**SELF-STUDY REPORT**

**1.Profile of the Affiliated/ConstituentCollege**

1. **Name and Address of the College:**

|  |  |  |
| --- | --- | --- |
| **Name:** | SHAHEED BHAGAT SINGH STATE TECHNICAL CAMPUS | |
| **Address:** | NH-95, MOHA ROAD,FEROZEPUR (PUNJAB) | |
| **City:** | Pin:152004 | State:PUNJAB |
| **Website:** | www.sbsstc.ac.in | |

2. **For Communication:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Designation | Name | Telephone  withSTDcode | Mobile | Fax | Email |
| **Principal** | Dr. T.S.Sidhu | O:  R: | 82880 12001 | 01632-242138 | tdsidhu@rediffmail.com |
| **VicePrincipal** |  | **O: R:** |  |  |  |
| **Steering Committee Co-ordinator** |  | **O: R:** |  |  |  |

**3. Status of the Institution:** Affiliated College

**4**. **Type of Institution:**

**a. By Gender**

Co-education

**b. By Shift**

Regular

**5. It is are cognizedminorityinstitution?**

No

**Ifyes specify the minority status(Religious/linguistic/anyother)andprovide documentary evidence.**

**6. Source soffunding:** Government

**Grant-in-aid Self-financing Anyother**

**7. a.Date of establishment of the college:** april, 1994(**dd/mm/yyyy)**

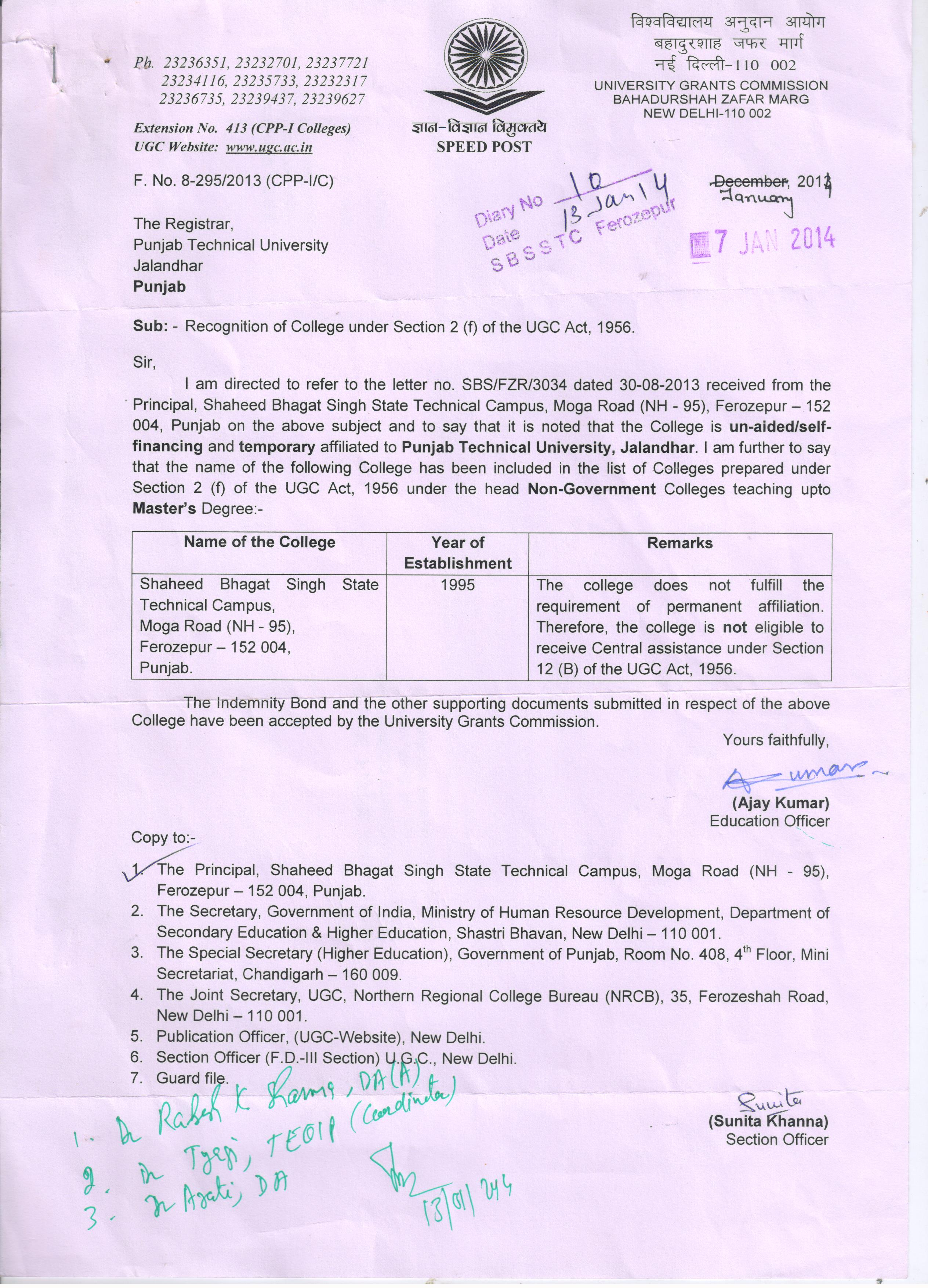
**b.University to which the college is affiliated/or which governs the college(If it is a constituent college**)

Punjab Technical University

**c.Details of UGC recognition:**

|  |  |  |
| --- | --- | --- |
| **Under Section** | **Date,Month&Year**  **(dd-mm-yyyy)** | **Remarks(Ifany)** |
| **i.2(f)** | 07/01/2014 |  |
| **ii.12(B)** | Applied For |  |

**(Enclose the Certificate of recognitionu/s2(f) and 12(B) of the UGCAct)**



**d. Details of recognition/approval by statutory/regulatory bodies other thanUGC (AICTE,NCTE,MCI,DCI,PCI,RCI etc.)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **UnderSection/**  **clause** | **Recognition/Approval details Institution/Department Programme** | **Day,Month and Year**  **(dd-mm-yyyy)** | **Validity** | **Remarks** |
| i.AICTE(Regulations 2012 notified by the Council vide  notification number F-No.37-3/Legal/2012 dated 27/09/2012 and norms standards | F.No. North-West/1-2016385775/2014/EOA  SHAHEED BHAGAT SINGH State Technical Campus / ENgineering  STATE TECHNICAL CAMPUS/All Engg. ,MCA,MBA,Diploma Programme | 04-06-2014 | 2014-2015 |  |
| **ii.** |  |  |  |  |
| **iii.** |  |  |  |  |
| **iv.** |  |  |  |  |

Therecognition/approvalletter is available on college web site

**8. Does the affiliating university Act provide for confermen to fautonomy (asrecognized by theUGC), on its affiliated colleges?**

Yes

**If yes, has the College applied for availing the autonomousstatus?**

Yes

**9. Is the college recognized**

**a. by UGC asa College with Potential for Excellence (CPE)?**

No

**If yes , date of recognition:……………………(dd/mm/yyyy)**

**b. for its performance by any other government alagency?**

**No**

**If yes, Name of the agency……………………and**

**Date of recognition:……………………(dd/mm/yyyy)**

**10. Location of the campus and area in sq.mts:**

|  |  |
| --- | --- |
| **Location\*** | Ruraland Border Area (Indo-Pak Border) |
| **Campusareainsq.mts.** | 98.2 ACERS |
| **Builtupareainsq.mts.** | 41961 Sq. Meter |

**(\*Urban,Semi-urban,Rural,Tribal,HillyArea,Any others specify)**

**11. Facilities available on the campus (Tick the available facility and provide numbersor other details at appropriate places)or incase the institute has an agreement with other agencies in using any of the listed facilities provide information on the facilities covere dunder the agreement.**

**• Auditorium/seminar complex with in frastructural facilities**

**• Sports facilities**

**∗ play ground**  YES

**∗ swimming pool** In-process

**∗ gymnasium**  YES

•**Hostel**

**∗Boys’hostel**

**i.Number of hostels** 04

**ii.Number of in mates** 1100

**iii. Facilities (mention available facilities)**

Guest Room

T.V. room with DTH Connection.

Common room for indoor Gaimes like Table-tennis, Cchess, Carom.

Fully Wi Fi Connected hotel.

Magazines and newspapers

Computer with internet facilities in Comman Room

Lush green parks in each hostel.

Fully furnished mess with fly tracker

RO treated drinking water

Gymanisum

**∗Girls’ hostel**

**i. Number of hostels 2**

**ii. Number of in mates 276**

**iii. Facilities**

Basket Ball Court

Two Badminton Courts

Guest Room and Comman Room

T.V. room with DTH Connection.

Residence for warden

Indoor Gaimes like Table-tennis, Cchess, Carom.

Computer with internet facilities in Comman Room

Fully Wi Fi Connected hotel.

Lush green parks in each hostel.

Fully furnished mess with fly tracker

RO treated drinking water

Gymanisum

**∗ Working women’s hostel:** NA

**i. Number of in mates**

**ii. Facilities(mention available facilities)**

**• Residential facilities for teaching and non-teaching staff(give numbers available—cadrewise)**

* **Director Residence**

**• A-Type Houses (1800 Sq.ft)**- 08Nos

**- B-Type Houses (1300 Sq.ft)-** 16 Nos

**- C-Type Houses (1000 Sq.ft)-** 24 Nos

• **D-Type Houses (750 Sq.ft)-** 12 Nos

- **E-Type Houses (600 Sq.ft)-** 24 Nos

- **F-Type Houses (450 Sq.ft)-**36 Nos

* **Cafeteria**—YES

• **Healthcentre**–YES

**Firstaid, Inpatient, Outpatient, Emergency care facility, Ambulance:** Yes

**…….Health centre staff–**

|  |  |  |
| --- | --- | --- |
| **Qualified doctor** | **Fulltime** | Part-time |
| **Qualified Nurse** | Fulltime | **Part-time** |

•**Facilities like banking, postoffice, book shops** YES

•**Transport facilities to cater to the needs of students and staff**YES

•**Animal house** NO **Not required**

•**Biological waste disposal** YES

•**Generator or other facility for management/regulation of electricity and voltage**

YES

•**Solid was te management facility** YES

•**Waste water management** YES

•**Water harvesting** YES

**12. Details of programmes offered by the college (Give data for current academic year)**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **SI. No.** | **Programme**  **Level** | **Nameofthe**  **Programme/**  **Course** | **Duration** | **Entry**  **Qualification** | **Mediumof instruction** | **Sanctioned/**  **approved**  **Student**  **strength** | **No.of students admitted** |
|  | **Under-Graduate** | B.TECH  BCA | 4YEAR | 10+2 | Eng. | 600  60 | 575 |
|  | **Post-Graduate** | M.TECH  MCA  MBA | 2YEAR  3YEAR  2YEAR | B.TECH | Eng | 179  60  60 | 79 |
|  | **Integrated Programmes PG** |  |  |  |  |  |  |
|  | **Ph.D.** | Ph.D | 03-05Years | P.G Degree | Eng |  | 120 |
|  | **M.Phil.** |  |  |  |  |  |  |
|  | **Certificate courses** | DIPLOMA | 3YEAR | Matric | **Eng** | 350 | 213 |
|  | **UGDiploma** |  |  |  |  |  |  |
|  | **PGDiploma** |  |  |  |  |  |  |
|  | **AnyOther (specifyand providedetails)** | 10+2 | 02 years | Matric | Eng | 50+50 | 43+45 |

**13. Does the college offer self-financed Programmes?**

No

**If yes ,howmany?**

**14. New programmes introduced in the college during the last five years if any?**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Yes |  | **No** |  | **Number** | 07 |

**15. List the departments : (respond if applicable only and do not list facilities like Library , Physical Education as departments, unless they are also offering academic degree awarding programmes. Similarly, do not list the departments offering common compulsory subjects for all the programmes**

**Like English, region all anguagesetc.)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Faculty** | **Departments**  **(eg. Physics, Botany, History etc.)** | **UG** | **PG** | **Research** |
| **Science** | Applied Sciences and humanities | No | No | Yes |
| **Arts** | **Applied Sciences and Humanities** | **No** | **No** | **Yes** |
| **Commerce** |  |  |  |  |
| **Management** | **Department of Management** | **No** | **Yes** | **Yes** |
| **Computer Applications** | **Department of Comp. App.** | **Yes** | **Yes** | **Yes** |
| **Engineering** | **1. Dept. of Mechanical Engg.**  **2. Dept. of Chemical Engg.**  **3. Dept. of Comp. Sc. & Engg.**  **4. Dept. of Electrical Engg.**  **5. Dept. of Elect. Comm. Engg.**  **6. Dept. of Civil Engg.** | **Yes**  **Yes**  **Yes**  **Yes**  **Yes**  **Yes** | **Yes**  **Yes**  **Yes**  **Yes**  **Yes**  **Yes** | **Yes**  **Yes**  **Yes**  **Yes**  **Yes**  **No** |

**16. Number of Programmes offered under (Programme means adegreecourse likeBA,BSc,MA, M.Com…)**

**a. Yearly System: No**

**b**. semester system: **14 (7UG+7PG)**

**17. Number of Programmes with**

**a. Choice Based Credit System**  Nil

**b. Inter/Multi disciplinary Approach** 06

**c. Any other (specify and providedetails)**

**6. Does the college offer UG and/or PGprogrammes in Teacher Education?**

No

**If yes,**

**a. Year of Introduction of the programme(s)………………… (dd/mm/yyyy)**

**and number of batches that completed the programme b. NCTE recognition details (if applicable)**

**Notification No.:……………………………………Date: ……………………………(dd/mm/yyyy)**

**Validity:………………………..**

**c. Is the institution opting for assessment and accreditation of Teacher Education**

**Programmeseparately?Yes No**

**19. Does the college offer UG or PG programme in Physical Education?**

No

**If yes,**

**a. Year of Introduction of the programme(s)……………….(dd/mm/yyyy)**

**and number of batches that completed the programme b. NCTE recognition details (if applicable)**

**Notification No.:……………………………………Date: ……………………………(dd/mm/yyyy) Validity:……………………**

**c. Is the institution opting for assessment and accreditation of PhysicalEducation**

**Programmeseparately?Yes No**

**20. Number of teaching and non-teaching positions in the Institution**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Positions** | **Teachingfaculty** | | | | | | **Non-teaching staff** | | **Technical staff** | |
| **Professor** | | **Associate**  **Professor** | | **Assistant**  **Professor** | |
|  | **\*M** | **\*F** | **\*M** | **\*F** | **\*M** | **\*F** | **\*M** | **\*F** | **\*M** | **\*F** |
| Sanctionedbythe UGC/University/ StateGovernment  *Recruited* | 12 | 03 | 17 | 05 | 57 | 47 | 39 | 06 | 70 | 05 |
| *Yettorecruit* |  |  |  |  |  |  |  |  |  |  |
| Sanctionedbythe Management/ societyorother authorizedbodies *Recruited* | NIL | NIL | NIL | NIL | NIL | NIL | NIL | NIL | NIL | NIL |
| *Yettorecruit* |  |  |  |  |  |  |  |  |  |  |

**\*M-Male\*F-Female**

**21. Qualifications of the teaching staff:**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Highest qualification** | **Professor** | | **Associate**  **Professor** | | **Assistant**  **Professor** | | **Total** |
| **Male** | **Female** | **Male** | **Female** | **Male** | **Female** |
| **Permanentteachers** | | | | | | |  |
| **D.Sc./D.Litt.** |  |  |  |  |  |  |  |
| **Ph.D.** | 12 | 03 | 08 | 01 | 02 |  | 26 |
| **M.Phil.** |  |  |  |  | 01 | 01 | 02 |
| **PG** |  |  | 09 | 04 | 24 | 08 | 45 |
| **Temporaryteachers** | | | | | | |  |
| **Ph.D.** |  |  |  |  |  |  |  |
| **M.Phil.** |  |  |  |  |  |  |  |
| **PG** |  |  |  |  | 22 | 32 | 54 |
| **Part-timeteachers** | | | | | | |  |
| **Ph.D.** |  |  |  |  |  |  |  |
| **M.Phil.** |  |  |  |  |  |  |  |
| **PG** |  |  |  |  | 08 | 06 | 14 |

**22. Number of Visiting Faculty/Guest Faculty engaged with the College.**

Nil

**23. Furnish the number of the students admitted to the college during the last four academic years.**

[Correction Needed: Data must include all courses (UG, PG, PhD, Regular, Part Time) mentioned above.

Exclude 9-10, Include 13-14]

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Categories** | ***2009-2010*** | | **2010-2011** | | **2011-2012** | | **2012-13** | |
| ***Male*** | **Female** | **Male** | **Female** | **Male** | **Female** | **Male** | **Female** |
| **SC** | 71 | 19 | 87 | 19 | 104 | 19 | 58 | 31 |
| **ST** |  |  |  |  |  |  |  |  |
| **OBC** |  |  |  |  |  |  |  |  |
| **General** | 348 | 123 | 369 | 137 | 357 | 125 | 339 | 112 |
| **Others(Fee waiver+LEET))T)** | 22+65 | 16+18 | 14+66 | 07+23 | 17+89 | 04+15 | 16+20 | 05+4 |

**24. Details on students enrollment in the college during the current academic year**:

[Correction Needed: Show data for 14-15]

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Type of students** | **UG** | **PG** | **M.Phil.** | **Ph.D.** | **Total** |
| **Students from the same**  **State where the college is located** | 291 | 74 | nIL | 120 | **485** |
| **Students from other states of India** | 284 | 05 | Nil |  | **289** |
| **NRI students** | Nil |  | *Nil* | nil |  |
| **Foreign students** | Nil |  | Nil | nil |  |
| **Total** | 575 | 79 |  | 120 | **774** |

**25. Drop outrateinUG and PG (average of thelast two batches) UG PG NIL**

The dropout rate is nil because our affiliating university PTU, Jalandhar follows ‘carryon’ system

**26. Unit Cost of Education**

***(Unitcost=total annual recurring expenditure (actual) divided by total number of students enrolled)***

1. **including the salary component Rs.100000.00**
2. **excluding the salary component Rs.30000.00**

**27. Does the college offer any programme/sin distance education mode (DEP)?**

**No**

**If yes,**

**a) Is it are glistered centre for offering distance education programmes of another University**

**Yes No**

**b) Name of the University which has granted such registration.**

**c) Number of programmes offered**

**d) Programmes carry the recognition of the Distance Education Council.**

**Yes No**

**28. ProvideTeacher-student ratio for each of the programme/course offered**

01:15

**29. Is the college applying for**

**Accreditation: Cycle1 Cycle2 Cycle3 Cycle4**

**Re-Assessment:**

***(Cycle1 refers to first accreditation and Cycle 2 , Cycle 3 and Cycle4 referstore- accreditation)***

***Yes, For Cycle 01***

**30. Date of accreditation\* (applicable for Cycle2, Cycle3 , Cycle4 and re-assessment only)**

**Cycle1:………………(dd/mm/yyyy) AccreditationOutcome/Result….…....Cycle2: ………………(dd/mm/yyyy) AccreditationOutcome/Result…….....Cycle3:……………… (dd/mm/yyyy) AccreditationOutcome/Result…….....**

***\*Kindly enclose copy of accreditation certificate (s) and peer teamer port (s) asan annexure.***

***Not Applicable***

**31. Number of working day sduring the last academic year.**

**192 days**

**32. Number of teaching days during the last academic year**

**154 days**

***(Teaching days means day son which lectures were engaged excluding the examination days****)*

**33. Date of establishment of Internal Quality Assurance Cell (IQAC) IQAC 15.01.2014**

**34. Details regarding submission of Annual Quality Assurance Reports (AQAR)to**

**NAAC.**

**AQAR (i) ………………(dd/mm/yyyy) AQAR(ii)………………(dd/mm/yyyy)**

**AQAR(iii)………………(dd/mm/yyyy)**

**AQAR (iv) ………………(dd/mm/yyyy**)

Not Applicable

**35. Any other relevant data (not covered above) the college would like to include. (Do**

**Not include explanatory/descriptive information)**

**2.Criteria-wise Inputs**

**CRITERIONI: CURRICULAR ASPECTS**

**1.1 Curriculum Planning and Implementation**

* + 1. **State the vision, mission and objectives of the institution, and describe how these are communicated to the students, teachers, staff and other stake holders.**

**Vision**

|  |
| --- |
| To be identified as preferred destination for professional studies responsive to industrial and societal needs of the country. |
|  |

**Mission**

|  |
| --- |
| 1. Development of technically competent manpower with requisite analytical, theoretical and managerial skill and practical exposure. 2. All round development of students, staff and faculty by providing conducive environment and infrastructure for learning, skill development and research. 3. Imbibing versatility, adaptability and yearning for excellence amongst students with highest ethical values as their inner strength. |

HOW THEY ARE COMMUNICATED TO THE STUDENTS, TEACHERS, STAFF AND OTHER STAKEHOLDERS

1. Through Display Boards at all important locations in the Institute Buildings
2. Web-site
3. College Information Brochures
   * 1. **How does the institution develop and deploy action plans for effective implementation of the curriculum? Give details of the process and subs tantiate through specific example(s).**

[A] A course file is maintained for each subject comprising of following documents:

1. Day wise Teaching Plan for the whole course curriculam to be covered in the semester.
2. Planning of weekly Assignments and Tutorial sheets to be given to the students
3. Teaching Material
4. Accademic calendar showing the schedule of academic support activities of the semester

[B] Curriculum is divided into three parts. After completion of each part MSTs are conducted.

[C] Students are given assignments and tutorials as per the plan contained in the course file

* + 1. **What type of support (procedural and practical) do the teachers receive( from the University and/orinstitution) for effectively translating the curriculum and improving teaching practices?**

[A] Institute has provided a well stocked library and e-resources for facilitating its teachers to effectively implement the curriculum.

[B]Smart class rooms are available in the enabling teachers to deliverlectures through ppts and other multimedia means.

[C] Wi-fi and dedicated internet facilities are provided in the laboratories, faculty offices as well as in the library. It enhances their potential for effectively translating the curriculam and improving teaching practices.

[D] Wi-fi and dedicated internet facilities arealso provided in the each residence in the campus for providing academic support to teachers round the clock.

[E] Institute regularly sponsors its faculty for FDPs to improve their skills in their respective fields.

[F] Institute has provided EDU-SAT facility for effectively and efficiently delivering the course contents.

[G] Institute has also given individual laptop to each faculty member.

1.1.4 **Specify the initiative staken up orcontribution made by the institution for effective curriculum delivery and transactionon the Curriculum provided by the affiliating University or other Statutoryagency**.

[A] A number of workshops comprising of senior faculty members of the institute as well as faculty members from other institutes especially from IITs, NITs etc. are conducted for effectively preparing the course plan of individual curriculum.

[B] Faculty development and orientation programmes are organised in the institute from time to time for the junior faculty for effective curriculam delivery of the different courses.

[C] Institute conducts three MSTs for monitoring the delivery of course curriculam.

1.1.5 **How does the institution network and interact with beneficiaries such as industry, research bodies and the university in effective operationali sation of the curriculum?**

1. The chairman of BOG is an Industrialis who directly provides his inputs
2. There are representatives of Industry, university and eminent educationistsas members of the governing body.

3. The institute has signed MOUs with many industries.

4. Institute has started the practice of offering its students value added courses recommended by the employing industries

5. Eminent personalities from reputed companies are invited to the institute for delivering lectures and interaction with the students.

6. Eminent professors from foreign institutions conduct workshopevery year for the faculty members and students.

7. Students are sent to six month training in the final year of their degree programme to various Industries to provide them the practical exposure for practical implementation of theoretical concepts.

8. Institute has got number of projects from AICTE, DST and other research organizations which help the students to carry out their minor and major projects.

9. Our institution has different collaborations with National & Foreign Universities which helps the students and faculties for their higher studies and research.

1.1.6 **What are the contributions of the institution and /orits staff members to the development of the curriculum by the University?(number of staff members/departments represented on the Board of Studies , student feed back ,teacher feed back, stake holder feed back provided, specific suggestions etc.**

1. This institute is an affiated Institute of Punjab Technical University Jalandhar and therefore we have to follow the curriculum designed by the affiliating university. Howevermany faculty members are members of University Board of Study, which administers the framing of curriculum and all related issues.

|  |  |
| --- | --- |
| Number of Departments Represented on the Board of Studies | 03 |
| Number of Staff Members on Board of Studies | 04 |
| Student Feedback taken for Curriculum Development | Yes |
| Teacher Feedback taken for Curriculum Development | Yes |
| Stakeholder Feedback taken for Curriculum Development | Yes |

1. The institute regularly interacts with various stakeholders such as Industry, Alumni, Parents, Faculty, Students etc. And their feedbacks are taken into consideration and accordingly conveyed to the board of studies of affiliating universities.
2. In addition to the prescribed experiments, various additional experiments are designed and conducted at the institutional level to enhance the skills of the students.

1.1.7 **Does the institution develop curriculum for any of the courses offered (other than those under the purview of the affiliating university) by it ? If‘ yes’ ,give details on the process (’Needs Assessment’,design,development and planning) and the courses for which the curriculum has been developed.**

Yes.

[A] As the institute often have interaction with Industry, alumni and other stakeholders, therefore based on their feedbacks the existing course contents are reviewed and assessed at the departments’ level. Consequently, as per the requirements each department of the Institute offersadditional value added courses to fill up the gap.

[B] Recently, on the feedback of Infosys five new value added courses have been added in the course curriculam of Computer Science and Engineering.

1.1

1.1.8 **How does institution analyze/ensure that the stated objectives of curriculum are achieved in the course of implementation?**

1. The institute conducts three MSTs to measure the performance of the students in the respective subjects.
2. Students are given minor projects related to the course contents to check their theoretical and practical knowledge.
3. Assignments and Tutorial Sheets are given to the students regularly as per course plan
4. Student Feed Back is taken twice in each semester.

**1.2 AcademicFlexibility**

1.2.1 **Specifying the goal sand objectives give details of the certificate/diploma/skill development courses etc. , offered by the institution**.

To provide conducive environment for all round development of the students the institute offers various integrated courses such as 10+2 and three year Engineering Diploma Programme. The meritorious students after 10+2 are encouraged to enroll for B.Tech. Programmes. Similarly, students after three year Diploma are directly admitted in Second year.

1.2.2 **Does the institution offer programmes that facilitate twinning/dual degree? If ‘yes’,give details.**

No. Institute does not offer twinning or dual degree courses

1.2.3 **Give details on the various in stitutional provisions with reference to academic flexibility and how it has been help ful to students in terms of skills development, academicm obility,progression to higher studies and improved potential for employ ability. Issues may cover the following and beyond:**

**• Range of Core/Elective options offered by theUniversity and those opted by the college**

**• Choice Based Credit System and range of subject options**

**• Courses offered in modular form**

**• Credittransfer and accumulation facility**

**• Lateral and vertical mobility within and acrossprogrammesandcourses**

• **Enrichment courses**

1. Institute allows lateral admissions to 2nd year of B.Tech and MCA courses.

2. It offers a range of enrichment courses called Value Added Courses.

3. From Semester I to IV, the students are offered common courses. From semester V to VIII, the students are offerd nearly 20% elective courses.

4. For all round development of the students, open electives are offered which can be opted by the students of all the branches.

1.2.4 **Does the institution offer self-financed programmes? If‘ yes’, list the man dindicate how they differ from other programmes,with reference to admission, curriculum, feestructure, teacher qualification,salary etc.**

No

1.2.5 **Does the college provide additional skill oriented programmes, relevant toregi onaland global employment markets? If‘yes’ provide details of such programme and the beneficiaries**.

1. Yes, five new value added courses have been added in the course curriculam of Computer Science and Engineering based on the feed back from INFOSYS.
2. Students from V semester onwards are also imparted with soft skill training to improve their communication and interpersonal skills.

1.2.6 **Does the University provide for the flexibility of combining the conventionalface-to-face and Distance Mode of Education for students to choose the courses/combination of the irchoice”If**

**‘yes’, how does the institution take advantage of such provision for the benefit of students**?

No

**1.3 CurriculumEnrichment**

1.3.1 **Describe the efforts made by the institution to supplement the University’s Curriculum to ensure that the academic programme sand Institution’s goal sand objective sare integrated?**

In order to integrate the goals and objectives of the institution with university Curriculum, following supplementary efforts are being made by the institution:

1. Content beyond syllabus has been added in the curriculum of each subject.
2. The faculty members are encouraged to attend refresher courses, faculty development programmes to enchance their knowledge and skills.
3. Students are sent to six months training to bridge the gap between theoretical knowledge and practical skills.

1.3.2 **What are the efforts made by the institution to enrichand organize the curriculum to enhance the experiences of the students so as to cope with the needs of the dynamic employment market?**

1. In hand practical training is given to the students of all disciplines in the central workshop of the institute.
2. Basic courses on information technology and environment are offered to students of students of all the disciplines.
3. The faculty is encouraged to teach beyond the contents of the syllabus to enhance the experience.
4. The institute hassix different societies which reinforce the knowledge of students by conduct of technical events related to their fields.
5. Value added courses based on industry feed back are being taught.

1.3.3 **Enumerate the efforts made by the institution to integrate the cross cutting issues such as Gender, Climate Change, Environmental Education, Human Rights, ICTetc., into the curriculum?**

The efforts made by the institution to integrate the cross cutting issues such as Gender, Climate Change, Environmental education, Human Rights, ICT etc are as follows:

1. The institution has a Women‘s Grievance Cell to take care of the various sensitive issues regarding the Women‘s right and security. The Cell consists of senior lady faculty and staff members of the institute.
2. The institute regularly conducts seminar/lecture series on human values and moral/ethical practices.
3. In the university curriculam following special courses have been added for all the students to impart human values, environmental education, Computer skills amongst others:

i) Human values

ii) Environmental sciences

iii)Fundamental of Computer Programming & Information Technology

1.3.4 **What are the various value-added courses/enrichment programmes offered to ensure holistic development to students?**

§ **Moral and ethical values**

§ **Employable and life skills**

§ **Better care eroptions**

§ **community orientation**

* + - * 1. The following value added courses are being taught to the students:
  1. Mobile Application Development
  2. Business Intelligence
  3. Essentials of Information Technology
  4. Web Technology
  5. Essentials of Management
  6. Industrial Engineering
     + - 1. Regular classes on values and ethics are conducted. Eminent speakers are called to speak on different social issues.
         2. Soft skills classes for third year and final year students are regularly conducted.
         3. The Industry-Institute-Interaction Cell (IIIC) regularly conducts workshops and lectures in collaboration with industry personnels.

1.3.5 **Citing a few examples enumerate on the exten to fuse of the feedback from stake holders in enriching the curriculum?**

1. Feedback from Alumni: Regular feedback is taken from the alumni and various suggestions are incorporated in improving the knowledge and skills of the students.
2. Existing Students Feedback: In each semester, feedback is taken twice from each student. The concerened faculty is apprised with the feedback and corrective actions are taken.
3. Feedback from Employers: The feedback forms are regularly sent to the current employers and their feed back is utilized for providing feed back to university for revision of curriculum.
4. Board of Governors (BOG): Regular BoG meetings are held in the Institute and many advises and suggestion are discussed and accepted.

1.3.6 **How does the institution monitor and evaluate the quality of its enrichment programmes?**

The institute monitors and evaluates the quality of its enrichment programs through:

1. Student feed back
2. Regular MSTs
3. Alumni feedback
4. Student minor and major projects

**1.4 FeedbackSystem**

1.4.1 **What are the contributions of the institution in the design and development of the curriculum prepared by the University**?

The institute is affiliated to Punjab Technical University, Jallandhar. Therefore there is no direct role of the institute in the design and development of the curriculum. However, many faculty members are members of University Board of Studies, which administers the framing of curriculum and all related issues. Moreover, the feedback taken from the various institute stakeholders is continuously sent to the members of the university Board of studies.

1.4.2 **Is there a formal mechanism to obtain feed back from students and stake holders on Curriculum? If ‘yes’, how is it communicated to the University and made use internally for curriculumen richment and introducing changes/new programmes?**

Yes, a formal mechanism to obtain feedback from students and stakeholders on curriculum is in place.

1. Feedbak from the students is taken twice in each semester. After analyzing the feedback, it is communicated to the concerened faculty and teaching learning gaps are identified. These gaps are communicated to the university.
2. Feedback from the various stakeholders such as alumni, parents, employers is obtained at regular intervals to acess the curriculum gaps. The suggestions/changes/ upgradations in the curriculum are conveyed to the University for Necessary Action.

1.4.3 **How many new programmes/courses were introduced by the institution during the last four years? What was the rationale for introducing new courses/programmes?)**

**Any other relevant information regarding curricular aspects which the college would like to include.**

Courses started in last four years

B.Tech. Civil Engineering

M.Tech in Computer Science and Engineering

M.Tech in Electronics and Communication Engineering

M.Tech in Mechanical Engineering

Rationale:

1. Demand of the Civil Engineering Graduates due to huge thrust of Governments on Infrastructure development, Growth in Reality sector and commissioning of large number of Hydal and thermal power projects.
2. No Institute in this backward area of Punjab is offering this course
3. PG courses were started to motivate the students for higher education to enhance the R & D activities
4. To develop the skills and knowledge of students in specialised areas.

**CRITERIONII: TEACHING-LEARNINGANDEVALUATION**

**2.1 StudentEnrollmentandProfile**

2.1.1 **How does the college ensure publicity and transparency in the admission process?**

The admission to all B. Tech. courses is conducted in two phases.

Phase I. In first phase the admissions are based on JE enterence test examination and are conducted through online eommon counseling by PTU jalandar. Publicity of phase 1 is carried out by the university itself through advertisements in all leading English newspers across indiaand website etc.

Phase II. After complication of phase I, the leftover seats are filled through direct counseling held by institute in the campus. These admissions are also based on marit of JEE main test. For direct counseling, advertisements are published in atleast 3 leading newspapers and the institute website.

2.1.2 **Explain in detail the criteria adopted and process of admission (Ex. (i) merit (ii) common admission test conducted by state agencies and national agencies (iii) combination of merit and entrance test or merit, entrance test and interview (iv) any other)**

**To various programmes of the Institution**.

The admission is made through online centralized councelling conducted by Punjab Technical Universiy Jalandhar based on the ranking of test conducted by national agency JEE mains/GATE

2.1.3  **Give the minimum and maximum percentage of marks for admissionatentry level for each of the programmes offered by the college and provide acomparison with other colleges of the affiliating university within the city/district.**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Course Name | SBSSTC | | DRTC | | FCET | | AIET | |
| Min | Max | Min | Max | Min | Max | Min | Max |
| ME |  |  |  | 10+2 |  | 10+2 |  | 10+2 |
| CSE | 115957 | 1127342 |  | 10+2 |  | 10+2 |  | 10+2 |
| EE | 75019 | 1179622 |  | 10+2 |  | 10+2 |  | 10+2 |
| CE | 70644 | 10+2(52.2%) |  | 10+2 |  | 10+2 |  | 10+2 |
| ECE | 101553 | 10+2(50.3%) |  | 10+2 |  | 10+2 |  | 10+2 |
| CHE | 138991 | 10+2(55%) |  | 10+2 |  | 10+2 |  | 10+2 |
| MBA | 73.8% | 46.9% |  |  |  |  |  |  |
| MCA | 78.07% | 56.1% |  |  |  |  |  |  |

2.1.4 **Is the reamechanism in the institution to review the admission process and student profiles annually? If ‘yes’ what is the out come of suchan effort and how has it contributed to the improvement of the process?**

Yes there is a mechanism to review the admission process. There is aadmission committee composed of professor and Asstt. Professor.The procedure is being followed by the institute from the last 14 years and we have evolved it into a flawless procedure. During review of admission that is conduct by university, no discrepancy has been found till date.

2.1.5 **Reflecting on the strategies adopted to increase/improveaccess for following categories of students, enumerate on how the admission policy of the institution and its student profiles demonstrate/reflect the National commitment to diversity and inclusion**

**∗ SC/ST**

∗ **OBC**

**∗ Women**

**∗ Differentlyabled**

**∗ Economicallyweakersections**

**∗ Minoritycommunity**

**∗ Anyother**

The institute follow the reservation policy of Punjab Govt. which is in synchronization with commitment todiversityand integrity of the nation.

|  |  |  |
| --- | --- | --- |
| **S N** | **85% Category** | **%**  **Reservation** |
|  | |
| 1 | Scheduled Castes / Scheduled Tribes | 25 |
| 2 | Backward Classes | 5 |
| 3 | (a) Border Area | 2 |
|  | (b) Backward Area | 2 |
| 4 | Sportspersons | 2 |
| 5 | Children / Grand Children of Freedom Fighters | 1 |
| 6 | Disabled Persons |  |
| (a)     Blind | 1 | |
| (b)     Deaf & Dumb | 1 | |
| (c)     Other Handicapped | 1 | |
| 7 | Defence / Ex-servicemen | 2 |
| 8 | Para-military Personnel | 2 |
| 9 | Victims of terrorist violence(1984 riots) | 2 |
| 10 | Tsunami victims | 1 |
| 11 | General | 53 |
|  | **15% Category** |  |
| 1 | General | 70 |
| 2 | SC / ST | 25 |
| 3 | Backward | 5 |

In addition to this 5% addition seats are reserved for economically weaker students (EWS).

2.1.6 **Provide the following details for various programmes offered by the institution during the last four years and comment on the trends. i.e. reasons for increase/decrease and actions initiated for improvement.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Programmes** | Year | **Numberof applications** | **Numberof studentsadmitted** | **Demand**  **Ratio** |
| B.Tech CSE  B.Tech ECE  B.Tech ME  B.Tech EE  B.Tech CE  B.Tech CHE | 2011  2012  2013  2014  2011  2012  2013  2014  2011  2012  2013  2014  2011  2012  2013  2014  2011  2012  2013  2014  2011  2012  2013  2014 |  | 151  148  110  114  112  113  65  41  148  151  148  186  74  73  75  61  73  76  75  126  35  35  36  18 |  |
| M.Tech CSE  M.Tech ECE | 2013  2014  2013  2014 | 18  18  17  18 |  |  |

To improve the intake/admission, various committees are constituted at institute level to visit the nearby schools and colleges to make them aware regarding the strength of the institute and benefits of the courses being run in the institute and so as to motivate them to join the institute.

**2.2 Catering to Student Diversity**

2.2.1 **How does the institution cater to the needs of differently-abled students and ensure adherence to government policies in this regard?**

1. Seats are reserved for differently abled studnts as per policy of govt. of Punjab
2. To cater to the specific needs of differently abled students, each building of the college has been provided with ramp at the entry of the building. Separate toilets are also provided to them.

2.2.2 **Does the institution assess the students’ needs interms of knowledge and skills before the commencemen to the programme? If ‘yes’ , give details on the process**.

Yes, the students are admitted based on the test JEE conducted by national agencies.

2.2.3 **What are the strategies adopted by the institution to bridge the knowledge gap of the enrolled students(Bridge/Remedial/ Add-on/Enrichment Courses, etc.)to enable them to cope with the programme of their choice?**

Tobridgethe knowledge gapoftheenrolledstudents, the institute adoptedthe following stretsagies.

1. Conduct remedial classess.
2. Offer additional courses on soft skills and personality development.
3. Offered IT and technology enriched courses recommended by employers/industries
4. Offered additional value added courses.

2.2.4 **How does the colleges ensitize its staff and students on issues such as gender, inclusion, environment etc.?**

**To sensitize its staff and students on issues such a gender inclusion enviourment etc. following practices are carried out:**

1. A common course on environment science is offered in first year for all the branches.
2. A course on Human and Moral Values is taught to all the students.
3. The institute offers platform like NSS, NCC and Ecofriendly society to all the students (boys & girls) for practicing work towards these issues.
4. In addition to this, the institute has established vivakanand society for staff and students.

2.2.5 **How does the institution identify and respond to special educational/learning needs of advanced learners?**

1. Keeping in view the needs of advanced learner, the institute offers PhD in science & humanties and Engineering.
2. The institute is giving seed grants to students for carring out research and development activities.
3. The institute allow them to participate in various workshops to develop their skills in different ares of study.
4. The students are motivated and sponsored to present the research papers in the conferences.

2.2.6 **How does the institute collect, analyze and use the data and information on the academic performance (through the programme duration) of the students at risk of drop out (students from the disadvantaged sections of society, physically challenged, slow learners, economically weakers ections etc. Who may dis continue their studies if some sort of supportis not provided)?**

The dropout rate is nil because our affiliating university PTU, Jalandhar follows ‘carryon’ system. However, we conduct remedial classes for weaker students free of costs.

**2.3 Teaching-Learning Process**

2.3.1 **How does the college plan and organize the teaching, learning and evaluation schedules? (Academic calendar, teaching plan, evaluation blue print, etc.)**

* + 1. **An A**cademic Calander is published every year showing the schedule of different curricular, co-curricular and extra curriculuar activities to be carried out during the semester.
    2. The academic calander of the college is planned at the beginning of each academic year by the committee of Director, Dean Academic and faculty incharge.
    3. Teaching and evaluation schedules are finalized by Dean Academics on the basis of PTU, Jalandhar.
    4. Teaching plan of each course is prepared by each teacher as a part of courses file.

2.3.2 **How does IQAC contribute to improve the teaching–learning process?**

1. IQAC committee ensure the implementation of feed back mechanisum for the improvement of taching learning process.
2. Faculty advisor for a group of 30 students is appointed to address their grievances.
3. The committee also finalises the courses of remedial classes on the basis of result of students.
4. It also recommends value added courses in coordination with Traing and Placement Officer.

2.3.3 **How is learning made more student-centric? Give details on the support structures and systems available for teachers to develop skills like interactive learning, collaborative learning and independent learning among the students?**

* + 1. Seminars, quizzes, group discussion and seminars are conducted to enhance the abilbility of the students to enhance their emplobility.
    2. Collaborative learing is promoted through projects, lab work, workshop, and industrial training modules.
    3. To promote independent learning, institute has provided facilities like central library , computer centre with 34 MBPS internet connectivity & campus wide WI-FY network.

2.3.4  **How does the institution nurture critical thinking, creativity and scientific temper among the students to trans form them into life-long learners and innovators?**

1. To promote ereativity, criticalthinking & scientifictemper amongthestudents, the institute has following machanisium.
2. The college has ISTE students chapter, SECA (Society for Extra curriculam activities)
3. Six Deparment wise Techanical Societies are existingto enchance the practical knowoldege and latest development through various activities.
4. ISTE student Chapter organize Techno-opus every year, where national level competitions on technical activities are organized such as project competitions, paper presentations in the students conference etc etc.

2.3.5 **What are the technologie sand facilities available and used by the faculty for effective teaching? Eg: Virtual laboratories, e-learning-resources from National Programme on Technology Enhanced Learning (NPTEL) and National Missionon Education through Information and Communication Technology (NME-ICT), open educational resources, mobile education, etc.**

1. The institute has smart class rooms well equipped with internet connectivity, computer MMPS & PA system
2. Subscription of e-journals accessible from every corner of the Campus
3. Institute has EDU-SAT facility for effectively and efficiently delivering the course contents.

2.3.6  **How are the students and faculty exposed to advanced level of knowledge and skills (blended learning, expert lectures, seminars, workshops etc.)?**

1. Different departments organize conferences (national, international), faculty development programmes, Expert Lectures.
2. Faculty is deputed to visit the institute and universities to provide them exposure of international standard of education.

2.3.7 **Detail (process and the number of students\benefitted) on the academic, personal and psycho-social support and guidance services (professional counseling/mentoring/academic advise) provided to students?**

1. College has a chief counselor for providing personal & psycho-social support for the students.
2. Faculty advisors are appointed for a group of 30 students for their academic grievances.
3. Training and Placement Officer provide them training and placement guidance.
4. A career guidance cell is constituted under the guidance of TPO for professional counseling.

2.3.8 **Provide details of innovative teaching approaches/methods adopted by the faculty during the last four years? What are the efforts made by the institution to encourage the faulty to adopt new and innovative approaches and the impact of such innovative practices on student learning?**

1. Multimedia teaching aids are used by the faculty for effectively and efficiently teaching to students.
2. Dedicated and WiFi internet facilities are available in the the class rooms, hostels and office of faculty for online delivering the assignments and tutorials to students.
3. The students get latest knowledge as these facilities enabled the teachers to explain the latest topics & concepts illustratively.

2.3.9  **How are library resources used to augment the teaching- learning process?**

1. In addition to text-books, library is equipped with reference books for the use of faculty.
2. Library is subscribed for E-journals and E-books for preparing the lecture effectively and efficiently.
3. Latest magazines on innovative technology are subscribed in the library for the use of faculty.

2.3.10 **Does the institution face any challenges incompleting the curriculum with in the planned time frame and calendar? If ‘yes’, elaborate on the challenges encountered and the institutional approaches to over come these.**

1. No, Usually curriculum is completed within the working days prescribed by the university.
2. However, extra classes are conducted sometimes in case any faculty member could not complete the curriculum in the stipulated time prescribed by the University.

2.3.11 **Howdoestheinstitutemonitorandevaluatethequalityof teachinglearning?**

1. There MST’s/Assignments/Tutorial sheets and internal Viva-voce Exam are conducted to evaluate the perfoprmance of students.
2. Minor projects are given to the students to check their therotical knowledge.
3. Feed-back forms are filled in by the students at the end of semester for assessment of teachers.

**2.4 TeacherQuality**

2.4.1 **Providethefollowingdetailsandelaborateonthestrategies adopted by the college in planning andmanagement(recruitmentandretention)ofitshumanresource(qualifiedand competentteachers)tomeetthechangingrequirementsofthe curriculum**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Highest Qualification** | **Professor** | | **Associate Professor** | | **Assistant Professor** | | **Total** |
| **Male** | **Female** | **Male** | **Female** | **Male** | **Female** |
| **Permanent Teachers** | | | | | | | |
| **D.Sc/D.Litt.** | **-** | **-** | **-** | **-** | **-** | **-** | **-** |
| **Ph.D.** | **12** | **03** | **08** | **01** | **02** | **-** | **26** |
| **M.Phil.** | **-** | **-** | **-** | **-** | **01** | **01** | **02** |
| **PG** | **-** | **-** | **09** | **04** | **24** | **08** | **45** |
| **Temporary Teachers** | | | | | | | |
| **Ph.D.** | **-** | **-** | **-** | **-** | **-** | **-** | **-** |
| **M.Phil.** | **-** | **-** | **-** | **-** | **-** | **-** | **-** |
| **PG** | **-** | **-** | **-** | **-** | **22** | **32** | **54** |
| **Pursuing PG** |  |  |  |  |  |  |  |
| **Part-Time Teachers** | | | | | | | |
| **Ph.D.** | **-** | **-** | **-** | **-** | **-** | **-** | **-** |
| **M.Phil.** | **-** | **-** | **-** | **-** | **-** | **-** | **-** |
| **PG** | **-** | **-** | **-** | **-** | **08** | **06** | **14** |

The following strategies are adopted by the institute in planning and management of its human resource to meet the changing requirements of the curriculum:

1. Efforts are made for all round development of the faculty by providing them condusive enviroinment for teaching and research activities.
2. Faculty is sponsored for higher study with full pay and study allowance equal to one fourth of his/her basic pay.
3. Research grant up to Rs. 3 lacs is given to each faculty members for carrying out research in their areas of interest.
4. Faculty is recruited from time to time as per the requirement.

2.4.2 **Howdoestheinstitutioncopewiththegrowingdemand/ scarcityof qualifiedseniorfacultytoteachnewprogrammes/ modern areas(emergingareas)ofstudybeingintroduced (Biotechnology,IT,Bioinformaticsetc.)?Providedetailsonthe effortsmadebytheinstitutioninthisdirectionandtheoutcome duringthelastthreeyears.**

Teachers are sponsored to participate in FDP’s, Seminars, conferences, workshops etc. in India & abroad.

Faculty members are sponsored by the institute for perusing higher studies (M.Tech, Ph.D.,Post Doctorate) in prestigious institutes.

The benefits of Career Advance Scheme (CAS) is given to faculty in order to retain them in the institute.

2.4.3 **Providingdetailsonstaffdevelopmentprogrammesduringthe lastfouryearselaborateonthestrategiesadoptedbythe institutioninenhancingtheteacherquality.**

a) Nominationtostaffdevelopmentprogrammes

|  |  |
| --- | --- |
| **AcademicStaffDevelopmentProgrammes** | **Numberoffaculty nominated** |
| Refreshercourses | 6 |
| HRDprogrammes | 5 |
| Orientationprogrammes | 1 |
| Stafftrainingconductedbytheuniversity | 27 |
| Stafftrainingconductedbyotherinstitutions | 53 |
| Summer/winterschools,workshops,etc. | 57 |

b) **FacultyTrainingprogrammesorganizedbytheinstitution toempowerandenablethe useofvarioustoolsand technologyforimprovedteaching-learning**

|  |  |  |
| --- | --- | --- |
| **Sr No:** | **FacultyTrainingprogrammes organized by CSE Deptt** | **Sponsored by** |
| 1 | Intelligent Computational Techniques | AICTE |
| 2 | Nature Inspired Computational Intelligence | AICTE |
| 3 | New Computing and Emerging Technologies in ICT | TEQIP-II |
| 4 | Cloud Computing | TEQIP-II |
| 5 | Intelligent Computational Techniques | AICTE |
| 6 | Nature Inspired Computational Intelligence | AICTE |
| 7 | Development of Wirelessly Computer Controlled Sensing Robots | TEQIP-II |
| 8 | Digital Image, Video & Medical Image Processing | TEQIP-II |
| 9 | Recent Trends in Optical & Wireless Communication Systems | TEQIP-II |
| 10 | Photonics | TEQIP-II |
| 11 | Multi Criterion Optimization Tools In Research | AICTE |
| 12 | Research Methodology- Tools And Techniques | TEQIP-II |
| 13 | Soft Skills For Technical Teachers | TEQIP-II |
| 14 | Role Of Industrial Engineering And Design In Present Scenario | TEQIP-II |
| 15 | Strengthening Industry Institute Interaction | TEQIP-II |
| 16 | Futuristic Materials | TEQIP-II |
| 17 | Managerial Skills | TEQIP-II |
| 18 | Recent Trends in Polymers, Composites & Their Engineering Applications | TEQIP-II |
| 19 | PLC | TEQIP II |
| 20 | Modelling and simulation in Advanced Matlab Enviroment | TEQIP II |
| 21 | A National Level One Week Short Term Course on Engineering Materials under TEQIP (Phase-II) during December 17-21, 2012. **(National /TEQIP)** | TEQIP-II |
| 22 | A National Level One Week Short Term Course on “Soft Skills for Technical Teachers under TEQIP (Phase-II) during September 2 - 6, 2013. **(National /TEQIP)** | TEQIP-II |
| 23 | A National Level Two Week Short Term Course on “Analytical Techniques for detection of Environmental Pollutants” from December 16-27, 2013 at SBS STC, Ferozepur. (**National/TEQIP).** | TEQIP-II |

v **Teachinglearningmethods/approaches**

**v Handlingnewcurriculum**

**v Content/knowledgemanagement**

**v Selection,developmentanduseofenrichmentmaterials**

**v Assessment**

**v Crosscuttingissues**

**v AudioVisualAids/multimedia**

**v OER’s**

**v Teachinglearningmaterialdevelopment,selection anduse**

**c) Percentage of faculty**

**∗ invitedasresourcepersonsinWorkshops/Seminars/ Conferencesorganizedbyexternalprofessionalagencies**

30/123 = 24.39%

∗ participated in external Workshops / Seminars / Conferences recognizedby national/ internationalprofessionalbodies

69/123 = 56.09%

∗ presentedpapersinWorkshops/Seminars/Conferences conductedorrecognizedbyprofessionalagencies

59/123 = 47.96%

2.4.4 **Whatpolicies/systemsareinplacetorechargeteachers?(eg: providingresearchgrants,studyleave,supportforresearchandacademicpublications teachingexperienceinothernationalinstitutionsandspecializedprogrammesindustrialengagementetc.)**

* 1. Research Grant: Post Graduate teachers are given seed grant up to Rs. 25000/- to initiate research activity. Doctorate level teacher are given research grant up to Rs. 1.5 lac per annum to initial the research work in their areas of interest..
  2. Study Leave: - The institute provides the study leave upto 3 years with full salary + 20% as per the institute by laws.
  3. The institute sponsors participation/presentation of one paper in international conferences once in three years.

2.4.5 **Givethenumberoffacultywhoreceivedawards/recognition atthestate, nationalandinternationallevelforexcellencein teachingduringthe lastfouryears.Enunciatehowtheinstitutionalcultureand environmentcontributedtosuch performance/achievement of the faculty.**

Nil

2.4.6 **Hastheinstitutionintroducedevaluationofteachersbythe studentsandexternalPeers?Ifyes,howistheevaluationused forimprovingthequalityoftheteaching-learningprocess?**

YES, The feed-back forms filled by the students are evaluated by a committee and the corresponding feed-back is shared by HOD with the respective teacher for his/her information and improvements.

**2.5 EvaluationProcessandReforms**

2.5.1 **Howdoestheinstitutionensurethatthestakeholdersofthe institution especiallystudentsandfacultyareawareofthe evaluationprocesses?**

1. Evaluation process is mentioned in institute Brochure.
2. Office of Dean Academics displays notices on notice board from time to time.
3. Evaluation process is displayed on the institute web-site.
4. Parents- teacher-student meet held in every semester

2.5.2 **Whatarethemajorevaluationreformsoftheuniversitythatthe institutionhasadoptedandwhatarethereformsinitiatedby the institution on its own?**

1. All academic record is sent to University through on-line system.
2. Attendance and sessional marks are also sent to affiliating university through on-line system.
3. Institute has implemented ERP solution for effectively and efficiently managing the academic record of students.

2.5.3 **Howdoestheinstitutionensureeffectiveimplementationof the evaluationreforms of the university and those initiated by**

**theinstitution on its own?**

1. Training is given to faculty and staff for effective implementation of the evaluation reforms of the university.
2. Faculty and staff members are motivated to achieve this objective.
3. Affiliating university also conduct orientation courses and workshops on academic reforms from time to time.

2.5.4

22.225.4 Providedetailsontheformativeandsummativeassessment approachesadaptedtomeasurestudentachievement.Citea fewexampleswhichhavepositivelyimpactedthesystem.

**During class hours studets got assignments from teachers related to their class works.assignments are evaluated and students are give internal assessement (10 marks).**

**Two Tutorials of one hour per weeks are conducted for a group of 30 students. Tutorial sheets are provided to the students.**

**Three Mid Semester exams are conducted to evaluate the academic proformance of the students.According internal assessement are give(24 marks)**

**Students are encoursed to attend the classes regularly and internal assessment (6Marks) are given based on attendance**

**Student are encoursed to take part in extera carriculam activities and technical events(ISTE).like G.D,Mock ineterviews/tests,paper presentations ,projects etc.**

**Industrial visits are organized at department levet to give the industrial exposure to students and Indutrial Training of two months and six months is mendatory as per PTU carricula**

2.5.5 **Detailonthesignificantimprovementsmadeinensuringrigor andtransparencyintheinternalassessmentduringthelastfour yearsandweightagesassignedfortheoveralldevelopmentof students(weightage forbehavioralaspects,independent learning,communicationskillsetc**.

1. Implemented the system of declaring MST results within one week of its conduct and displaying it on the notice board.
2. Faculty members have started the process of showing the “Evaluated copies of answer sheets to the students.
3. The result of MST are also posted at institute website..
4. General fitness marks are awarded based on the performance of students in communication skills, NSS, NCC,Sports and extra curricular activities.

2.5.6 Whatare the graduateattributesspecifiedbythecollege/affiliatinguniversity?Howdoesthecollegeensurethe attainment of these by the students?

The college has adopted graduate attributes specified by NBA as listed below:

**NBA Graduate Attributes**

1. Engineering Knowledge: Apply knowledge of mathematics, science, engineering fundamentals and anengineering specialization to the solution of complex engineering problems.

2. Problem Analysis: Identify, formulate, research literature and analyze complex engineering problemsreaching substantiated conclusions using first principles of mathematics, natural sciences and engineeringsciences.

3. Design/ Development of Solutions: Design solutions for complex engineering problems and designsystem components or processes that meet specified needs with appropriate consideration for publichealth and safety, cultural, societal and environmental considerations.

4. Conduct investigations of complex problems using research-based knowledge and research methodsincluding design of experiments, analysis and interpretation of data and synthesis of information toprovide valid conclusions.

5. Modern Tool Usage: Create, select and apply appropriate techniques, resources and modern engineeringand IT tools including prediction and modeling to complex engineering activities with an understandingof the limitations.

6. The Engineer and Society: Apply reasoning informed by contextual knowledge to assess societal, health,safety, legal and cultural issues and the consequent responsibilities relevant to professional engineeringpractice.

7. Environment and Sustainability: Understand the impact of professional engineering solutions in societaland environmental contexts and demonstrate knowledge of and need for sustainable development.

8. Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms ofengineering practice.

9. Individual and Team Work: Function effectively as an individual, and as a member or leader in diverseteams and in multi disciplinary settings.

10. Communication: Communicate effectively on complex engineering activities with the engineering communityand with society at large, such as being able to comprehend and write effective reports anddesign documentation, make effective presentations and give and receive clear instructions.

11. Project Management and Finance: Demonstrate knowledge and understanding of engineering andmanagement principles and apply these to one’s own work, as a member and leader in a team, tomanage projects and in multidisciplinary environments.

12. Life-long Learning: Recognize the need for and have the preparation and ability to engage in independentand life- long learning in the broadest context of technological change.

2.5.7 **What are the mechanisms for redressal of grievances with reference to evaluation both at the college and University level?**

* 1. Redressal of graveness with reference to evaluation is done at the HOD level and Dean Academics.
  2. Dean Academics further redressal the grivences of the students at University level.
  3. Dean students welfare also address the grievances related to welfare of students.

**2.6. StudentperformanceandLearningOutcomes**

2.6.1 **Doesthecollegehaveclearlystatedlearningoutcomes?If‘yes’ givedetailsonhowthestudentsandstaffaremadeawareof these?**

Yes, each department has given details of program outcomes displayed on the notice board and college website.

2.6.2  **Enumerateonhowtheinstitutionmonitorsandcommunicates theprogressandperformanceofstudentsthroughtheduration ofthecourse/programme? Provideananalysisofthestudents results/achievements (Programme/coursewiseforlastfour years) andexplainthedifferencesifanyandpatternsof achievementacrosstheprogrammes/coursesoffered.**

1. Performance of the student during the entire course is evaluated internally by conducting MST, Assignments, tutorial sheets etc and semester exam at University level.
2. The results are communicated to students online by the University in their User Id’s.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Academic Performance | | | | |
| Average Percentage of B.Tech. CSE | Batch 2007-11 | Batch 2008-12 | Batch 2009-13 | Batch 2010-14 |
| 72.15% | 72.57% | 73.27% | 73.73% |
| Average Percentage of B.Tech. ECE | Batch 2007-11 | Batch 2008-12 | Batch 2009-13 | Batch 2010-14 |
| 70.80% | 72% | 72.40% | 73.52% |
| Average Percentage of B.Tech. ME | Batch 2007-11 | Batch 2008-12 | Batch 2009-13 | Batch 2010-14 |
| 68.5% | 69% | 71.40% | 72.52% |
| Average Percentage of B.Tech. CHE | Batch 2007-11 | Batch 2008-12 | Batch 2009-13 | Batch 2010-14 |
| 78.95% | 86.36% | 79.41% | 77.78% |
| Average Percentage of B.Tech. EE | Batch 2007-11 | Batch 2008-12 | Batch 2009-13 | Batch 2010-14 |
| 69.40% | 70.80% | 72.50% | 73.48% |

2.6.3 **Howaretheteaching,learningandassessmentstrategiesof theinstitutionstructuredtofacilitatetheachievementofthe intendedlearningoutcomes?**

Academic calander is planned in the beginning of semester to ensure the minimum 90 working days for study purpose.

Different academic support units of the institute are conducting curricular and co-curriculur activities to support the achievement of intended learning outcome.

Assessment of student in each course is done through by two level.

At level 1 student are evaluated internally through thee MST, Assignments/Quiz, Tutorial and attendance. It constitutes 40% weightage.

At level 2 students are evaluate externally by University.

2.6.4 **Whatarethemeasures/initiativestakenupbytheinstitution toenhance thesocialandeconomicrelevance(studentplacements,entrepreneurship,innovationandresearchaptitude?**

**developedamongstudentsetc.)ofthecoursesoffered?**

1. These is a seprate training & Placement comprising of TPO and carrier guidance cell
2. Each department has training & Placement incharge works who works in coordination with TPO.
3. Institute has III cell that conduct activity to the students to meet the industrial challenge in order to compete with outside world.
4. Financial assistance is provided to desering students for Research work.
   * 1. **Howdoestheinstitutioncollectandanalyzedataonstudent performanceandlearningoutcomesanduseitforplanningand overcomingbarriersoflearning?**
5. The final result declared by university ( which include internal and exrernal weaks) are analized and remedial classes are arranged for the courses in which students performance is poor.
6. Small projects are given to students for evaluating their technical skills and theoretical concepts for practical applications.
7. Further academic support activities are planned depending upon the performance of students.

2.6.6 **Howdoestheinstitutionmonitorandensuretheachievement oflearningoutcomes?**

1. Mid-term evaluations of students are made through quiz, seminars and assignments.
2. The learning outcomes are mapped with Cos and PEOs.

2.6.7 **Doestheinstitutionandindividualteachersuseassessment/ evalu ationoutcomesasanindicatorforevaluatingstudent performance,achievementoflearningobjectivesandplanning? If‘yes’providedetailsontheprocessandciteafewexamples.**

**AnyotherrelevantinformationregardingTeaching-Learning andEvaluationwhichthecollegewouldliketoinclude.**

Yes, result of MST are assessed for each subjects and after assessment remedial classes are conducted for weak students.

**CRITERIONIII:RESEARCH,CONSULTANCYANDEXTENSION**

**3.1 PromotionofResearch**

3.1.1 **Doestheinstitutionhaverecognizedresearchcenter/softhe affiliating University or any other agency/organization?**

**No**

3.1.2 **DoestheInstitutionhavearesearchcommitteetomonitorand addresstheissuesofresearch?Ifso,whatisitscomposition? Mentionafewrecommendationsmadebythecommitteefor implementationandtheirimpact.**

**Yes, There is one Dean, Postgraduate Studies and Research as Chairman and all HODs are members of the Research Committee. Faculty is encouraged time & again to submit projects to fetch aid for research. Further, seed grant for research from TEQIP project is given to faculty for research activities**.

3.1.3 **Whatarethemeasurestakenbytheinstitutiontofacilitatesmooth progressandimplementationofresearchschemes/projects?**

**§ autonomytotheprincipalinvestigator**

**Yes**

**§ timelyavailabilityorreleaseofresources**

**Yes**

**§ adequateinfrastructureandhumanresources**

Yes

§ **time-off,reducedteachingload,specialleaveetc.to teachers**

Yes, special leave/study leave is granted to faculty for doing PhD or Post doctorate.

§ **supportintermsof technologyandinformationneeds**

Yes, each faculty member is provided Laptop, Desktop and Tablets to HODs. E-journals are available in library to get latest information for research activities.

§ **facilitatetimelyauditingandsubmissionofutilization certificatetothefundingauthorities**

Yes

§ **anyother** : **Sponsorships are given to each faculty members once in a year for for presenting research papers in a National level Conference and once in a three years for presenting research papers in International Conference.**

3.1.4 **Whataretheeffortsmadebytheinstitutionindevelopingscientific temperandresearchcultureandaptitudeamongstudents?**

1. **Students are given projects & are encouraged to use some innovative ideas to develop new techniques.**
2. **Research grants are given to students for working on innovative ideas.**
3. **Central research facilities are available for all students to facilitate their research work.**

3.1.5 **Givedetailsofthefacultyinvolvementinactiveresearch (Guidingstudentresearch,leadingResearchProjects,engaged inindividual/collaborativeresearchactivity,etc.**

**List attached. Pl. see Annexure I**

3.1.6 **Give detailsof workshops/ training programmes/sensitizationprogrammesconducted/organizedbythe institutionwithfocusoncapacitybuildingintermsofresearch andimbibingresearchcultureamongthestaffandstudents.**

**List attached. Pl see Annexure Il**

3.1.7 **Providedetailsofprioritizedresearchareasandtheexpertise availablewiththeinstitution.**

Pl see Annexure III**.**

3.1.8 **Enumeratetheeffortsoftheinstitutioninattractingresearchersofeminencetovisitthecampusandinteractwithteachersand students?**

1. **Researchers of eminence from various Institutions are invited from Thapar Univ., IIT,Roorkee, IIT Ropar, USA and Netherlands.**
2. **In addition to TA and DA, they are given honourarium for delivering expert lecture.**

3.1.9  **WhatpercentageofthefacultyhasutilizedSabbaticalLeave forresearchactivities?Howhastheprovisioncontributedto improvethequalityofresearchandimbiberesearchcultureon thecampus?**

**Institute rules permits Sabbatical leave for every faculty members for carrying out research work.**

3.1.10 **Provide details of the initiatives taken up by the institution in creatingawareness/advocating/transferofrelativefindingsof**

**researchoftheinstitutionandelsewheretostudentsandcommunity(labtoland)**

1. **Lectures are delivered to faculty & students to create awareness of research and development activities.**
2. **A centralized newsletter is published for faculty and students carrying news of research publications of faculty and students.**
3. **Similarly, every department is also publishing departmental newsletter.**

**3.2 ResourceMobilizationforResearch**

3.2.1 **Whatpercentageofthetotalbudgetisearmarkedforresearch?**

**Givedetailsofmajorheadsofexpenditure,financialallocation andactualutilization.**

**Financial help in the form of seed grant max up to 1 lakh to each faculty member is allocated for research activities. More grants are given depending upon the type and quality of research proposals. Further, each faculty member can avail funds to attend one National Conference per year and one International conference per three years.**

.

3.2.2 **Istherea provision in theinstitutionto provide seed money to thefacultyforresearch?Ifso,specifytheamountdisbursedand thepercentageofthefacultythathasavailedthefacilityinthe lastfouryears?**

1. **Yes, Seed grant has been started from 2013 and two faculty members have availed seed grant till date, others are also in process to get the same.**
2. **Seed grant @ Rs 50,000 per faculty members is given to faculty having M.Tech qualifications**
3. **Seed grant of Rs. 3-5 Lacs per faculty members is given to faculty having Ph.D qualifications**

3.2.3 **Whatarethefinancialprovisionsmadeavailabletosupport studentresearchprojectsbystudents?**

1. **Students are given grant @ Rs. 25000 per project depending upon the recommendations of Research Committee of the Institute.**
2. **Students also get financial assistance from PTU Jalandhar for their research projects.**

3.2.4 **Howdoes the various departments/units/staff of the institute interactin undertakinginter-disciplinaryresearch? Cite examplesofsuccessfulendeavorsandchallengesfacedin organizinginterdisciplinaryresearch.**

**Interdisciplinary research is done successfully. Many studentsare doing research with faculty of other departments.**

3.2.**5 Howdoestheinstitutionensureoptimal useof various equipmentandresearchfacilitiesofthe**

**all the research facilities available are accessible to faculty & students of each department.**

1. **All the research facilities available are accessible to faculty & students of each department.**
2. **Additionally, most research equipments are kept centrally in Central Reseach Room.**

3.2.6 **Hastheinstitutionreceivedanyspecialgrantsorfinancesfrom theindustryorotherbeneficiaryagencyfordevelopingresearch facility?If‘yes’givedetails.**

Pl. see Annexure IV

3.2.7 **Enumeratethesupportprovidedtothefacultyinsecuringresearchfundsfromvariousfundingagencies,industryand otherorganizations.Providedetailsofongoingandcompleted projectsandgrantsreceivedduringthelastfouryears**.

Pl see Annexure IV**.**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Natureofthe**  **Project** | **Duration**  **Year**  **FromTo** | **Titleof the project** | **Nameof the funding agency** | **TotalGrant** | | **Total grant received tilldate** |
| **Sanctioned** | **Received** |
| **Minorprojects** |  |  |  |  |  |  |
| **Majorprojects** |  |  |  |  |  |  |
| **Interdisciplinary projects** |  |  |  |  |  |  |
| **Industry sponsored** |  |  |  |  |  |  |
| **Students’**  **researchprojects** |  |  |  |  |  |  |
| **Anyother**  **(specify)** |  |  |  |  |  |  |

Pl see Annexure IV

**3.3ResearchFacilities**

3.3.1  **Whataretheresearchfacilitiesavailabletothestudentsand researchscholars withinthecampus?**

Pl see Annexure V

3.3.2 **Whataretheinstitutionalstrategiesforplanning,upgradingand creatinginfrastructuralfacilitiestomeettheneedsofresearchersespeciallyinthenewandemergingareasofresearch?**

**Infra structural facilities are upgraded from time to time & as per the need of hour**. Recentally all labs are modernized and upgraded under TEQIP Project of MHRD vide which institute got Rs. 10 Crore.

3.3.3  **Hastheinstitutionreceivedanyspecialgrantsorfinancesfrom theindustryorotherbeneficiaryagencyfordevelopingresearch facilities??If‘yes’,whataretheinstruments/facilitiescreated duringthelastfouryears.**

1. **Institute has received grant of Rs. 10 crore for overall quality improvement from TEQIP.**
2. **Institute got Rs. 1.5 crore from AICTE for purchasing Lab equipments for promoting R&D activities**
3. **Institute also got Rs. 2.00 Crore for building Hostel for SC/ST students.**

3.3.4  **Whataretheresearchfacilitiesmadeavailabletothestudents andresearchscholarsoutsidethecampus/otherresearchlaboratories?**

**Students get help from other institutions like IIT, Roorke/IIT Ropar/IIT Delhi/ P.U. Chandigarh, SLIET, Longowal etc. for research facilities like getting NMR spectra/ SEM/ TEM/ XRD etc**.

3.3.5 **Provide details on the library/information resource center or any other facilities available specifically for there searchers?**

**E-journals are available in the library specially for researchers in various disciplines.**

3.2.6 **What are the collaborative research facilities developed/created by the research institutes in the college. Forex. Laboratories, library, instruments, computers, new technology etc.**

Pl.See annexure V

**3.4 Research Publications and Awards**

3.4.1 **Highlight the major research achievements of the staff and students in terms of**

∗ **Patents obtained and filed (process and product)**

one.

∗ **Original research contributing to product improvement**

**The B.Tech students of Electrical Engineering Departments have got first prize in “VYOM-2014” Tech-fest Project Competition organized at Punjab Engineering College Chandigarh. Students from 3o Engineering Colleges had participated in this Tech-Fest and the projects of our students got first position. These students also got 3rd position in another project during 17th Science Congress Expo-2014 organised by PTU Jalandhar.**

∗ **Research studies or surveys benefiting the community or improving the services**

1. **NSS students of the institute has conducted survey of Border areas on Education awareness among parents and students**.
2. **Students also conducted survey on water pollution.**

∗ **Research in puts contributing to new initiatives and social development**

**More and more faculty members are encouraged to do research on social areas which will help the people at large.**

3.4.2 **Does the Institute publish or partner in publication of research journal(s)? If ‘yes’ , indicate the composition of the editorial board, publication policies and whether such publication is listed in any international data base?**

**No**.

3.4.3 **Give details of publications by the faculty and students:**

**∗ Publication per faculty**

Pl see AnnexureVI

∗ **Number of papers published by faculty and students in peer review edjournals (national/international**)

Annexure VI

∗ **Number of publications listed in International Database (for Eg: Web of Science, Scopus, Humanities International Complete, Dare Database- International Social Sciences Directory, EBSCO host, etc.)**

∗ **Monographs**

**∗ ChapterinBooks**

**∗ BooksEdited**

**∗ Books with ISBN/ISSN numbers with details of publishers**

**∗ Citation Index**

**∗ SNIP**

**∗ SJR**

**∗ Impact factor**

**∗ h-index**

Pl see Annexure VII

3.4.4 **Provide details (ifany) of**

**∗ research awards received by the faculty**

**∗ recognition received by the faculty from reputed professional bodies and agencies, nationally and internationally**

**∗ incentives given to faculty for receiving state, national and international recognitions for research contributions**.

Pl see Annexue VIII

* 1. **Consultancy**

**3.5.1Give details of systems and strategies for establishing institute-industry interface?**

|  |
| --- |
| Effective interaction and communication between an academic Institution and Industry for the mutual benefit, is the need of the hour. This helps the Engineering students to learn in a healthy environment with vast industrial exposure and subsequently in placement of these young and talented graduating students (candidates) all around the globe.  “Industry Institute Interaction Cell” at Shaheed Bhagat Singh State Technical Campus, Ferozepur, is a student driven initiative to bridge the gap between industry and students. It seeks to provide quality solutions to the industry from time to time and develop projects that cater to their needs. Our focus is to assist students by providing them with industry exposure where they can practically apply the concepts they learn at SBSSTC, Ferozepur. The projects help students in gaining valuable insights about the functioning of companies and management problem solving. Students work on these projects and at the same time focus on their academics as well.  Lots of initiatives/activities has been practiced by **III-Cell**. The aim of this initiative is to help bridge the gap between the Industry requirements and the skill set provided by the institution and to build a bright and prospective career for the students.  **To promote Industry - Institute Interaction following schemes are being undertaken**   Industry-Institute Partnership/interaction Cell.   * Workshops, conferences and symposia with joint participation of the faculty and the industries. * Encouraging HR, Finance and Marketing professionals from industry to visit Institution to deliver lectures. * Arranging visits of staff members to various industry * Visits of faculty to industry for study and discussions or delivering lectures on subjects of mutual interest. * Visiting faculty/professors from industries. * Practical training of students in industries. |

**3.5.2 What is the stated policy of the institution to promote consultancy? How is the available expertise advocated and publicized.?**

The institute is promoting its consultancy by interacting with different Government, Semi-Government departments and private organisations through written correspondence. The detailed information of available expert faculty members as well as different labs alongwith available equipments/machinery and facilities is being sent to different organisations. The lists of projects executed by the Consultancy Cell is also intimated to different organisations through different medias.

**3.5.3 How does the institution encourage the staff to utilize their expertise and available facilities for consultancy services?**

The staff of the institution is utilized for their expertise by way of giving them incentives in the form of fixed percentage of the cost of the project. The remuneration to the staff is paid by the College as approved and given in the relevant clauses hereunder.

**3.5.3 (a)** If the consultancy work does not involve any facility from the College by way of Laboratory and Workshop etc. the total fees received should be distributed between the College and the staff members concerned in the ratio of 20:80 after deducting all their expenditure.

Further the distribution of this type of work which is carried out without the use of Equipments of College Laboratories is as under:

Total Money Received = T

5% to be paid to Director Office including 1% to the clerical assistance ship in Consultancy Cell = P

Expenditure on Consultancy Work = E

T-P-E = M

20% of M to go for College Share = C

Amount to be distributed by Principal Investigator = M-C = Active Share

5 % of the Active Share to Director, 2.5% of the Active Share to Dean Consultancy and 2.5% the Active Share to Head of Department.

Out of the remaining Active Share, 77% to Principal Investigator and 23% to Laboratory Staff if attached with the work. Out of 23% for laboratory Staff, 12% will go to Technician and 11% to attendant. If no Technician and Attendant are attached but some other individual such as draftsman is attached, he will get 20% and then the share of Principal Investigator will be 80%.

**3.5.3 (b)** In case of (i) routine testing work and (ii) development of equipment and machine or process for a particular industry where use of Laboratory equipment and facilities is involved, the fees after deducting all expenses should be distributed between the College and members of the staff including Laboratory staff in the ratio of 30:70.

Further the distribution of this type of work which is carried out with the use of Equipments of College Laboratories is as under:

Total Money Received = T

5% to be paid to Director Office including 1% to the clerical assistance ship in Consultancy Cell = P

Expenditure on Consultancy Work = E

T-P-E = M

30% of M to go for College Share = C

Amount to be distributed by Principal Investigator = M-C = Active Share

5 % of the Active Share to Director, 2.5% of the Active Share to Dean Consultancy and 2.5% the Active Share to Head of Department.

Out of the remaining Active Share, 77% to Principal Investigator and 23% to Laboratory Staff if attached with the work. Out of 23% for laboratory Staff, 12% will go to Technician and 11% to attendant.

**3.5.3 (c)** For consultation work involving only personal discussion with members of the staff, the fees may be charged at the rate of Rs. 1000/- per hour. The fee for visit to the site of work for such consultation will be on per day basis at mutually acceptable rate subject to a maximum of Rs. 2000/- per day for academic staff and Rs. 500/- per day for technical and other non-academic staff including the days spent on travel. These charges will be in addition to TA and DA payable to the staff members. The fees will be shared with the College as in clause **3.5.3** (a).

**3.5.3** (d) For regular consultation to a particular organisation on a retainer basis, where fees are paid on monthly rate, the fees received will be shared with the College as in the Clause **3.5.3** (a).

**3.5.3** (e)The remuneration to office staff will be 5% of the gross fees received, to be distributed to the office of the College and the Department Office in the ratio of 4:1.

The norms for distribution of consultancy fee to the general and Accounts Office staff may be decided by the Director in each case.

**3.5.3** (f)The total remuneration earned by a faculty and staff members of the college during the whole financial year on account of consultation and testing work, should not exceed the following limits of his yearly pay plus DA. Anything in excess of this is to be paid to the College in full:

(i) Teaching staff 150%

(ii) Laboratory and other Technical staff 75%

(iii) Office staff 50%

**3.5.4 List the broad areas and major consultancy services provided by the institution and the revenue generated during the last four years.**

Presently the institution is providing consultancy services in the areas of Geotechnical Engineering, Transportation Engineering, Structural Engineering, Environmental Engineering, Surveying and testing of different materials being used for Civil Engineering projects.

Detail of revenue generated is as under:

|  |  |  |
| --- | --- | --- |
| Sr. No. | Year | Amount |
| 1 | 2011-12 | Nil |
| 2 | 2012-13 | Nil |
| 3 | 2013-14 | Nil |
| 4 | 2014-15 | 84,997/- |

**3.5.5 What is the policy of the institution in sharing the income generated through consultancy (staff involved: Institution) and its use for institutional development?**

**3.5.5 (a)** If the consultancy work does not involve any facility from the College by way of Laboratory and Workshop etc. the total fees received should be distributed between the College and the staff members concerned in the ratio of 20:80 after deducting all their expenditure.

**3.5.5 (b)** In case of (i) routine testing work and (ii) development of equipment and machine or process for a particular industry where use of Laboratory equipment and facilities is involved, the fees after deducting all expenses should be distributed between the College and members of the staff including Laboratory staff in the ratio of 30:70.

**3.5.5 (c) Rules for Generation & Utilization of PDF and DDF**

**3.5.5 (c) (i) Generation of PDF & DDF**

The Professional Development Fund (PDF) of a faculty member or other academic staff member are generated by crediting a certain percentage of the following :

1. Institutional overhead charges received in a Sponsored Research/ Consultancy Project from the funding agency.
2. Institute share from a Consultancy Project and unspent balance, if any.
3. Institutional overhead charges received from HRD Programmes.
4. Any other source.

The College share received above areutilized to develop following three funds

1. Institute Development Fund (IDF): This fund will be under Director for the development of Consultancy works in the College.
2. Departmental Devlopment Fund (DDF): The objective of this fund is to provide additional grant to the Department for its developmental activities as well as for funding its other activities for which adequate funds are not available from other sources. This fund can also be used by the Department for holding seminars/Workshops/Conferences. This will need to get approval from Director after getting the recommendations of H.O.D..
3. Professional Development Fund (PDF): There will be a professional Development Fund for individual academic staff.

The proposed percentages to be credited to the PDF of the concerned faculty/academic staff are as per the following table. Another portion of the Institutional overhead charges/Institute share will be credited to the Departmental Development Fund (DDF) of the concerned Department/Academic Centre as shown in the table :

The Distribution of Institute Share in %age

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Type of Consultancy Work** | **Distribution of Institute Share** | | | |
| **IDF** | **DDF** | **PDF** | **Incentive to office Staff & Staff Welfare Fund** |
| Type (a) as detailed in item 3.5.5 (a) above | 50% | 15% | 25% | 10% |
| Type (b) as detailed in item 3.5.5 (b) above | 60% | 15% | 20% | 5% |

**3.5.5 (c) (ii) Rules for Utilization of DDF**

This fund can be utilized for the following purposes :

(a) Development of Departmental Infra structure facilities like equipment laboratories, class rooms, committee/conference rooms.

(b) Repair, maintenance and A.M.C. of equipment.

(c) Seed money for holding conferences/workshops and seminars etc.

The budget for utilizing DDF may be recommended by the Professional Committee of the Department and approved by the Director.

**CRITERIONIV:INFRASTRUCTUREANDLEARNINGRESOURCES**

**4.1 PhysicalFacilities**

4.1.1 **What is the policy of the Institutionfor creation and enhancement of infrastructure that facilitate effective teaching and learning?**

Institute has development fund **collected from students every semester** @ Rs. 14,600 per student. Institute also get additional grant from Govt. of Punjab which is used for the development of infrastructure .During the last three years Instute had created the following Insfrastructure

1. Administrative Block-D and Management Block-E at the cost of Rs.7.99 Cr. under NABARD scheme of Punjab Govt.
2. Girls hostel with 40 rooms,Gym, Mess Hall,Reading Room,Common Room at the cost of Rs. 5.15 Cr.
3. Institute has constructed Block-F having 24 lecture hall at the cost of Rs. 6.47 Cr which can accommodate 2000 students
4. New boys Hostel is under construction and likely to be completed by December,2014 at the cost of Rs. 4.0 Cr, out of which Rs. 2.0 Crore we will get from AICTE under SC/ST Grant Scheme.
5. Institute got Rs. 10.0 Cr under TEQIP project for the enhahcement of infrastructure.

4.1.2 **Detail the facilities available for**

1. **Curricularandco-curricular activities–classrooms, technology enabled learning spaces, seminar halls, tutorial spaces, laboratories, botanical garden, Animal house, specialized facilities and equipment for teaching, learning and research etc.**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Room Address** | **Room Type/Use** | **Department** | **Area** | **Units** |  |  |  |
| A101 | HC | EE | 20.4 | 1 |  | HC | Head Chamber |
| A102 | DO | EE | 26.6 | 1 |  | DO | Dept. Office |
| A103a | FR |  | 5.32 | 1 |  | FR | Faculty Room |
| A103b | FR |  | 5.32 | 1 |  | CR | Class Room |
| A103c | FR |  | 5.32 | 1 |  | TR | Tutorial Room |
| A103d | FR |  | 5.32 | 1 |  |  |  |
| A103e | FR |  | 5.32 | 1 |  |  |  |
| A104 | Lab | EE | 65.2 | 1 |  |  |  |
| A105 | Lab | EE | 65.2 | 1 |  |  |  |
| A106 | CR | CSE | 80.95 | 1 |  |  |  |
| A107 | CR | CSE | 94.45 | 1 |  |  |  |
| A108 | WR |  | 0 | 0 |  |  |  |
| A109 | WR |  | 0 | 0 |  |  |  |
| A110 | WR |  | 0 | 0 |  |  |  |
| A111a | FR |  | 6.33 | 1 |  |  |  |
| A111b | FR |  | 6.33 | 1 |  |  |  |
| A111c | FR |  | 6.33 | 1 |  |  |  |
| A112a | FR |  | 5.22 | 1 |  |  |  |
| A112b | FR |  | 5.22 | 1 |  |  |  |
| A112c | FR |  | 5.22 | 1 |  |  |  |
| A112d | FR |  | 5.22 | 1 |  |  |  |
| A113 | FR |  | 9.52 | 1 |  |  |  |
| A114 | FR |  | 9.52 | 1 |  |  |  |
| A115 | FR |  | 9.52 | 1 |  |  |  |
| A116a | Lab | EE | 62.9 | 1 |  |  |  |
| A116b | Lab | EE | 62.9 | 1 |  |  |  |
| A117a | Lab | EE | 62.9 | 1 |  |  |  |
| A117b | Lab | PEE | 62.9 | 1 |  |  |  |
| A118a | Lab | EE | 62.9 | 1 |  |  |  |
| A118b | Lab | EE | 62.9 | 1 |  |  |  |
| A119a | Lab | EE | 62.9 | 1 |  |  |  |
| A119b | Lab | PEE | 62.9 | 1 |  |  |  |
| A121 | FR |  | 9.77 | 1 |  |  |  |
| A122a | FR |  | 5.08 | 1 |  |  |  |
| A122b | FR |  | 5.08 | 1 |  |  |  |
| A122c | FR |  | 5.08 | 1 |  |  |  |
| A123a | FR |  | 5.08 | 1 |  |  |  |
| A123b | FR |  | 5.08 | 1 |  |  |  |
| A123c | FR |  | 5.08 | 1 |  |  |  |
| A124a | Lab | Common Lab | 66 | 1 |  |  |  |
| A124b | Lab | Common Lab | 66 | 1 |  |  |  |
| A124c | Lab | Common Lab | 66 | 1 |  |  |  |
| A127a | Lab | ECE | 77.5 | 1 |  |  |  |
| A127b | Lab | PG LabECE | 77.5 | 1 |  |  |  |
| A201 | HC | CSE | 18.91 | 1 |  |  |  |
| A202 | DO | CSE | 22.85 | 1 |  |  |  |
| A203 | Lab | CSE | 66.7 | 1 |  |  |  |
| A203a | Lab | PCE | 66.7 | 1 |  |  |  |
| A204a | FR |  | 5.4 | 1 |  |  |  |
| A204b | FR |  | 5.4 | 1 |  |  |  |
| A204c | FR |  | 5.4 | 1 |  |  |  |
| A204d | FR |  | 5.4 | 1 |  |  |  |
| A204e | FR |  | 5.4 | 1 |  |  |  |
| A205 | CR | CSE | 80.95 | 1 |  |  |  |
| A206 | CR | CSE | 80.95 | 1 |  |  |  |
| A207 | WR |  | 0 | 0 |  |  |  |
| A208 | WR |  | 0 | 0 |  |  |  |
| A209 | WR |  | 0 | 0 |  |  |  |
| A210a | FR |  | 7.13 | 1 |  |  |  |
| A210b | FR |  | 7.13 | 1 |  |  |  |
| A211a | FR |  | 7.13 | 1 |  |  |  |
| A211b | FR |  | 7.13 | 1 |  |  |  |
| A212a | FR |  | 4.81 | 1 |  |  |  |
| A212b | FR |  | 4.81 | 1 |  |  |  |
| A213a | FR |  | 4.81 | 1 |  |  |  |
| A213b | FR |  | 4.81 | 1 |  |  |  |
| A214a | FR |  | 4.81 | 1 |  |  |  |
| A214b | FR |  | 4.81 | 1 |  |  |  |
| A215a | Lab | CSE | 64.27 | 1 |  |  |  |
| A215b | Lab | PG LabCSE | 64.27 | 1 |  |  |  |
| A216a | Lab | CSE | 64.27 | 1 |  |  |  |
| A216b | Lab | CSE | 64.27 | 1 |  |  |  |
| A217a | Lab | CSE | 64.27 | 1 |  |  |  |
| A217b | Lab | PCE | 64.27 | 1 |  |  |  |
| A218a | Lab | CSE | 64.27 | 1 |  |  |  |
| A218b | Lab | CSE | 64.27 | 1 |  |  |  |
| A220 | FR |  | 9.62 | 1 |  |  |  |
| A221a | FR |  | 7.13 | 1 |  |  |  |
| A221b | FR |  | 7.13 | 1 |  |  |  |
| A222 to A231 | CC | CC | 365.13 | 0 |  |  |  |
| A301 to A309 | L | Library & RR | 544.34 | 0 |  |  |  |
| A310a | FR |  | 7.13 | 1 |  |  |  |
| A310b | FR |  | 7.13 | 1 |  |  |  |
| A311a | FR |  | 7.13 | 1 |  |  |  |
| A311b | FR |  | 7.13 | 1 |  |  |  |
| A312 | FR |  | 9.61 | 1 |  |  |  |
| A313 | FR |  | 9.61 | 1 |  |  |  |
| A314 | FR |  | 9.61 | 1 |  |  |  |
| A315a | Lab | ECE | 64.34 | 1 |  |  |  |
| A315b | Lab | ECE | 64.34 | 1 |  |  |  |
| A316a | Lab | ECE | 64.34 | 1 |  |  |  |
| A316b | Lab | PECE | 64.34 | 1 |  |  |  |
| A317a | Lab | ECE | 64.34 | 1 |  |  |  |
| A317b | Lab | ECE | 64.34 | 1 |  |  |  |
| A318a | Lab | ECE | 64.34 | 1 |  |  |  |
| A318b | Lab | PECE | 64.34 | 1 |  |  |  |
| A320 | FR |  | 9.61 | 1 |  |  |  |
| A321a | FR |  | 7.13 | 1 |  |  |  |
| A321b | FR |  | 7.13 | 1 |  |  |  |
| A322a | FR |  | 7.13 | 1 |  |  |  |
| A322b | FR |  | 7.13 | 1 |  |  |  |
| A323 | TR | CSE | 30.1 | 1 |  |  |  |
| A324a | Lab | ECE | 71.91 | 1 |  |  |  |
| A324b | Lab | ECE | 71.91 | 1 |  |  |  |
| A327a | Lab | ECE | 69.35 | 1 |  |  |  |
| A327b | Lab | ECE | 69.35 | 1 |  |  |  |
| A329 | HC | ECE | 20.48 | 1 |  |  |  |
| A330 | DO | ECE | 32 | 1 |  |  |  |
| B101a | FR |  | 6.14 | 1 |  |  |  |
| B101b | FR |  | 6.14 | 1 |  |  |  |
| B101c | FR |  | 6.14 | 1 |  |  |  |
| B102a | FR |  | 5 | 1 |  |  |  |
| B102b | FR |  | 5 | 1 |  |  |  |
| B102c | FR |  | 5 | 1 |  |  |  |
| B102d | FR |  | 5 | 1 |  |  |  |
| B102e | FR |  | 5 | 1 |  |  |  |
| B102f | FR |  | 5 | 1 |  |  |  |
| B103 | HC | ME | 19.2 | 1 |  |  |  |
| B104 | DO | ME | 29.56 | 1 |  |  |  |
| B105a | FR |  | 6.4 | 1 |  |  |  |
| B105b | FR |  | 6.4 | 1 |  |  |  |
| B105c | FR |  | 6.4 | 1 |  |  |  |
| B106a | FR |  | 6.5 | 1 |  |  |  |
| B106b | FR |  | 6.5 | 1 |  |  |  |
| B106c | FR |  | 6.5 | 1 |  |  |  |
| B107 | Lab | ME | 106.35 | 1 |  |  |  |
| B108a | Lab | ME | 69.9 | 1 |  |  |  |
| B108b | Lab | PME | 69.9 | 1 |  |  |  |
| B111 | PC | TPO | 33.62 | 0 |  |  |  |
| B112a | Lab | ME | 68.12 | 1 |  |  |  |
| B112b | Lab | PME | 68.12 | 1 |  |  |  |
| B115a | Lab | ME | 68.12 | 1 |  |  |  |
| B115b | Lab | PME | 68.12 | 1 |  |  |  |
| B118a | Lab | ME | 68.12 | 1 |  |  |  |
| B118b | Lab | PME | 68.12 | 1 |  |  |  |
| B121a | Lab | CE | 69.63 | 1 |  |  |  |
| B121b | Lab | CE | 69.63 | 1 |  |  |  |
| B123 | WR |  | 0 | 0 |  |  |  |
| B124 | CR | ME | 79.8 | 1 |  |  |  |
| B126a | FR |  | 5.3 | 1 |  |  |  |
| B126b | FR |  | 5.3 | 1 |  |  |  |
| B126c | FR |  | 5.3 | 1 |  |  |  |
| B126d | FR |  | 5.3 | 1 |  |  |  |
| B126e | FR |  | 5.3 | 1 |  |  |  |
| B127a | FR |  | 5.03 | 1 |  |  |  |
| B127b | FR |  | 5.03 | 1 |  |  |  |
| B127c | FR |  | 5.03 | 1 |  |  |  |
| B127d | FR |  | 5.03 | 1 |  |  |  |
| B127e | FR |  | 5.03 | 1 |  |  |  |
| B128 | CR | ME | 79.29 | 1 |  |  |  |
| B129 | WR |  | 0 | 0 |  |  |  |
| B130 | WR |  | 0 | 0 |  |  |  |
| B131 | WR |  | 0 | 0 |  |  |  |
| B132 | SH | Common | 57.75 | 1 |  |  |  |
| B201 | DO | CE | 18.42 | 1 |  |  |  |
| B202 | HC | CE | 19.2 | 1 |  |  |  |
| B203 | TR | CSE | 39.1 | 1 |  |  |  |
| B204 | TR | ME | 39.1 | 1 |  |  |  |
| B205a | FR |  | 6.14 | 1 |  |  |  |
| B205b | FR |  | 6.14 | 1 |  |  |  |
| B205c | FR |  | 6.14 | 1 |  |  |  |
| B206 | SH | CE | 106.35 | 1 |  |  |  |
| B207a | Lab | CE | 69.9 | 1 |  |  |  |
| B207b | Lab | CE | 69.9 | 1 |  |  |  |
| B210 | TR | ME | 33.62 | 1 |  |  |  |
| B211a | Lab | CE | 67.08 | 1 |  |  |  |
| B211b | Lab | CE | 67.08 | 1 |  |  |  |
| B214a | Lab | ME | 68.06 | 1 |  |  |  |
| B214b | Lab | ME | 68.06 | 1 |  |  |  |
| B217a | Lab | ME | 67.08 | 1 |  |  |  |
| B217b | Lab | ME | 67.08 | 1 |  |  |  |
| B220a | Lab | ME | 68.14 | 1 |  |  |  |
| B220b | Lab | PME | 68.14 | 1 |  |  |  |
| B222 | WR |  | 0 | 0 |  |  |  |
| B223 | CR | CSE | 79.87 | 1 |  |  |  |
| B225a | FR |  | 5.21 | 1 |  |  |  |
| B225b | FR |  | 5.21 | 1 |  |  |  |
| B225c | FR |  | 5.21 | 1 |  |  |  |
| B225d | FR |  | 5.21 | 1 |  |  |  |
| B225e | FR |  | 5.21 | 1 |  |  |  |
| B226a | FR |  | 5.04 | 1 |  |  |  |
| B226b | FR |  | 5.04 | 1 |  |  |  |
| B226c | FR |  | 5.04 | 1 |  |  |  |
| B226d | FR |  | 5.04 | 1 |  |  |  |
| B226e | FR |  | 5.04 | 1 |  |  |  |
| B227 | CR | ME | 79.29 | 1 |  |  |  |
| B228 | WR |  | 0 | 0 |  |  |  |
| B229 | WR |  | 0 | 0 |  |  |  |
| B230 | WR |  | 0 | 0 |  |  |  |
| B231a | FR |  | 5.41 | 1 |  |  |  |
| B231b | FR |  | 5.41 | 1 |  |  |  |
| B232a | FR |  | 5.64 | 1 |  |  |  |
| B232b | FR |  | 5.64 | 1 |  |  |  |
| B233 | FR |  | 8.41 | 1 |  |  |  |
| B234 | FR |  | 8.5 | 1 |  |  |  |
| B235 | FR |  | 8.5 | 1 |  |  |  |
| B236 | FR |  | 8.5 | 1 |  |  |  |
| B237 | FR |  | 8.5 | 1 |  |  |  |
| B238 | FR |  | 8.69 | 1 |  |  |  |
| B301 | SH | ME | 167.7 | 1 |  |  |  |
| B302a | FR |  | 5.03 | 1 |  |  |  |
| B302b | FR |  | 5.03 | 1 |  |  |  |
| B302c | FR |  | 5.03 | 1 |  |  |  |
| B302d | FR |  | 5.03 | 1 |  |  |  |
| B302e | FR |  | 5.03 | 1 |  |  |  |
| B303 | TR | MCA | 41.75 | 1 |  |  |  |
| B304 | TR | ECE | 39.46 | 1 |  |  |  |
| B305 | EC | Exam Center | 33.62 | 1 |  |  |  |
| B306 | DH | Engg Wing | 133.93 | 1 |  |  |  |
| B309 | DH | Poly Wing | 138.18 | 1 |  |  |  |
| B312a | CR | ME | 67 | 1 |  |  |  |
| B312b | CR | ME | 67 | 1 |  |  |  |
| B315a | CR | ME | 69.4 | 1 |  |  |  |
| B315b | CR | ME | 69.4 | 1 |  |  |  |
| B317 | WR |  | 0 | 0 |  |  |  |
| B318 | TR | CHE | 39.87 | 1 |  |  |  |
| B319 | TR | PME | 40 | 1 |  |  |  |
| B321 | TR | ECE | 25.17 | 1 |  |  |  |
| B322 | SH | ECE | 167.7 | 1 |  |  |  |
| C101a | FR |  | 5.76 | 1 |  |  |  |
| C101b | FR |  | 5.76 | 1 |  |  |  |
| C102a | FR |  | 5.76 | 1 |  |  |  |
| C102b | FR |  | 5.76 | 1 |  |  |  |
| C103a | FR |  | 5.76 | 1 |  |  |  |
| C103b | FR |  | 5.76 | 1 |  |  |  |
| C104a | FR |  | 5.76 | 1 |  |  |  |
| C104b | FR |  | 5.76 | 1 |  |  |  |
| C105 | WR |  | 0 | 0 |  |  |  |
| C106a | FR |  | 5.11 | 1 |  |  |  |
| C106b | FR |  | 5.11 | 1 |  |  |  |
| C106c | FR |  | 5.11 | 1 |  |  |  |
| C106d | FR |  | 5.11 | 1 |  |  |  |
| C107a | FR |  | 5.11 | 1 |  |  |  |
| C107b | FR |  | 5.11 | 1 |  |  |  |
| C107c | FR |  | 5.11 | 1 |  |  |  |
| C107d | FR |  | 5.11 | 1 |  |  |  |
| C108 | DO | CHE | 20.82 | 1 |  |  |  |
| C109 | HC | CHE | 20.71 | 1 |  |  |  |
| C110a | FR |  | 5 | 1 |  |  |  |
| C110b | FR |  | 5 | 1 |  |  |  |
| C110c | FR |  | 5 | 1 |  |  |  |
| C110d | FR |  | 5 | 1 |  |  |  |
| C111 | CR | ECE | 79.87 | 1 |  |  |  |
| C112 | CR | ECE | 92.41 | 1 |  |  |  |
| C113 | TR | PCE | 40 | 1 |  |  |  |
| C114 | TR | PEE | 39.68 | 1 |  |  |  |
| C115 | TR | MBA | 39.68 | 1 |  |  |  |
| C116 | WR |  | 0 | 0 |  |  |  |
| C117 | WR |  | 0 | 0 |  |  |  |
| C118 | Lab | ChE | 97.39 | 1 |  |  |  |
| C119 | Lab | ChE | 97.39 | 1 |  |  |  |
| C120 | Lab | ChE | 97.39 | 1 |  |  |  |
| C121 | Lab | ChE | 97.39 | 1 |  |  |  |
| C122a | Lab | ChE | 68.52 | 1 |  |  |  |
| C122b | Lab | ChE | 68.52 | 1 |  |  |  |
| C125a | Lab | ChE | 67.07 | 1 |  |  |  |
| C125b | Lab | ChE | 67.07 | 1 |  |  |  |
| C128a | Lab | Common Lab | 66.25 | 1 |  |  |  |
| C128b | Lab | ChE | 66.25 | 1 |  |  |  |
| C131a | Lab | ChE | 68.95 | 1 |  |  |  |
| C131b | Lab | CHE | 68.95 | 1 |  |  |  |
| C201a | FR |  | 5.76 | 1 |  |  |  |
| C201b | FR |  | 5.76 | 1 |  |  |  |
| C202a | FR |  | 5.76 | 1 |  |  |  |
| C202b | FR |  | 5.76 | 1 |  |  |  |
| C203a | FR |  | 5.76 | 1 |  |  |  |
| C203b | FR |  | 5.76 | 1 |  |  |  |
| C204a | FR |  | 5.76 | 1 |  |  |  |
| C204b | FR |  | 5.76 | 1 |  |  |  |
| C205 | WR |  | 0 | 0 |  |  |  |
| C206a | FR |  | 5.11 | 1 |  |  |  |
| C206b | FR |  | 5.11 | 1 |  |  |  |
| C206c | FR |  | 5.11 | 1 |  |  |  |
| C206d | FR |  | 5.11 | 1 |  |  |  |
| C207a | FR |  | 5.11 | 1 |  |  |  |
| C207b | FR |  | 5.11 | 1 |  |  |  |
| C207c | FR |  | 5.11 | 1 |  |  |  |
| C207d | FR |  | 5.11 | 1 |  |  |  |
| C208a | FR |  | 5.2 | 1 |  |  |  |
| C208b | FR |  | 5.2 | 1 |  |  |  |
| C208c | FR |  | 5.2 | 1 |  |  |  |
| C208d | FR |  | 5.2 | 1 |  |  |  |
| C209 | DO | DASH | 29.71 | 1 |  |  |  |
| C210 | HC | DASH | 39.04 | 1 |  |  |  |
| C211a | FR |  | 5.49 | 1 |  |  |  |
| C211b | FR |  | 5.49 | 1 |  |  |  |
| C211c | FR |  | 5.49 | 1 |  |  |  |
| C212 | CR | ECE | 79.87 | 1 |  |  |  |
| C213 | CR | ECE | 92.41 | 1 |  |  |  |
| C214 | CR | ChE | 50.22 | 1 |  |  |  |
| C215 | TR | CR-PG-CSE | 39.68 | 1 |  |  |  |
| C216 | TR | CE | 39.68 | 1 |  |  |  |
| C217 | WR |  | 0 | 0 |  |  |  |
| C218 | WR |  | 0 | 0 |  |  |  |
| C219 | R-Lab | R-Lab | 92.14 | 1 |  |  |  |
| C220a | FR |  | 5.58 | 1 |  |  |  |
| C220b | FR |  | 5.58 | 1 |  |  |  |
| C220c | FR |  | 5.58 | 1 |  |  |  |
| C220d | FR |  | 5.58 | 1 |  |  |  |
| C221 | Lab | ChE | 92.14 | 1 |  |  |  |
| C222a | Lab | Common Lab | 68 | 1 |  |  |  |
| C222b | Lab | Common Lab | 68 | 1 |  |  |  |
| C225a | Lab | CSE | 74.34 | 1 |  |  |  |
| C225b | R-Lab | R-Lab | 74.35 | 1 |  |  |  |
| C228a | Lab | Common Lab | 74.41 | 1 |  |  |  |
| C228b | Lab | Common Lab | 74.41 | 1 |  |  |  |
| C231a | Lab | Common Lab | 68.45 | 1 |  |  |  |
| C231b | Lab | Common Lab | 68.45 | 1 |  |  |  |
| C301a | FR |  | 5.76 | 1 |  |  |  |
| C301b | FR |  | 5.76 | 1 |  |  |  |
| C302a | FR |  | 5.76 | 1 |  |  |  |
| C302b | FR |  | 5.76 | 1 |  |  |  |
| C303a | FR |  | 5.76 | 1 |  |  |  |
| C303b | FR |  | 5.76 | 1 |  |  |  |
| C304a | FR |  | 5.76 | 1 |  |  |  |
| C304b | FR |  | 5.76 | 1 |  |  |  |
| C305 | WR |  | 0 | 0 |  |  |  |
| C306a | FR |  | 5.11 | 1 |  |  |  |
| C306b | FR |  | 5.11 | 1 |  |  |  |
| C306c | FR |  | 5.11 | 1 |  |  |  |
| C306d | FR |  | 5.11 | 1 |  |  |  |
| C307a | FR |  | 5.11 | 1 |  |  |  |
| C307b | FR |  | 5.11 | 1 |  |  |  |
| C307c | FR |  | 5.11 | 1 |  |  |  |
| C307d | FR |  | 5.11 | 1 |  |  |  |
| C308a | FR |  | 5.2 | 1 |  |  |  |
| C308b | FR |  | 5.2 | 1 |  |  |  |
| C308c | FR |  | 5.2 | 1 |  |  |  |
| C308d | FR |  | 5.2 | 1 |  |  |  |
| C309 | TR | CR-PG-CSE | 39.71 | 1 |  |  |  |
| C310a | FR |  | 5.49 | 1 |  |  |  |
| C310b | FR |  | 5.49 | 1 |  |  |  |
| C310c | FR |  | 5.49 | 1 |  |  |  |
| C310d | FR |  | 5.49 | 1 |  |  |  |
| C310e | FR |  | 5.49 | 1 |  |  |  |
| C310f | FR |  | 5.49 | 1 |  |  |  |
| C311a | FR |  | 5.49 | 1 |  |  |  |
| C311b | FR |  | 5.49 | 1 |  |  |  |
| C311c | FR |  | 5.49 | 1 |  |  |  |
| C312 | SH | ChE | 177 | 1 |  |  |  |
| C313 | CR | ChE | 71.3 | 1 |  |  |  |
| C313a | TR | CR-PG-ECE | 41.71 | 1 |  |  |  |
| C313b | TR | CR-PG-ECE | 41.7 | 1 |  |  |  |
| C314 | WR |  | 0 | 0 |  |  |  |
| C315 | WR |  | 0 | 0 |  |  |  |
| C316 | SH | MBA | 132.56 | 1 |  |  |  |
| C319a | CR | CE | 74.35 | 1 |  |  |  |
| C319b | CR | CE | 74.35 | 1 |  |  |  |
| C322a | CR | EE | 74.21 | 1 |  |  |  |
| C322b | CR | EE | 74.41 | 1 |  |  |  |
| C325 | SH | MCA | 134.05 | 1 |  |  |  |
| D101 | WR |  | 19.52 | 0 |  |  |  |
| D102 | WR |  | 19.52 | 0 |  |  |  |
| D103 | WR |  | 4.14 | 0 |  |  |  |
| D104 | PO | Director Office | 56 | 1 |  |  |  |
| D105 | O | Offices | 22 | 1 |  |  |  |
| D106 | O | Offices | 11.55 | 0 |  |  |  |
| D107 | O | Offices | 11.55 | 0 |  |  |  |
| D108 | O | Offices | 11.55 | 0 |  |  |  |
| D109 | BR | Board Room | 56.36 | 0 |  |  |  |
| D110 | SH | Poly Wing | 133.14 | 1 |  |  |  |
| D114a | Lab | EE | 62.47 | 1 |  |  |  |
| D114b | Lab | PEE | 62.47 | 1 |  |  |  |
| D115a | Lab | EE | 62.47 | 1 |  |  |  |
| D115b | Lab | PEE | 62.47 | 1 |  |  |  |
| D118 | WR |  | 26.41 | 0 |  |  |  |
| D119a | O | Offices | 280.65 | 0 |  |  |  |
| D119b | CS | Central Stores | 30 | 0 |  |  |  |
| D123 | PO | Principal Office | 31.36 | 0 |  |  |  |
| D124 (1/2) | DO | PECE | 17.42 | 1 |  |  |  |
| D125 (2/2) | DO | PCS | 17.42 | 1 |  |  |  |
| D127 to D129 | O | Offices | 41.8 | 0 |  |  |  |
| D201 | WR |  | 16.6 | 0 |  |  |  |
| D202 | WR |  | 16.6 | 0 |  |  |  |
| D203 | WR |  | 4.2 | 0 |  |  |  |
| D204 | CR | PME | 82.16 | 1 |  |  |  |
| D205 | CR | PME | 83.55 | 1 |  |  |  |
| D206 | CR | PME | 83.55 | 1 |  |  |  |
| D207a | HC | PME | 13.59 | 1 |  |  |  |
| D207b | HC | PEE | 13.59 | 1 |  |  |  |
| D208a | DO | PME | 13.9 | 1 |  |  |  |
| D208b | DO | PEE | 13.9 | 1 |  |  |  |
| D209a | Lab | PCE | 62.5 | 1 |  |  |  |
| D209b | Lab | PCE | 62.5 | 1 |  |  |  |
| D209c | Lab | PECE | 62.5 | 1 |  |  |  |
| D209d | Lab | PECE | 62.5 | 1 |  |  |  |
| D212 | WR |  | 27.3 | 0 |  |  |  |
| D213 | WR |  | 25.8 | 0 |  |  |  |
| D214 | CR | PECE | 83.31 | 1 |  |  |  |
| D215 | CR | PECE | 87 | 1 |  |  |  |
| D216 | CR | PECE | 83.55 | 1 |  |  |  |
| D217a | HC | PECE | 13.2 | 1 |  |  |  |
| D217b | HC | PCE | 13.2 | 1 |  |  |  |
| D218 | CR | PECE | 83.55 | 1 |  |  |  |
| D219 | CR | MCA | 88.67 | 1 |  |  |  |
| E101/102 | DO | MBA-MCA | 21.1 | 2 |  |  |  |
| E103 | HC | MBA-MCA | 27.41 | 2 |  |  |  |
| E104a | FR |  | 5.16 | 1 |  |  |  |
| E104b | FR |  | 5.16 | 1 |  |  |  |
| E104c | FR |  | 5.16 | 1 |  |  |  |
| E104d | FR |  | 5.16 | 1 |  |  |  |
| E104e | FR |  | 5.16 | 1 |  |  |  |
| E105 | CR | MCA | 55.5 | 1 |  |  |  |
| E106 | CR | MCA | 56.2 | 1 |  |  |  |
| E107 | WR |  | 25.8 | 0 |  |  |  |
| E108 | WR |  | 26.41 | 0 |  |  |  |
| E109a | Lab | MCA | 69.9 | 1 |  |  |  |
| E109b | Lab | MCA | 69.9 | 1 |  |  |  |
| E112 | CR | MCA | 55.51 | 1 |  |  |  |
| E113 | WR |  | 22.72 | 0 |  |  |  |
| E114 | CR | MBA | 82.39 | 1 |  |  |  |
| E115 | WR |  | 18.38 | 0 |  |  |  |
| E116 | WR |  | 5.26 | 0 |  |  |  |
| E117 | L | Reading Room-MBA | 50 | 0 |  |  |  |
| E201a | CR | EE | 55.44 | 1 |  |  |  |
| E201b | CR | EE | 55.44 | 1 |  |  |  |
| E202 | CR | MBA | 69.3 | 1 |  |  |  |
| E203 | CR | PEE | 69.3 | 1 |  |  |  |
| E204 | WR |  | 25.79 | 0 |  |  |  |
| E205 | WR |  | 26.41 | 0 |  |  |  |
| E206a | Lab | MCA | 69.77 | 1 |  |  |  |
| E206b | Lab | MCA | 69.77 | 1 |  |  |  |
| E209 | WR |  | 22.71 | 0 |  |  |  |
| E210 | CR | PEE | 69.3 | 1 |  |  |  |
| E211 | CR | PEE | 68.68 | 1 |  |  |  |
| E212 | WR |  | 18.28 | 0 |  |  |  |
| E213 | WR |  | 4.87 | 0 |  |  |  |
| E214 | L | Reading Room-MCA | 50 | 0 |  |  |  |
| F101 | CR | CSE | 89.25 | 1 |  |  |  |
| F102 | CR | CSE | 89.25 | 1 |  |  |  |
| F103 | SH | EE | 116.02 | 1 |  |  |  |
| F104 | CR | CSE | 89.25 | 1 |  |  |  |
| F105 | CR | ECE | 66.92 | 1 |  |  |  |
| F106 | CR | ECE | 66.92 | 1 |  |  |  |
| F107 | CR | ECE | 66.92 | 1 |  |  |  |
| F108 | CR | ChE | 66.92 | 1 |  |  |  |
| F109 | TR | PECE | 36.19 | 1 |  |  |  |
| F110 | WR |  |  |  |  |  |  |
| F111 | WR |  |  |  |  |  |  |
| F201 | CR | ECE | 89.25 | 1 |  |  |  |
| F202 | CR | PCE | 89.25 | 1 |  |  |  |
| F203 | SH | CSE | 116.02 | 1 |  |  |  |
| F204 | CR | PECE | 89.25 | 1 |  |  |  |
| F205 | CR | PECE | 66.92 | 1 |  |  |  |
| F206 | CR | PME | 66.92 | 1 |  |  |  |
| F207 | CR | PME | 66.92 | 1 |  |  |  |
| F208 | CR | PME | 66.92 | 1 |  |  |  |
| F209 | TR | PECE | 36.19 | 1 |  |  |  |
| F210 | WR |  |  |  |  |  |  |
| F211 | WR |  |  |  |  |  |  |
| F301 | CR | ME | 89.25 | 1 |  |  |  |
| F302 | CR | CHE | 89.25 | 1 |  |  |  |
| F303 | SH | Common | 116.02 | 1 |  |  |  |
| F304 | CR | MCA | 89.25 | 1 |  |  |  |
| F305 | CR | MBA | 66.92 | 1 |  |  |  |
| F306 | CR | EE | 66.92 | 1 |  |  |  |
| F307 | CR | CSE | 66.92 | 1 |  |  |  |
| F308 | CR | CE | 66.92 | 1 |  |  |  |
| F309 | TR | PME | 36.19 | 1 |  |  |  |
| F310 | WR |  |  |  |  |  |  |
| F311 | WR |  |  |  |  |  |  |
| W101a | FR |  | 5.77 | 1 |  |  |  |
| W101b | FR |  | 5.77 | 1 |  |  |  |
| W102a | FR |  | 6.02 | 1 |  |  |  |
| W102b | FR |  | 6.02 | 1 |  |  |  |
| W103 | WS | WS | 97.65 | 0 |  |  |  |
| W104 | TR | PME | 47.54 | 1 |  |  |  |
| W105 | WS | WS | 102.67 | 0 |  |  |  |
| W106a | FR |  | 6.47 | 1 |  |  |  |
| W106b | FR |  | 6.47 | 1 |  |  |  |
| W107a | FR |  | 6.47 | 1 |  |  |  |
| W107b | FR |  | 6.47 | 1 |  |  |  |
| W108 | Lab | ME | 101.68 | 1 |  |  |  |
| W109 | WS | WS | 100 | 0 |  |  |  |
| W109a | Lab | PME | 96 | 1 |  |  |  |
| W110a | Lab | ME | 72.63 | 1 |  |  |  |
| W110b | Lab | PME | 72.63 | 1 |  |  |  |
| W111/116 | Lab | EE | 95 | 1 |  |  |  |
| W112 | Lab | Common Lab | 101.68 | 1 |  |  |  |
| W113a | FR |  | 6.47 | 1 |  |  |  |
| W113b | FR |  | 6.47 | 1 |  |  |  |
| W114a | FR |  | 6.47 | 1 |  |  |  |
| W114b | FR |  | 6.47 | 1 |  |  |  |
| W115 | WS | WS | 102.67 | 0 |  |  |  |
| W117 | Lab | ME | 97.65 | 1 |  |  |  |
| W118 | WR |  | 0 | 0 |  |  |  |
| W119 | WR |  | 0 | 0 |  |  |  |
| G101 | CR | PCE | 55.3 | 1 |  |  |  |
| G102 | CR | PCE | 59.2 | 1 |  |  |  |
| G103 to G112 | SC | Sports Club | 155.6 | 0 |  |  |  |
| HC-1 | HS | Health Center | 88 | 0 |  |  |  |
| HC-2 | SC | Sports Club | 62 | 0 |  |  |  |
| HC-3 | P | Pantry for Staff | 12 | 1 |  |  |  |
| MC101 | Cf | Cafetaria | 180 | 1 |  |  |  |
| MC102 |  | Grocery | 18 | 1 |  |  |  |
| MC103 | SS | Stationary Store | 18 | 1 |  |  |  |
| MC104 | SS | Reprography | 18 | 1 |  |  |  |
| MC105 |  | Confectionary | 18 | 1 |  |  |  |
| MC106 |  | Barber | 18 | 1 |  |  |  |
| MC107 |  | Dhobi | 18 | 1 |  |  |  |
| MC108 |  | Fruits Shop | 18 | 1 |  |  |  |
| MC109 |  | Post Office | | 1 |  |  |  |
| MC110 & MC 111 | | Bank Branch | | 0 |  |  |  |
| PH101 (SDO) | O | Offices | 28.25 | 1 |  |  |  |
| PH102 (JE) | HK | House Keeping | 15.3 | 1 |  |  |  |
| PH103 | S | Security | 14.3 | 0 |  |  |  |
| PH104 (Generator) | M | Maintenance | 33.18 | 0 |  |  |  |
| PH105 (Ladder) | M | Maintenance | 30.4 | 0 |  |  |  |
| PH106 (Power Room) | M | Maintenance | 107 | 0 |  |  |  |
| SH-CR-B | CR-B | Common Room | 55.75 | 0 |  |  |  |
| GH-CR-B | CR-B | Common Room | 55.8 | 0 |  |  |  |
| BH-CR-B | CR-B | Common Room | 42.48 | 0 |  |  |  |
| SH-CR-G | CR-G | Common Room | 104.59 | 0 |  |  |  |
| SH-CC | CC | CC | 74.42 | 0 |  |  |  |
| GH-CC | CC | CC | 74.4 | 0 |  |  |  |
| BH-CC | CC | CC | 62.94 | 0 |  |  |  |
| A-3 | GH | Guest House | 167 | 0 |  |  |  |
| PQ | PQ | Principal Quarter | 198 | 0 |  |  |  |
| SH | H-B | Boys Hostel | 7830.7 | 0 |  |  |  |
| GH | H-B | Boys Hostel | 7830.7 | 0 |  |  |  |
| BH | H-B | Boys Hostel | 5468.6 | 0 |  |  |  |
| SH-1 | H-G | Girls Hostel | 6246.2 | 0 |  |  |  |
| SH-2 | H-G | Girls Hostel | 882.5 | 0 |  |  |  |
| New Girls hostel | H-G | Girls Hostel | 3977.3 |  |  |  |  |
| Toilets | Toilets | Toilets | 762.52 | 0 |  |  |  |
| Corridors | Corridors | Corridors | 3500 | 0 |  |  |  |

b) **Extra–curricular activities–sports, out door and indoor games, gymnasium, auditorium, NSS, NCC, cultural activities, Public speaking, communication skills development, yoga, health and hygien eetc.**

1. **National Cadet Corps (NCC)**
2. The institute has an NCC unit run by 13 Pb Battalion. There are two platoons with troop members 6/13. The total quota of the platoons is 106 consisting of 2 boys platoon. Institute has following commissioned officerANO Lt. (Dr.) KulbhushanAgnihotri, Associate Professor, DASH
3. NCC unit is imparting training to NCC Cadet through army personels and ANO of the college for two days in a week during working days. NCC cadets are given refreshment after Parade for 30 parade and 10 parade are without refreshment.
4. No. of cadets are sent for various camps every year to different part of country to get various training like different weapons training and drill for their personality development and motivation for joining army.

Some of the training camps attended by our cadets are as below

* 32 cadets attended Annual Training Camp held at NCC Academy Malout, Punjab in the year 2012-13
* 35 cadets attended Annual Training Camp held at Mahianwala, ZiraFerozepur in the Year 2011-12
* 08 cadets attended Annual Training Camp held at 13 Punjab Battallion, Ferozepur in the year 2011-12.
* 08 cadets attended Annual Training Camp held at 13 Punjab Battallion, Ferozepur in the year 2011-10.
* 40 cadets took part in firing camp held at at 13 Punjab Battallion, Ferozepur in year, 2011-10.

1. To enhance the confidence level and to fill the students with the patriotic feelings, the Technical Campus has applied for new platoons for poly wing and management wing (3 for boys and 2 for girls). The SBSCET is drawing its attention by providing such challenging activities in its campus to the technical students to be a important part of Indian defensive wing.
2. **The aims and objectives of the NCC programme are**

* Development of leadership, character, comradeship, spirit of sportsmanship and ideal of service
* Creation of a force of disciplined and trained persons who could, in a national emergency, be of assistance to the country
* Provision of training for students with a view to developing in them officer-like qualities, thus also enabling them to obtain commissions in the armed forces.

1. **Youth Exchange Programmes:**

Youth Exchange Programmes between NCC of India and youth organizations of other countries are undertaken yearly. The Exchange Programme includes mutual visits up to 24 days in which cadets undertake billeting families, community work projects, educational activities etc. These projects develop mutual respect, adaptability, self-discipline, cross cultural learning and above all, love for one’s country. India has Youth Exchange Programme with Australia, Bangladesh, Bhutan, Canada, Maldives, Nepal, Singapore, SriLanka, United Kingdom and Vietnam. These programmes give the youth of our nation an enhanced understanding of the international environment and help them to become effective leaders in the future.

1. **National Service Scheme (N.S.S.)**

This Technical campus has been allotted three units of NSS in Engg wing. Each unit has an intake of approx. 200 student volunteers. The central theme of NSS activities is to make students understand that their first duty should be, not only to treat their period of study as one of the opportunities for indulgence in intellectual luxury, but also for preparing themselves for final dedication in the service of those on whose back they are resting. To accomplish this goal, it is sought to arouse the social consciousness of students and provide them with opportunity to work with the people around the educational campus creatively and constructively and to put the education they receive to concrete social use. In fact, the primary aim of the scheme is to enable the students to upgrade their personality and experience through community service. The motto or watch word of NSS is "NOT ME, BUT YOU". This expresses the essence of democratic living and upholds the need for selfless service and appreciation of the other man's point of view and also to show consideration for fellow human beings. NSS units of the Technical campus organize cleanliness camps, plantation camps, blood donation camps, awareness camps, seminars and educational trips to fulfil the mission of NSS. NSS volunteers are awarded with certificates and general fitness marks as per their performance in NSS activities.

Facilities & Usages:-

1. The college NSS unit has organized following camps during one year.

a) Tree plantation camp (26-7-12)

b) Cleanliness camp (13-8-12)

c) Blood donation camp (04-10-12)

d) Seminar (12-9-12)

e) Blood Donation camp (To be organized in Feb. 2013)

f) Educational Trip (To be organized in March 2013)

2. 7-Day Cancer awareness camp (To be organized in Dec-2012 & Jan 2013)

3. Refreshment is provided to the volunteers as per grant received from PTU.

4. NSS certificates are awarded to volunteers by college & University.

5. General Fitness marks (50 marks) are awarded to students as per their performance in camps.

6. The college provides bus facility for educational trip and requisite infrastructure for other camps.

7. Program Officer (NSS) organizes all camps and accompanies the students.

1. Sports grounds facilities, and qualified sports instructors (5)

**Sports Grounds**

Following playgrounds are available in the college

1. 400m Athletic track 01 No’s
2. Hockey ground 01 No’s
3. Volley Ball ground 02 No’s
4. Lawn Tennis court 02 No’s
5. Basket Ball court 01 No’s
6. Cricket ground 01 No’s
7. Hand Ball ground 01 No’s
8. Foot Ball ground 01 No’s
9. Fitness Centre 01 No’s

***F*acilities**

1. Playgrounds are fitted with water sprinkler system for watering ground.
2. Athletic track having facility of lights to practice in the late night.
3. Drinking water facility.
4. Grass cutting machines – 02 no’s
5. Two ground men for cutting the grass, watering the playgrounds and making of the fields.

**Management**

1. Playgrounds are maintained by grounds man.
2. Sports equipment for all the grounds quoted above is given to students for their practice.
3. Inter year sports competitions are organized during the academic year.
4. Inter college competitions are also organized of the game allocated to the college.

**Qualified Sports Instructors**

College has well qualified Director Physical Education having doctorate degree in physical education having experience of nearly 20 years

1. **Academic Support Units and their Contributions to Programs**

**Institute has the following Academic Support Units:**

1. **Industry Institute Interaction Celll (IIIC)**

IIIC has organized following activities with the involvement of Industry for providing practical exposure to the students.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Activity Names** | **CE** | **CHE** | **CSE** | **ECE** | **EE** | **ME** | **IIIC** | **Total** |
| **Workshops** |  |  | **1** |  | **1** | **2** | **1** | **5** |
| **Expert Talks** | **6** | **1** | **4** | **1** | **1** | **4** | **1** | **18** |
| **Industrial Visits** | **2** | **2** | **2** | **1** | **3** | **6** | **3** | **19** |
| **Short Term Course** |  | **1** | **1** | **3** | **1** | **2** | **1** | **9** |
| **Net** | **8** | **4** | **8** | **5** | **6** | **14** | **6** | **51** |

1. **Program-wise Technical Societies (6 No.)**

Programme-wise six technical societies are formed to chisel the technical skills of students in their respective fields

* Society for Electrical Engineering (SEE)
* Society for Mechanical Engineering (SFME)
* Chemical Engineering Society (CHESS)
* Society for Electronics and Communication Engineering (SELCOM)
* COMPUWAVE-Society for Computer Engineers
* InfraTech- Society for Civil Engineers

1. **ISTE Student Chapter**

Indian Society of Technical Education is national, professional non-profit making society to advance the cause technical Education. ISTE Chapters provide technical platforms to student and faculty to share their knowledge

**Major Activities undertaken by ISTE student Chapter**

* Annual Technical Function “Techno-Opus”
* Project Competitions
* Technical Paper Presentation
* Aptitude Tests
* Seminars/Expert Talks on Emerging Technologies
* Career Guidance Seminars

1. **SECA Activities**

Society for Extra-Curricular Activities (SECA) organizes event & activities for students to develop their interpersonal skills and to provide them platforms for creativity and innovation.

**Major Activities undertaken by SECA:**

**Personality Development**

* Group Discussions
* Declamation
* Youth Parliament
* Quiz, etc.

**Cultural activities**

* Skit
* Singing
* Dance
* Choreography

**Annual Activities**

* Annual Cultural Fest “JASHAN”
* Hostel Night Celebration
* Welcome function for freshers
* Farewell function for passing out students, etc.

**Hobbies Development**

* Painting
* Poetry
* Sketching
* Rangoli, etc.

1. **Eco Friendly Group**

Eco friendly group raises the environmental consciousness of the students.

**Major Activities undertaken by SECA:**

* Planted about 7000 Trees in the Campus
* Organized Anti-Polythene Awareness Campaign
* Cleanliness drive
* Best Hostel Competition
* Best Room Competition
* Slogan writing Competition

4.1.3 **How does the institution plan and ensure that the available infrastructure is in line with its academic growth and is optimally utilized? Give specific examples of the facilities developed/augmented and the amount spent during the last four years (Enclose the Master Plan of the Institution/campus and indicate the existing physical infrastructure and the future planned expansions if any).**

The Master Plan of the Institution is enclosed as Annexure---

Various facilities added in the institute during last four years are given as below:

1. Administrative Block-D and Management Block-E at the cost of Rs.7.99 Cr. under NABARD scheme of Punjab Govt.
2. Girls hostel with 40 rooms,Gym, Mess Hall,Reading Room,Common Room at the cost of Rs. 5.15 Cr.
3. Institute has constructed Block-F having 24 lecture hall at the cost of Rs. 6.47 Cr which can accommodate 2000 students
4. New boys Hostel is under construction and likely to be completed by December,2014 at the cost of Rs. 4.0 Cr, out of which Rs. 2.0 Crore we will get from AICTE under SC/ST Grant Scheme.

4.1.4  **How does the institution ensure that the infrastructure facilities meet the requirements of students with physical disabilities?**

1. Ramps are provided in all the newly construted buildings such as Block D, Block E and Block F.

2. In older blocks, all the classes for physicallydifferently abled students are arranged on the ground floors.

4.1.5  **Give details on the residential facility and various provisions available within them:**

**• Hostel Facility–Accommodation available**

**• Recreational facilities, gymnasium, yogacenter, etc.**

**• Computerfacility including accesstointernet in hostel**

**• Facilities for medical emergencies**

**• Library facility in the hostels**

**• Internet and Wi-Fifacility**

**• Recreational facility-common room with audio-visual equipments**

• **Available residential facility for the staff and occupancy**

**Constant supply of safe drinking water**

**• Security**

**Hostel: - Beas Bhawan (Boys)**

Total rooms one seater room =198

Facilities provided in Beas Bhawan:

* Guest room facility
* T.V. room with dish T.V. Connection.
* Common room for indoor Gaines like table tennis chess, carom.
* Fully Wi Fi Connected hotel.
* 2 Lush green parks in hostel.
* Fully furnished mess with fly tracker.
* Gymanism with state-of-art machines

**Staff**

1. Warden = 01
2. Manager = 01
3. Munim = 01
4. Mess worker = 14
5. Security Guard = 03
6. Sweeper = 03
7. Mali = 01

**Hostel: - Ganga Bhawan (Boys)**

Total rooms Three seater room =89

Facilities provided in Ganga Bhawan:

* Guest room facility
* T.V. room with dish T.V. Connection.
* Common room for indoor Gaines like table tennis chess, carom.
* Fully Wi Fi Connected hotel.
* 2 Lush green parks in hostel.
* Fully furnished mess with fly tracker.

**Staff**

Manager = 01

Munim = 01

Mess worker = 18

Security Guard = 03

Sweeper = 03

Mali = 01

**Hostel: - Satluj Bhawan (Boys)**

* Total rooms one seater room = 89
* Facilities provided in Satluj Bhawan:
* Guest room facility
* T.V. room with dish T.V. Connection.
* Common room for indoor Gaines like table tennis chess, carom.
* Fully Wi Fi Connected hotel.
* 2 Lush green parks in hostel.
* Fully furnished mess with fly tracker.
* Computer Lab

**Staff**

Manager = 01

Munim = 01

Mess worker = 17

Security Guard = 03

Sweeper = 03

Mali = 01

**Hostel: - Saraswati Bhawan (Girls).**

Total rooms one seater room =15

Total rooms two seater room =43

Total rooms three seater room =21

Total room =79

**Facilty provided in Saraswati Bhawan**:

* Guest room facility
* T.V. room with dish T.V. Connection.
* Common room for indoor Gaines like table tennis chess, carom.
* Fully Wi Fi Connected hotel.
* 2 Lush green parks in hostel.
* Fully furnished mess with fly tracker.

**Staff**

Manager = 01

Munim = 01

Mess worker = 14

Security Guard = 03

Sweeper = 03

Mali = 01

**Hostel: - Mata Gujri Bhawan (Girls) .**

Total rooms three seater room = 40

Facilty provided in Mata Gujri Bhawan::

* Guest room facility
* T.V. room with dish T.V. Connection.
* Common room for indoor Gaimes like table tennis chess, carom.
* Fully Wi Fi Connected hotel.
* 2 Lush green parks in hostel.
* Fully furnished mess with fly tracker.
* State of art Gymanism
* Footpaths for evening walk

**Staff**

Manager = 01

Common Munim = 00

Common Mess worker = 14

Security Guard = 03

Sweeper = 02

Mali = 01

4.1.6 **What are the provisions made available to students and staff in terms of health care on the campus and off the campus?**

Institute has its own three beded Hospital in an area about 2500sq. ft. (50”X50”) situated in the centre of the Campus area and is in easy reach of all boys & girls and campus staff.

The medical facility available in the college Health Centreare:-

1. B.P. moniysling, pulse checking, temp measurement respiration
2. Blood Gluco Test
3. Injection facility
4. Dressing
5. Treatment of emergency first aid medical staff to provide first aid and medical help in emergency

**Staff:**

1. Doctor 01 (MBBS M.S. Ortho par time)
2. Pharmacist 01
3. Staff Nurse 02 (male & Female)

**Medical facility within the college:-**

1. First aid, Injection and Dressing of wound
2. Treatment of common ailment j.e. fever loose motion diaseohea stomach pain.
3. Blood Gluco Test facility
4. Weight check facility
5. Ambulance

Off campus Medical facilities:-

1. Orthopadic facility- Tarlok Hospital
2. France Newton Hospital: for Indoor admission, surgery and general medical facilities

Medicine used during session:-2011-2012

|  |  |  |
| --- | --- | --- |
| Sr. No. | Name of Medicine | Quantity |
| 1 | Tab ofloxacillin-200 | 2000 |
| 2. | Cap Amoxicillin + dicloxicillin | 2000 |
| 3. | Tab celixime-200 | 500 |
| 4. | Paracetamol-500 | 2000 |
| 5. | Tab Ibuprofen +pens | 5000 |
| 6. | Nimusullde + Pcm | 2000 |
| 7. | Oiut fourderm 5gm | 40 pc |
| 8. | Tab Citrizen | 3000 |
| 9. | Tab folic acid 5mg | 500 |
| 10. | Tab loperamide | 500 |
| 11. | Tab metronidazole -400 | 1000 |
| 12. | Tab Metrocloperhmaids | 200 |
| 13. | Tab dicuclomine + pens | 200 |
| 14. | Ofloxacilin –d-eye drop | 40 pec |
| 15. | Diclofenac gel 30gm | 20 pec |
| 16. | Bandage 2” | 10 |
| 17. | Bandage 4” | 10 |
| 18. | Povioidine soln | 06 pond of 500ml |
| 19. | Povioidine oithment | 02 jar 250gm |
| 20. | Silver sulpha oint | 01 jar 500gm3 |

Medicine used during session:-2012-2013

|  |  |  |
| --- | --- | --- |
| Sr. No. | Name of Medicine | Quantity |
| 1 | Tab ofloxacillin-200 | 2000 |
| 2. | Cap Amoxicillin + dicloxicillin | 2000 |
| 3. | Tab celixime-200 | 400 |
| 4. | Paracetamol-500 | 2000 |
| 5. | Tab Ibuprofen +pcm | 4000 |
| 6. | Nimusullde + Pcm | 3000 |
| 7. | Oint fourderm 5gm | 40 pec |
| 8. | Tab Citrizen | 6000 |
| 9. | Tab folic acid 5mg | 200 |
| 10. | Tab loperamide | 1000 |
| 11. | Tab Metrocloperhmaids | 300 |
| 12. | Tab dicyclomine + pcm | 300 |
| 13. | Ofloxacilin –d-eye drop | 40 pec |
| 14. | Diclofenac gel 30gm | 20 pec |
| 15. | Bandage 2” | 20dz |
| 16. | Bandage 4” | 10dz |
| 17. | Povioidine soln | 05 pond of 500ml |
| 18. | Silver sulpha oint 15mg | 20pc |
| 19. | Tab flagul-400 | 2000 |
| 20 | Electral ORS | 60pec |
| 21 | Cap Tetracycline 250 | 500 |
| 22. | Famotidine 20mg | 1400 |

Medicine used during session:-2013-2014

|  |  |  |
| --- | --- | --- |
| Sr. No. | Name of Medicine | Quantity |
| 1 | Tab ofloxacillin-200 | 4000 |
| 2 | Cap Amoxicillin + dicloxicillin | 3000 |
| 3 | Paracetamol-500 | 2000 |
| 4 | Tab Ibuprofen +pcm | 5000 |
| 5 | Nimusullde + Pcm | 3000 |
| 6 | Tab Citrizen | 5000 |
| 7 | Tab loperamide | 500 |
| 8 | Tab dicyclomine + pcm | 300 |
| 9 | Ofloxacilin –d-eye drop | 50 pec |
| 10 | Bandage 2” | 20dz |
| 11 | Bandage 4” | 10dz |
| 12 | Povioidine soln | 03 pond |
| 13 | Tab flagul-400 | 900 |
| 14 | ORS 21.8gm | 50pkt |
| 15 | Famotidine 20mg | 2800 |
| 16 | Acelofenac + serration peptidas +pcm | 400 |
| 17 | Cap nutrolin-B | 500 |
| 18 | Glucon-D Jar 500gm | 10pc |
| 19 | Inj. Tetnus toxiod | 50pc |
| 20 | Inj. Perinorry | 20pc |
| 21 | Inj. Aciloc | 20pc |
| 22 | Inj. Diclonac | 20pc |
| 23 | Disposable syrings | 200pc |

**List of Blood donation Camp Held in the Institute**

**Sr. No. Date Units donated**

1 8/9/11 99

2. 17/1/12 56

3. 14/10/12 68

3. 27/8/13 122

4. 28/9/13 130

5. 13/3/14 57

6. 20/8/14 108

4.1.7 **Give details of the Common Facilities available on the campus**

**–spaces for special units like IQAC, Grievance Redressal unit, Women’s Cell, Counselling and Career Guidance, Placement Unit, Health Centre, Canteen, recreational spaces for staff and students, safe drinking water facility, auditorium, etc.**

Separate office and halls are provided for each of the the above said facilities.

**4.2 LibraryasaLearningResource**

4.2.1 **Does the library have an Advisory Committee? Specify the composition of such a committee. What significant initiatives have been implemented by the committee to render the library, student/userfriendly?**

Yes, The Academic advisory committee consist of Director as its Chairman and Librarian as Member Secretary and all HODs are its member.

Following significant initiatives have been implemented by the committee to render the library, student/user friendly?

* Installation of Computer in the Library
* Providing dedicated internet facilities on each terminal installed in the Library.
* Procurement of E-Journals
* Procurement of E-Books for self study
* Air conditioned reading room
* Smmoth arrangement for issuing of books to students

4.2.2 **Provide details of the following:**

**∗ Total area of the library (inSq.Mts.) 494 Sq. Mtr**

**∗ Total seating capacity80**

**∗ Working hours (on working days, on holidays, before examination days, during examination days, during** **vacation)** 9AM to 7 PM

∗ **Layout of the library (individual reading carrels, lounge area for browsing and relaxed reading, IT zone for accessinge-resources)**

**Individual reading carrels 2200 Sq. feets**

**lounge area for browsing and relaxed reading 800 Sq. feets**

**IT zone for accessing e-resources 400 Sq. feets**

**(our campus is wi-fi ,e-resources can be accessed on all the systems available in the institute, hostels, residential area of the campus)**

**4.2.3 How does the libraryen sure purchase and use of current titles, printande-journals and other reading materials? Specify the amount spent on procuring new books, journals and e-resources during the last four years.**

Books are purchased as per the guidelines of Good Office Committee (GOC) approved by Govt of India Minister of Finance

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Library holdings** | **Year-1** | | **Year-2** | | **Year-3** | | **Year-4** | |
| **Number** | **Total**  **Cost** | **Number** | **Total**  **Cost** | **Number** | **Total**  **Cost** | **Number** | **Total**  **Cost** |
| **Textbooks** | 4145 | 16,96,499-0 | 2534 | 4,57,658 | 1676 | 4,24,346-00 | 653 | 1,86,166-00 |
| **ReferenceBooks** | 180 | 67000-00 | 100 | 38,00-00 | 80 | 25,00-00 | 30 | 10,000-00 |
| **Journals/ Periodicals** | 79 | 1,64,629-00 | 79 | 1,61,939-00 | 79 | 1,60,326-00 | 67 | 55,889-00 |
| **e-resources** | 447 | 9,97,000-00 | 275 | 3,65,950 | 241 | 4,64,860-00 | 241 | 2,31,410-00 |
| **DELNET** | Membership | 11,500/- | Membership | 11,500/- | Membership | 11,500/- | Membership | 11,500/- |

4.2.4 **Provide details on the ICT and other tools deployed to provide maximum access to the library collection?**

**∗ OPAC: In-progress**

**∗ Electronic Resource Management package fore-journals**YES

∗ **Federated searching tools to search articles in multiple databases: Nil**

∗ **Library Website**YES

∗ **In-house/remote accesstoe-publications** YES

∗ **Library automation**YES

∗ **Total number of computers for public access**10

∗ **Total numbers of printers for public access:** 04

∗ **Internet band width/speed: 34 mbps**

**∗ Institutional Repository : Yes**

**∗ Content management system fore-learning: Yes**

**∗ Participation in Resource sharing networks /consortia (like Inflibnet): Yes**

4.2.5 **Provide details on the following items:**

**∗ Average number of walk-ins** 120

∗ **Average number of books issued/returned**185

∗ **Ratio of library books to students enrolled**6:5

∗ **Averagenumberofbooksaddedduringlastthreeyears**2600

∗ **Average number of login too pac(OPAC)**

**∗ Average number of login toe-resources**20/day

∗ **Average number ofe-resources downloaded/printed** 80/Day

∗ **Number of information literacy trainings organized** 03

∗ **Details of“weedingout”ofbooksandothermaterials** Nil

4.2.6 **Give details of the specialized services provided by the library**

∗ **Manuscripts** No

∗ **Reference**  Yes

∗ **Reprography** Yes

∗ **ILL (Inter Library Loan Service)** Yes

∗ **Information deployment and notification (Information**

**Deployment andNotification)** Yes

∗ **Download** Yes

∗ **Printing**  Yes

∗ **Readinglist/Bibliography compilation**

**∗ In-house/remote accesstoe-resources** Yes

∗ **User Orientation and awareness** Yes

∗ **AssistanceinsearchingDatabases** Yes

∗ **INFLIBNET/IUCfacilities** DELNET

4.2.7 **Enumerate on the support provided by the Library staff to the students and teachers of the college.**

Reference Service, CAS, SDI, Referral Service

4.2.8 **What are the special facilities offered by the library to the visually/physically challenged persons? Give details.**

Not Applicable

4.2.9 **Does the library get the feedback from its users? If yes, how is it analyzed and used for improving the library services. (What strategies are deployed by the Library to collect feed back from users? How is the feedback analyzed and used for further improvement of the library services?)**

Yes, the students put their suggestions in the complaint box which are analysed and due care is given to the suggestion found to be genuine.

Meeting of student representatives are held twice in a semester to discuss the problem faced by the students. Their suggestions are implemented keeping in view the available resources of the Library.

**4.3 IT Infrastructure**

**4.3.1** NumberofcomputerswithConfiguration-

**900 Computer Systems with i3, dual core and p4 processor. These systems have pre installed windows operating system**.

- Computer Student ratio - **1:2**

- Stand alone facility - **yes**

- LAN facitity - **Yes (on almost all the Computer systems)**

- WiFi facility - **Yes (on laptops and mobile devices of staff and students)**

- Licensed software -

**MS Windows NT workstation, MS Windows NT Advanced server, SCO Open server development sys, SCO Open server Enterprise, SCO Open server Enterprise, Novel Netware, Oracle 7 workgroup server, Developer 2000, Power builder enterprise, Turbo C++, MS Visual C++, MS Visual Foxpro, MS Office 97 for windows, Softek Fortran-77, Windows 95, Lotus Notes, Visual Studio Ent 6.0 AE, Borland turbo c++, MS-Windows 2000 OEM, Norton Antivirus Preload, Caldra open linux server, Caldra linux workstation, C++ Software (Codegear c++ Builder 2009 Pro Academic Network Licence), Microsoft Office (MS Office STD 2010 ), Cobol Software ( Softek Cobol 85 DOS Academic Lic), Prolog (Pdc Visual Prolog 7.X ), Data Recovery tools, Qualnet, Windows OS, Rational Rose, NS2, Mysql, Java, Open Office, Linux, Software: MATLAB Version 7, Matlab toolbox, CHEMCAD Version 6.3.2, full suite, Comm – Sim 7, Xilinx, Tanner Tool, Labview, Ansoft HFSS, Auto CAD 2015 , Auto Desk Inventor 2015, Auto CAD Civil 2015, Auto CAD EE 2015, Mechanical Simulation 2015**

- **Number of nodes/ computers with Internet facility - All the systems has internet facility**

4.3.2 **In the college campus computer systems are available in the labs of every department. Beside these, computer systems are available in Computer Center of the college for every student. Also Computer System is issued to every staff member of the college. Laptops are provided to the HODs and faculty members. All these systems/ laptops have internet facility.**

4.3.3 Institution is planning for the up gradation of Network backbone by purchasing latest core 3, Distributed and edge switches. Also institution is gradually increases the internet bandwidth with the increase in no. of new blocks and student intake.

4.3.4 **Year wiseannualbudget forprocurement,up gradation, development andmaintenance of the computers and their accessories in the institution is as follows:**

Year Budget (in lacs)

2011-2012 30

2012-2013 21.50

2013-2014 35.2

4.3.5 Teachers and lab staff use LCD projector and Power Point Presentations to show the graphical contents.

4.3.6 There are smart classrooms in the departments. Also labs are equipped with LCD projectors. College has sufficient equipment for EDUSAT and through this system live lectures are received captured as per schedule.

4.3.7 College has National Knowledge Network (NKN) connectivitydirectly through MoU signed between college and Central Government. Through this connectivity internet service is running.

**4.4 MaintenanceofCampusFacilities**

4.4.1 **How does the institution ensure optimal allocation and utilization of the available financial resources formaintenance and up keep of the following facilities (substantiate your statements by providing details of budget allocated during last Four years)?**

|  |  |
| --- | --- |
|  |  |
| **a.** | **Building** |
| **b.** | **Furniture** |
| **c.** | **Equipment** |
| **d.** | **Computers** |
| **e.** | **Vehicles** |
| **f.** | **Anyother** |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | 2010-11 | 2011-12 | 2012-13 | 2013-14 |  |
| Building | 271077 | 2804191 | 2947053 | 5725870 |  |
| Furniture | 584433 | 675284 | 926007 | 1164835 |  |
| Equipment | 3976709 | 7455825 | 3132530 | 1259744 |  |
| Computers | 273014 | 704497 | 1212860 | 1539082 |  |
| Vehicles | 558712 | 852049 | 824107 | 741655 |  |
| Any Other | 14569856 | 3054004 | 1750595 | 16351489 |  |

4.4.2 **What are the institutional mechanisms formaintenance and up keep of the infrastructure, facilities and equipment of the**

**college?**

* + - 1. The Institute has seprate Maintenance section having Maintanance Engineer, Maintenance Supervisior along with 25 sporting staff such as mason,carpnters,plumber,electricions andhelpers.
      2. Seprate budget is kept for maintenanceandand upkeeping of the infrastructure.
      3. Most of the quipment like coputers,UPS,Networking equipmet etc is covered under AMC.
      4. All HODs has been given approval and DDO powers up to Rs. 1.00 Lacs per purchase for upkeeing and maintenance of infrastructureal facilities.

4.4.3  **How and with what frequency does the institute takeup calibration and other precision measures for the equipment/ instruments?**

1. During summer vacation of about two months, equipmentsare calibrated and repaired accordingly.

2. Stock verification is done during this period at department level and equipmet is repared, maintained and write off if required.

4.4.4 **What are the major steps taken for location, up keep and maintenance of sensitive equipment (voltage fluctuations, constant supply of water etc.)?**

Institute is having HOT-Line power supply and two Generators for providing Power back up to sensitive equipments.

Institute has its own water supply system, which is available for 24 howers.

Log books ofsensitiveequipments are maintained at department level.

**CRITERIONV:STUDENTSUPPORT ANDPROGRESSION**

**5.1 StudentMentoringandSupport**

5.1.1 **Does the institution publish its updated prospectus/handbook annually? If ‘yes’ ,what is the information provided to students through these documents and how does the institution ensure** **its commitment and accountability?**

Yes, it contains all the information related to type of course available, faculty of respective department alongwith their qualifications, rules and regulations of the institute, fee structure, different societies and their functions etc etc.

Institute Information brochure is available on institute website [www.sbsstc.ac.in](http://www.sbsstc.ac.in)

5.1.2 **Specify the type, number and amount of institutional scholarships/free ships given to the students during the last four years and whether the financial aid was available and disbursed on time?**

Detail of Institutional Scholar Ships given to students in time

:

|  |  |  |
| --- | --- | --- |
| Year | No.of Students | Amount in Rs. |
| 2010-11 | 11 | 7,63,495 |
| 2011-12 | 15 | 10,90,723 |
| 2012-13 | 12 | 9,12,815 |
| 2013-14 | 11 | 6,83,349 |
|  |  |  |

5.1.3 **What percentage of students receive financial assistance from state government, central government and other nationalagencies?**

Schloarships from state and other states are directly given to students in their respective accounts.

Institute scholarships are also given to students from its own resources as Student Aids.

5.1.4 **What are the specific support services/facilities available for**

* **Students from SC/ST, OBC and economically weaker sections**: Yes, Tution fee is not charged from students from SC/ST, OBC and EWS categories.
* **Students with physical disabilities** :Student Aid is given if found eligible.
* **Overseasstudents**: No
* **Students to participate invarious competitions/National and International** : No
* **Medical assistance to students: health centre, health insurance etc.** Yes, Student Exigency fund is maintained in the institute.
* **Organizing coaching classes for competitive exams** :Yes, Every year coaching classes are engaged for preparing the students for competitive exams.
* **Skill development (spoken English, computerliteracy, etc.,)** Yes: Soft skilss and personality development classes are conducted every years for all students.
* **Support for “slow learners”**: Extra remedial classes are conducted during off working days for weaker students
* **Exposures of students too ther institution of higher learning/corporate/business house etc**. Yes, students are taken for industrial trips every semester., they are also given industrial training in big industries for a period of 6 months.
* **Publicationofstudentmagazines:** students are motivated to publish their works in magazines and in institute newsletter.

5.1.5 **Describe the efforts made by the institution to facilitate entrepreneurial skills, among the students and the impact of the efforts**.

Institute has Industry Institute Interaction Cell (IIIC) and Entrepreneur cell for developing entrepreneurial skills among the students. They were guided how to set up their own units and from where they can get financial and other helps for setting up of an industry.

5.1.6 **Enumerate the policies and strategies of the institution which promote participation of students in extra curricular and co- curricular activities such as sports, games, Quiz competitions, debateanddiscussions,cultural activities etc.**

**∗ additional academic support, flexibility in examinations**

**∗ special dietary requirements, sports uniform and materials**

**∗ anyother**

1. Institute has General Fitness Marks in each Semester wich are given to students on the basis of their performance in sports, cultural actiuvities, curricular, co-curricular and extra curricular activities.
2. Institute has more than 8 different societies for involving the students in technical and non-technical competitions.
3. TA/DA is provided to the students for participation in inter college /inter university competitions
4. College has its own transport facilities which is also provided to the students
5. Annual budget is also allocated for sports/extra curricural activities
6. Sports students are also provided diet per day as per Govt. norms/university,sports equipments etc.

5.1.7 **Enumeratingonthesupportandguidanceprovidedtothe studentsinpreparingforthecompetitiveexams,givedetails onthenumberofstudentsappearedandqualifiedinvarious competitiveexamssuchas UGC-CSIR-NET,UGC-NET,SLET, ATE/CAT/GRE/TOFEL/GMAT/ Central/Stateservices,Defense,CivilServices,etc.**

1. Extra classes for personality development are conducted for students through professional Agencies.
2. Career Guidance cell provide guidance and prepare the students for competitive exams.

5.1.8 **Whattypeofcounsellingservicesaremadeavailabletothestudents(academic,personal,career,psycho-socialetc.)**

Academic,Personal,Career and psycho-social counseling are provided to thestudents through Dean Academis, Chief Counsellor, Dean Student welfare respectively.

5.1.9 **Doestheinstitutionhaveastructuredmechanismforcareer guidanceandplacementofitsstudents?If‘yes’,detailonthe**

**servicesprovidedtohelpstudentsidentifyjobopportunities andpreparethemselvesforinterviewandthepercentageof students selectedduringcampusinterviewsbydifferent employers(listtheemployersandtheprogrammes).**

YES

|  |  |  |  |
| --- | --- | --- | --- |
| **Campus Placement Record 2012-2014** | | | |
|
|  |  |  |  |
| **Sr No** | **Name of the Company** | **Batch** | **No. of Selected Students** |
| 1 | INFOSYS | 2014 | 23 |
| 2 | Unit Nexus | 2014 | 5 |
| 3 | One Infonet, Mohali | 2014 | 13 |
| 4 | Arcadian Technocrats | 2014 | 1 |
| 5 | Indian Army | 2014 | 9 |
| 6 | IATC-Seimens Network | 2014 | 5 |
| 7 | Rockman Industries | 2014 | 11 |
| 8 | Enbake Consulting | 2014 | 2 |
| 9 | Rawelcom | 2014 | 2 |
| 10 | INFOSYS | 2013 | 22 |
| 11 | ABSOLUTE SPORTS PVT. LTD. | 2013 | 4 |
| 12 | PROACTIVE Soft India Ltd. | 2013 | 7 |
| 13 | VVDN, Gurgaon | 2013 | 8 |
| 14 | GVK | 2013 | 3 |
| 15 | MAX INDIA | 2013 | 1 |
| 16 | Henkel Adhesive Technologies India Pvt Ltd | 2013 | 2 |
| 17 | SONALIKA TRACTORS | 2013 | 3 |
| 18 | Enbake Consulting | 2013 | 3 |
| 19 | HCL Technologies Ltd. (Bserv) | 2013 | 1 |
| 20 | INDIAN AIR FORCE | 2013 | 1 |
| 21 | SBSSTC | 2013 | 12 |
| 22 | GVK | 2012 | 2 |
| 23 | HCL COMNET | 2012 | 1 |
| 24 | HEWITT | 2012 |  |
| 25 | DELL SERVICES | 2012 | 3 |
| 26 | NEC HCL | 2012 | 1 |
| 27 | V-SERV BUSINESS | 2012 | 1 |
| 28 | INFOGAIN | 2012 | 8 |
| 29 | SASKEN | 2012 |  |
| 30 | SONALIKA | 2012 | 3 |
| 31 | ENBAKE CONSULTANCY | 2012 | 4 |
| 32 | ERP gurus | 2012 | 12 |
| 33 | ESCORTS | 2012 | 3 |
| 34 | EXPECIENT | 2012 | 1 |
| 35 | GRUNDFOS | 2012 | 3 |
| 36 | INDIAN ARMY | 2012 |  |
| 37 | INFOSYS | 2012 | 35 |
| 38 | INTELLISENSE TECHNOLOGY | 2012 | 2 |
| 39 | MAX INDIA | 2012 | 2 |
| 40 | NESTLE | 2012 | 3 |
| 41 | SMART INFRA PROJECTS | 2012 |  |
| 42 | SYNTEL | 2012 |  |
| 43 | VIBETECH SOLUTIONS | 2012 | 6 |
| 44 | TRIDENT IOL | 2012 | 2 |
| 45 | NOKIA SEIMENS | 2012 | 4 |
| 46 | BAJAJ MOTOR LTD. | 2012 | 8 |
| 47 | TECH MAHINDRA | 2012 | 1 |
| 48 | WONDER PLC | 2012 | 1 |
| 49 | GITCO | 2012 | 1 |
| 50 | TAB TECHNOLOGY | 2012 | 1 |
| 51 | ERNST & YOUNG (EY) | 2012 | 1 |
| 52 | SHARP ELECTRONICS | 2012 | 2 |
| 53 | VVDN | 2012 | 2 |
| 54 | CISCO | 2012 | 1 |
| 55 | IMFINITY | 2012 | 1 |
| 56 | ABLY SOFTWARE PVT. LTD. | 2012 | 1 |
| 57 | WIPRO | 2012 | 1 |
| 58 | SOPARA | 2012 | 1 |
| 59 | KUDOS Pharmaceuticals | 2012 | 1 |
| 60 | PARAS LUBRICANTS | 2012 | 1 |
| 61 | VIPL SOLUTIONS | 2012 | 1 |
| 62 | CMC LTD. | 2012 | 1 |
| 63 | ASSITANT PROFESSOR | 2012 | 3 |
| 64 | CEC LANDRAN | 2012 | 1 |
| 65 | PIT KAPURTHALA | 2012 | 1 |
| 66 | Dept. OF POST, JALANDHAR | 2012 | 1 |

**5.1.10 Does the institution have a student grievance redressalcell? If yes, list (if any) the grievances reported and redressed during the last four years.**

Yes, any student can approach the students grievance cell for redressal of his/her grievances. Till date none of the students have reported against the finding of students grievance cell.

**5.1.11 What are the institutional provisions for resolving issues pertaining to sexual harassment?**

There is a Women grevences Cell and Anti Sexual Harassment Committee in the institute with female member as its Chairman to handle all such issues.

**5.1.12 Is there an anti-ragging committee? How many instances (ifany) have been reported during the last four years and what action has been taken on these?**

Yes, institute has anti ragging committees and anti ragging squads for checking the ragging activities of students.

No, Ragging incident had been reported during last four years. Some complaints were received but found to be cases of cross rivalry among the students.

5**.1.13 Enumerate the welfare schemes made available to students by the institution.**

1. Student Aid Fund for weaker students

2. Student Exigency Fund for students in case of death of bread earner.

**5.1.14 Does the institution have a registered Alumni Association? If‘yes’ ,what are its activities and major contributions for institutional, academic and infrastructure development?**

Yes, the institute has registered body of Alumnus.

1. The institute holds Alumini Meet of the passed out students annually.
2. Department-Wise Online Alumini surveys are conducted for the passed out batches after every 3 years
3. Department-wise Exit Survey are conducted for the passing out batch in their last semester
4. A number of groups on the **Social Websites like Facebook etc.** are used to disseminate the information to the Alumni
5. Alumni Registration is done through one online form published on college websit [**www.sbsstc.ac.in**](http://www.sbsstc.ac.in)
6. The feedback given by alumnus are used to improve curriculum, teaching and placement methods.

**5.2 StudentProgression**

**5.2.1 Providing the percentage of students progressing to higher education or employment (for the last four batches) high light the trends observed.**

|  |  |
| --- | --- |
| **Student progression** |  |
| **UG to PG** |  |
| **PG to M.Phil.** |  |
| **PG to Ph.D.** |  |
| **Employed**  **• Campusselection**  **• Other than campus recruitment** | 2012—125students  2013 –66 students  2014-71 students |

**5.2.2 Provide details of the programme wise passpercentage and completion rate for the last four years (cohortwise/batchwise asstipulatedbythe university)? Furnishprogramme-wise details in comparison with that of the previous performance of the same institution and that of the Colleges of the affiliating university within the city/district.**

Pass Percentage and completion rate for last four years of students of

Department of Mechanical Engineering

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Year of Entry**  **In reverse chronological order)** | **Number of students admitted in first year + Admitted lateally in 2nd year**  **(N1+N2)** | **Number of students successfully completing 1st year** | **Number of students successfully completing 2nd year** | **Number of students successfully completing 3rd year** | **Number of students successfully earning their degree in just 4 years** |
| 13-14 | 126 |  |  |  |  |
| 12-13 | 150 | 33 |  |  |  |
| 11-12 | 155 | 27 | 29 |  |  |
| 10-11 | 143 | 32 | 54 | 48 |  |
| 09-10 | 106 | 37 | 43 | 37 | 61 |
| 08-09 | 106 | 33 | 42 | 39 | 72 |
| 07-08 | 101 | 36 | 46 | 41 | 52 |

Pass Percentage and completion rate for last four years of students of

Department of Chemical Engineering

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Year of Entry**  **In reverse chronological order)** | **Number of students admitted in first year + Admitted lateally in 2nd year**  **(N1+N2)** | **Number of students successfully completing 1st year** | **Number of students successfully completing 2nd year** | **Number of students successfully completing 3rd year** | **Number of students successfully earning their degree in just 4 years** |
| 13-14 | 19 |  |  |  |  |
| 12-13 | 31 | 14 |  |  |  |
| 11-12 | 34 | 14 | 16 |  |  |
| 10-11 | 37 | 7 | 4 | 17 |  |
| 09-10 | 35 | 8 | 9 | 16 | 23 |
| 08-09 | 22 | 4 | 3 | 6 | 14 |
| 07-08 | 19 | 3 | 4 | 4 | 10 |

Pass Percentage and completion rate for last four years of students of

Department of Electronics and Communication Engineering

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Year of Entry**  **In reverse chronological order)** | **Number of students admitted in first year + Admitted lateally in 2nd year**  **(N1+N2)** | **Number of students successfully completing 1st year** | **Number of students successfully completing 2nd year** | **Number of students successfully completing 3rd year** | **Number of students successfully earning their degree in just 4 years** |
| 13-14 | 67 |  |  |  |  |
| 12-13 | 113 | 27 |  |  |  |
| 11-12 | 113 | 39 | 33 |  |  |
| 10-11 | 116 | 27 | 47 | 79 |  |
| 09-10 | 108 | 42 | 63 | 84 | 92 |
| 08-09 | 109 | 42 | 67 | 73 | 93 |
| 07-08 | 108 | 52 | 65 | 67 | 92 |

Pass Percentage and completion rate for last four years of students of

Department of Computer Science and Engineering

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Year of Entry**  **In reverse chronological order)** | **Number of students admitted in first year + Admitted lateally in 2nd year**  **(N1+N2)** | **Number of students successfully completing 1st year** | **Number of students successfully completing 2nd year** | **Number of students successfully completing 3rd year** | **Number of students successfully earning their degree in just 4 years** |
| 13-14 | 98 |  |  |  |  |
| 12-13 | 151 | 145 |  |  |  |
| 11-12 | 150 | 150 | 149 |  |  |
| 10-11 | 149 | 148 | 147 | 147 |  |
| 09-10 | 108 | 108 | 108 | 108 | 96 |
| 08-09 | 112 | 109 | 109 | 112 | 90 |
| 07-08 | 106 | 106 | 106 | 103 | 93 |

Pass Percentage and completion rate for last four years of students of

Department of Electrical Engineering

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Year of Entry**  **In reverse chronological order)** | **Number of students admitted in first year + Admitted lateally in 2nd year**  **(N1+N2)** | **Number of students successfully completing 1st year** | **Number of students successfully completing 2nd year** | **Number of students successfully completing 3rd year** | **Number of students successfully earning their degree in just 4 years** |
| 13-14 | 19 |  |  |  |  |
| 12-13 | 31 | 14 |  |  |  |
| 11-12 | 34 | 14 | 16 |  |  |
| 10-11 | 37 | 7 | 4 | 17 |  |
| 09-10 | 35 | 8 | 9 | 16 | 23 |
| 08-09 | 22 | 4 | 3 | 6 | 14 |
| 07-08 | 19 | 3 | 4 | 4 | 10 |

Pass Percentage and completion rate for last four years of students of

Department of Computer Applications and Management

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Academic Performance | | | | |
|  | 2010-13 | 2011-14 | 2012-15 | 2013-16 |
| MCA | 100% | 99% | running | running |
| MBA | 98% | 99% | 99% | Running |
| BCA | 66% | 65% | Running | Running |

**5.2.3 How does the institution facilitate student progression to higher level of education and/or towards employment?**

* + - * The institute has career guidance cell which guide the interested students to pursue their career in higher education.
      * The institute organize job fairs for campus placement of students.
      * The students who are interested for higher education get admission in our college in PG cources
      * Training and placement cell helps the students for job by calling industries for interview,written tests etc.

**5.2.4 Enumerate the specialsupport provided to students who are at risk of failure and dropout?**

In this regard colleg conducts remedial classes for weaker students.

There is department council cell and chief councellor to sort out such problems.

**5.3 Student Participation and Activities**

**5.3.1 List the range of sports, games, cultural and other extra curricular activities available to students. Provide**

**Details of participation and program calendar.**

Annual athletic meet is held every year in the institute in which more than 800 students participate in different activities of sports.

**Sports Grounds**

Following playgrounds are available in the college

* + 1. 400m Athletic track 01 No’s
    2. Hockey ground 01 No’s
    3. Volley Ball ground 02 No’s
    4. Lawn Tennis court 02 No’s
    5. Basket Ball court 01 No’s
    6. Cricket ground 01 No’s
    7. Hand Ball ground 01 No’s
    8. Foot Ball ground 01 No’s
    9. Fitness Centre 01 No’s

**Facilities**

* + - 1. Playgrounds are fitted with water sprinkler system for watering ground.
      2. Athletic track having facility of lights to practice in the late night.
      3. Drinking water facility.
      4. Grass cutting machines – 02 no’s
      5. Two ground men for cutting the grass, watering the playgrounds and making of the fields.

**5.3.2 Furnish the details of major student achievement sinco-curricular, extra curricular and cultural activities at different levels: University/State/Zonal/National/International, etc. for the previous four years.**

* Our students have won the Yoga Competition, solo and group dance, Gidha and song competition in University level competitions.
* Our students have also won Volleybal, Hockey and basketball competitions at district level competitions.

**5.3.3 How does the college seek and used at a and feed back fromits graduates and employers, to improve the performance and quality of the institutional provisions?**

College gets feedback twice in every Semester and on th basis of feedback, HODs of respective deparments council the faculty members individualy.

**5.3.4 How does the college involve and encourage student stopublish materials like catalogues, wallmagazines, college magazine, and other material? List the publications/ materials brought out by the students during the previous four academic sessions.**

* Students editors of different language are appointed as per the interests of students who motivate other students for publications of their works
* Competitions are arranged for publications of Technical, and non-technical articles.
* Students are encouraged to publish in annual magazines “Mathan” and monthly newsletter “Veronica”.

**5.3.5 Does the college have a Student Councilorany similar body?**

**Give details on its selection, constitution, activities and funding.**

YES, Each department has Student Council cell and a chief counallor at the institute level. But there is no student body in the institute.

**5.3.6 Give details of various academic and administrative bodies that have student representatives on them.**

In the following academic & administrative bodies students have their representations

College Council

Student Aid Fund Committee

Student Exigency Fund Committee

NCC/NSS

Mess Committee of all the hostels

Sports committee

**5.3.7 How does the institution network and collaborate with the**

**Alumni and former faculty of the Institution.**

* The institute holds Alumini Meet annually and invites all pass out students as well as ex-faculty members.
* In addition to invitation published in the leading newspapers, a number of groups on the Social Websites like Facebook etc. are used to disseminate the information to the Alumni.
* Department-Wise Online Alumini surveys are conducted for the passed out batches after every 3 years
* Department-wise Exit Survey are conducted for the passing out batch in their last semester
* Alumni Registration is done through one online form published on college websit www.sbsstc.ac.in

**CRITERION VI: GOVERNANCE, LEADERSHIPAND MANAGEMENT**

**6.1 Institution Vision and Leadership**

**6.1.1 State the vision and mission of the Institution and enumerate on how the mission statement defines the institution’s distinctive characteristics in terms of addressing the needs of the society, the students it seeks to serve, institution’s traditions and value orientations, vision for the future, etc.**

**Vision**

To be identified as preferred destination for professional studies responsive to industrial and societal needs of the country.

**Mission**

1. Development of technically competent manpower with requisite analytical, theoretical and managerial skill and practical exposure.
2. All round development of students, staff and faculty by providing conducive environment and infrastructure for learning, skill development and research.
3. Imbibing versatility, adaptability and yearning for excellence amongst students with highest ethical values as their inner strength.

The College ensures that its vision and mission statement clearly defines the institution‘s distinctive characteristics in the following manner:

1. SBSSTC was set up with a mission to impart such knowledge as may be necessary for the all round development of the character of students thereby making them capable of being better employed and at par with the highly competitive job markets.
2. The institution follows a three-fold system with academic, co-curricular and extra–curricular programs.
3. The academic design is based on enhancing and empowering the knowledge base of the students. The focus is on the recent trends in technology.
4. The college visualizes at facilitating young adult learners with opportunities to kindle their ethics and leadership potential thereby sensitizing learners towards inclusive social concerns, human rights, gender and environmental issues.
5. The College has drawn a clear perspective plan for future development and to maintain competitive edge in quality and system.

**6.1.2 What is the role of top Management, Principal and Faculty in design and implementation of its quality policy and plans?**

i) The Management, Director, HODs and the faculty are always stepping in together for designing and proper applications of the quality policy and plans.

ii) The faculty members are actively involved in decision-making process at their levels. A few Faculty members are in the committees like Anti-ragging Committee, Research and Development Cell, Training and Placement Cell, Department Technical Societies, Publication Committee, Examinations Committee, Sports day Committee, Cultural festival Committee, and many other committees that are constituted for the smooth conduction of various events.

iii) All the new and revised policies to improve academic activities, methodology of conducting examinations are reviewed and discussed in HODs meeting before implementation. Importantly, the Director provides academic leadership and in association with the various faculties, evolves strategies for academic growth of the institution.

**6.1.3 What is the involvement of the leadership in ensuring :**

- *The policy statements and action plans for fulfillment of the stated mission.*

The BOG takes responsibility in providing the facilities for learning and growth of the college. Prior planning is made by every department well before the commencement of the academic year and after critical study, the budget is allocated under various heads for improving infrastructure and development of the institute.

As many of the students are from the rural background there is a need to stress on improving their communication skills and make them job / placement ready by the time they leave the college. Keeping this in mind the Training and Placement department is strengthened, which in turn reflects the mission statement.

The mission is also to produce highly competent engineers with excellent technical and behavioral skills. The students are trained in these aspects through regular curriculum, co-curricular activities like guest lectures, seminars and training in various other aspects. The Management proactively supports all these activities. Thus the leadership helps in moulding the students into worthy citizens of the society.

- *Formulation of action plans for all operations and incorporation of the same into the institutional strategic plan.*

Based on the policy statements, the management advises the staff to accomplish the strategic plans through various activities. The success of different activities is ensured through strict adherence to the action plans such as

* Academic calendar for the college which details the curricular activities
* Calendar of events for co-curricular and extra-curricular activities by individual

Departments.

* Budgetary sanctions
* Lesson and course plans
* *Interaction with stakeholders*

Keeping in mind the stakeholders whom the college has to serve such as students, faculty, parents, industry, government and society, the leadership focuses on how to interact with various stakeholders. The inputs and feed back about the functioning and various other aspects of the college is collected through a number of ways.

* Interacting and getting the opinion of the regular students through various platforms like grievance redressal committee, formal &informal feedback, counseling etc..
* Organizing parents meeting during the admission process, interacting with them during counseling and obtaining the views and suggestions of parents.
* Recording the opinions of the academicians and other eminent people when they visit the college
* Interaction with faculty members through various formal and informal meetings and also obtaining feedback from them.
* Alumni is best source to obtain un-biased feed back basing on their experience within the college and the external world.
* The feed back of the recruiters from various companies helps the college to identify any improvisations required in the talents of the students.
* The college also tries to get feedback from the employers through the placement cell about the performance of our students working in their organization.

The feedback received from all stakeholders is critically reviewed, analyzed and remedial actions will be initiated. The management encourages the participation of the staff in the process of decision making in institutional functioning. The personal interaction of the Principal with various stakeholders, the faculty, the non teaching staff, the students and the guardians also plays an important role in this. Thus, participatory role of the management encourages and sustains the involvement of the college staff, which is necessary for the efficient and effective running of the College.

- *Proper support for policy and planning through need analysis, research inputs and consultations with the stakeholders.*

The inputs collected from various stakeholders will be taken into cognizance by the management and through various interactive methods with the staff helps them in identification of critical areas for development and reviews progress in continuous improvement.

- *Reinforcing the culture of excellence.*

The institute always benchmarks itself with best institutes in the country and tries to implement the best practices. It channelizes the procedures and practices in tune with such practices to create an ambience that is most conducive for academic excellence. Infosys has recognized SBSSTC as Centre of excellence.

- *Champion organizational change.*

SBSSTC follows a structured approach for ensuring that changes are smoothly and successfully implemented, and that the lasting benefits of change are achieved. In order to accomplish this, SBSSTC aligns stakeholders expectations, communicates, and integrates with employees efforts for the growth of the institution.

It makes use of performance metrics in terms of pass percentage, placement percentage, presentation in conferences, journal publication, accepted proposals, consultancy work etc to design appropriate strategies. These are communicated to the employees so that they execute and accomplish the requirements as per the strategies set.

**6.1.4 What are the procedures adopted by the institution to monitor and evaluate policies and plans of the institution for effective implementation and improvement from time to time?**

Institute adopts the following procedures:

1. Faculty plans the course well in advance. He / she also monitor the delivery.
2. Subject faculty and HOD monitor daily/weekly/monthly attendance of the students and use this for delivery of academics.
3. Institute conducts monthly unit test & display the marks of students.
4. Institute does analysis of University examination results.
5. Class co-coordinator conducts students meeting once in a month & takes review of attendance, syllabus completion and students difficulties.
6. Institute conducts Parent meet every semester and interact with them.
7. Institute conducts meeting with industrial experts.
8. Institute conducts project, papers competitions and reviews the research.
9. Institute takes feedback from students, parents, alumni, industry persons.
10. In statutory bodies such as Governing body, experts from various fields are members and they contribute towards the development of the institution.
11. The effective improvement of students in terms of academics is measured through percentage of marks obtained with reference to earlier situation.
12. Result analysis has been done and is reviewed by the Director and concerned HODs for further improvements.

**6.1.5 Give details of the academic leadership?**

* The institute provides adequate freedom to faculty for strengthening teaching–learning process, academic advancement, nurturing multifaceted talent in students, Entrepreneurship development and Research.
* Faculty is at liberty to formulate plans for preparing required learning material, organizing various programme for curricular and extracurricular abilities, encouraging enthusiastic learners for professional competency, designing new experimental set up in laboratories, taking up in house R &D projects. The freedom of action motivates faculty for creative and innovative practices, coordination and team work.
* The staff members are also given faculty development programs to enrich themselves for the changing scenario of the educational field.
* Faculty is encouraged to enroll for higher studies. Faculty members are give incentives in the form of three years leave with 25% basic pay in addition to salary for PhD work. The faculty members who enroll for part-time study, their course fee is fully reimbursed.

**6.1.6 How does the college groom leadership at various levels?**

Principal is the academic as well as the administrative head of the institution. He acts independently by blending the rules and regulations as well as the norms laid down by the AICTE and Punjab Technical University with the policies and strategies/byelaws of the college. The college believes in decentralization of administration and transparency of governance. Independence is given to all Heads of the Departments in planning, organizing and implementing various activities in the departments in a effective way. The HODs in turn will delegate the authority and support the faculty in taking up various departmental activities. Various committees were constituted as given below and the committee chair person / coordinator works independently to ensure the objectives of the committee are met with.

i) Purchase Committee

ii) Disciplinary Committee

iii) Institutional Development Committee

iv) Students Affair Committee

v) Library Committee

vi) Grievance Committee

vii) Anti-Sexual Harassment Committee

The college ensures that leadership is groomed at various levels through these committees which create an ambience of trust and enhance competence and foster a sense of belongingness to the institution among the faculty and students.

**6.1.7 How does the college delegate authority and provide operational autonomy to the departments / units of the institution and work towards decentralized governance system?**

The Director is the administrative head of the College. However certain administrative functions are delegated to the Heads of Departments and various functionary committees to ensure a decentralized governance system. The Governing body has also approved of the constitution of Committees involving Staff members, which perform an advisory role in matters within their designated sphere of activity and also help in the execution of administrative decisions. Organizational chart of the college are as follows:

Society

Chairman &

Board of Governors

**Sub-Committees**

1. Finance Committee
2. Build & Works Committee
3. Human Resource Committee
4. TEQIP Committee

Director

**Director**

Registrar

Teaching

Non-Teaching

**Associate Directors**

EW, MW, PW, CA, SW

**Head of Departments**

CE, CHE, CSE, ECE, EE, ME

Professor

Assoc. Professor

Asstt. Professor

Lab Supdt.

Sr. Technician

Jr. Technician

Clerk

Attendant

Library

DPE

TPO

**Deans**

Approvals

PG Studies

Student Welfare

Academics

**Deputy Registrars**

Establishment , Legal, OIA

Superintendent

Sr. Assistant

Jr. Assistant

Asstt Registrar

Estate Officer

Security

House Keeping

Maintenance

Horticulture

**6.1.8 Does the college promote a culture of participative management? If ‘yes’, indicate the levels of participative management.**

* Yes, the college promotes a culture of participative management. The management of the college rests with its Governing Body, whose member, is appointed in accordance with the guidelines provided in institution bye-laws.
* The Director is the academic and administrative head of the Institution and also the member secretary of the governing body.
* The Heads of Departments are responsible for the day-to-day administration of the departments and report directly to the Director.
* HODs have major role in development, procurement, selection of faculty, programs and activities, academic calendar, research and start of new programs.
* Additionally, every department has distributed various duties among faculty members which play an important role in various institutional functions. These duties have been discussed in departmental meetings conducted and the minutes of these meetings are recorded.
* The faculty is actively involved in planning and implementing the academic calendar and teaching learning. The planning and organization of co curricular and extracurricular activities is done by faculty, non teaching staff and students.
* The Board of Governors of the Institute has representation of two faculty members.

**6.2 Strategy Development and Deployment**

**6.2.1 Does the institution have a formally stated quality policy? How is it developed, driven, deployed and reviewed?**

A number of mechanisms have been taken to translate quality to its various sections by the institute. The plans and policies are geared up by the Academic Committee comprising of Dean Academic, Dean PG Studies and all HODs based on the activities suggested by various departments for the particular semester. The prepared plan is placed before the faculties, Student Representatives and administrators for an open discussion. An accord is arrived at, finalized and implemented after required permissions from institute director. The director holds formal and informal dialogues with the staff, from time to time, to redress any grievances. In the academic units, teachers are encouraged and supported to participate in seminars, conferences, workshops and refresher and orientation courses to update their knowledge.

**6.2.2 Does the institute have a perspective plan for development? If so, give the aspects considered for inclusion in the plan.**

The college has plans to expand both in the UG and PG levels. Plans have been chalked out to get the NBA Accreditation for eligible departments and to obtain Academic Autonomy for the institution. Apart from that there is a plan to upgrade to the Deemed University status.

Usually perspective plans are chalked out annually. They are based on the instructions from Director of institution after meeting all concerned heads of various departments being considered for an agenda point for discussion at annual governing body meeting. The same is reviewed periodically throughout academic year in measuring efficiency.

**6.2.3 Describe the internal organizational structure and decision making processes.**

**Organization and Governance**

The college has a well-framed administrative set up conforming to the norms of the regulatory bodies.

1. **Administration setup**

* The institute Director wields the powers with regard to financial and to all the academic and administrative matters.
* The Director discusses all the administrative problems with HODs.
* To expedite the organizational work and minimize undue delays in decision making, the college administration has been decentralized to a large extent.
* Head of the department assigns various tasks to members of the faculty and staff.
* The statutory and the non-statutory committees look after the academic and administrative procedures.
* The statutory committees are constituted as per the guidelines of the regulating bodies (AICTE, PTU) / State Govt / Institute Bye-laws.
* Non-statutory committees which have their well defined Charters.
* The HOD initiates appropriate administrative measures for strengthening
* the teaching learning processes. HOD is given autonomy to take academic/administrative decisions.
* Dean, Academic affairs have authority and responsibility to modify, interpret, adapt and change academic policies.
* Dean Student Affairs is responsible for creating and maintaining a safe, healthy and supportive environment and culture that synthesizes the intellectual, physical, social, emotional and spiritual development of students in a holistic way.
* TPO looks after tasks related to Training and Placement activities.
* All the activities of the institute are meticulously planned, properly coordinated and perfectly executed.

1. **Academic Activities:**

* Decisions pertaining to academic matters are decentralized to a large extent. Allotment of course work, monitoring of syllabus coverage, planning and organizing seminars guest lectures, workshops, industrial tours, staff orientation programs, remedial sessions, Personality development programs, add on courses, project works are also organized as per the instructions of the HOD.

1. **Financial Powers:**

* With the approval of BOG, purchasing power and DDO powers have been delegated to all HODs for purchasing up to Rs. 1.00 Lac per item.
* With the approval of BOG, Registrar of the institute is empowered to release salary of all employees, loan and advances, pension and gratuity, fee refund of students.

The following statutory committees are functioning in the college to look after the administrative and academic procedures

**Statutory committees:**

* Governing Body
* Building and works Committee
* Finance Committee

In addition to the statutory committees, the college has the following Non-statutory committees.

**Non-statutory committees**

* Purchase Committee
* Disciplinary Committee
* Institutional Development Committee
* Students Affair Committee
* Library Committee
* Grievance Committee
* Anti-Sexual Harassment Committee

The above committees are functioning in order to facilitate the successful implementation of autonomy. Each of the committees conducts its meetings and the minutes are recorded.

**6.2.4 Give a broad description of the quality improvement strategies of the institution for each of the following**

**- Teaching and Learning**

**- Research & Development**

**- Community Engagement**

**- Human Resource Management**

**- Industry Interaction**

**Teaching and learning**

* Teachers and students are encouraged to use modern teaching aides, Wi-fi facility to students and teachers at different locations of the college and hostel.
* Most of the class rooms have the teaching aid facility and for special lectures small and big size air-conditioned auditoriums are available.
* By implementing outcome based learning approach.
* By holding periodic workshops and training programme to new teachers on pedagogy and to the experienced teachers on advanced pedagogy.
* Consistent efforts have been made to design curriculum on student learning outcome.
* Efforts have been taken to make teacher centric learning to student centric
* learning.
* Digital library, Delnet facilities are provided, large number of online journals are subscribed.

**Research and development**

* Teachers are given relief from heavy work load/or leave is granted to pursue higher study/research.
* Students are given opportunity to pursue research through the undergraduate research projects.
* Five departments of the college are PTU recognized PG research centers.
* Six departments have AICTE, DST etc. sponsored research projects
* etc.
* Teachers are given seed grants for carrying out research activities

**Community engagement**

* Periodic blood donation camps in the college, NSS camps in villages.
* Van-Mahotsava, Earth day etc. are celebrated is celebrated and local community is involved in all such activities.
* The institute has been recognized as Vocational Education Provider for imparting training to village youth in soft skills, Mechanic, Electrician and other vocational streams.

**Human resource planning and development**

* The Institution has faculty and Non teaching staff as per requirement specified by Statutory bodies.
* Institution deputes faculty members for higher studies and also encourages faculty to register for Ph D program in the Institution by extending the Institute facilities.
* For teaching staff at the entry level orientation programs on Pedagogy are
* Arranged.
* Department wise faculty development programs are conducted. Faculties are encouraged to attend short term program/ workshops/FDP conducted by other Institutions.
* Technical supporting staff are encouraged to under go skills upgradation.
* Non technical supporting staff are given training in Computer Operation.

**Industry interaction**

* The institute has dedicated Industry Institute Interaction Cell (IIIC). It has been given the responsibillity of industry institute collaboration. Under its leadership, one faculty from each department takes the initiative in contacting industries for talks, visits, demonstrations and lectures.
* A database of core industries with respect to each department has been developed and brochure has been prepared giving out the details of the department’s achievements, strengths, expertise, research potentiality and academic outputs is given to industries to enhance industry institute interaction.
* Large number of students through placement department and through the

department’s contact goes through summer internship in core industries during vacation.

* Placement department arranges periodic lectures on soft skills and skills required for employment in industry.
* Curriculum in computer science engineering for some courses has been designed as per the requirements of INFOSYS

**6.2.5 How does the Head of the institution ensure that adequate information (from feedback and personal contacts etc.) is available to the top management and the stake holders, to review the activities of the institution?**

* Director ensures that adequate information (from feedback and personal contacts etc.) to review the activities of the institution through:
* Meeting with HODs weekly
* Collecting Feedback from students periodically.
* Taking feedback and suggestions from Parents on periodical basis.
* Continuous process of counseling and mentoring mechanism by faculty coordinators.
* Periodical meetings with Faculty and Staff members.
* Alumni association recommendations to enhance the academic excellence.
* The website, face book update on routine basis help all stakeholders to understand the overall activities of the institute.

**6.2.6 How does the management encourage and support involvement of the staff in improving the effectiveness and efficiency of the institutional processes?**

The Management is always encouraging and supporting the involvement of the staff in improving the institutional process. The management, through the Director, involves the staff members in various activities and decision making process related to the curricular, extra-curricular and administrative development of the college.

The staff members involve themselves through various committees such as Admission Committee, Anti-ragging Committee, Sports Committee, Time table committee, library committee, Industry Institution Interaction Cell etc. The representatives of each committee are free to give suggestions and opinions during the meetings with the Management. These suggestions are taken in to consideration before making any decisions.

**6.2.7 Enumerate the resolutions made by management council in the last year and the status of implementation of such resolutions.**

Following table below shows some of the resolutions & implementation status of major decisions taken during BOG meetings:

| **Sr** | **Resolution** | **Implementation Status** |
| --- | --- | --- |
| 1 | Improved participation in Faculty development Programs/Conferences | Faculty is encouraged to participate in faculty development programs / conferences. More than 60 faculty members have participated in one or more than one faculty development programmes over the last one year. Further more than 20 in house faculty development programmes/ trainning have been conducted in last one and half year |
| 2 | Conduct of International Conferences | The institute has already conducted one international conference on 08-09, August 2014, one national conference on 05-06 September 2014. Another international conference has been proposed on 30-31, October 2014. |
| 3 | Increased intake in B.Tech ME and CE branches. | The institute has increased intake in B.Tech in Mechanical Engineering from 120 to 180 and in Civil \engineering from 60 to 120 for the session 2014-15. |
| 4 | New M.Tech Programme in Mechanical Engg. | New M.Tech Course in Mechanical Engg. has been approved and has been started from 2014-15. |
| 5 | Emergent Civil work like girls hostel, new academic block, boys hostel, computer centre and library block | One academic block and one girl hostel have been newly constructed and possession has been taken. One boys hostel is under construction. The design of computer center and library block has been finalized. The project will be implemented through Publics Works Department (PWD). |
| 6 | Commencement of Skill Development Programs | The training and placement cell of the institute is running soft skill classes in collaboration with M/s SKIDT for the last one and a half year. The classes are meant for students in 5th semester onwards. Besides it has been made mandatory for non-teaching technical and non-technical staff to undergo computer training. |
| 7 | Commencement of remedial Development Programs | The remedial classes are conducted on a continual basis for first year to improve transition rate. The transition rate for 2012-13 batch is 34.2% where as the transition rate for 2013-14 batch is 45%. The marked improvement in transition rate is there due to remedial classes. For second year onwards the remedial classes are conducted in some identified subjects with large no of reappears. Every semester the result is thoroughly analyzed and students are encouraged to participate in the remedial classes. |

**6.2.8 Does the affiliating university make a provision for according the status of autonomy to an affiliated institute? If ‘yes’, what are the efforts made by the institution in obtaining autonomy?**

Yes, provision is made by PTU (affiliating university) to accord the status of autonomy to its affiliated institutions. College has already applied for autonomous status to UGC. The inspection visit from UGC is pending.

**6.2.9 How does the institution ensure that grievances / complaints are promptly attended to and resolved effectively? Is there a mechanism to analyze the nature of grievances for promoting better stakeholder relationship?**

College constituted various committees for Grievances redressal

* Grievance Committee
* Anti Sexual Harassment Committee
* Students Affair Committee

The institute has well defined grievance redressal procedure. Prompt and effective disposal of grievances of various stakeholders are being done. College constituted grievance committee with faculty as members and institute Registrar as chairman. The committee thoroughly discusses the grievances and suggests the solutions for redressing the grievance to institute Director. The institute Director reviews the suggestions and initiates suitable actions. If there is a need to redress the issue in BOG, the college takes up the issue as an agenda point in BOG meeting. The college has a women cell as well which caters to the grievances and other needs of girl students.

**6.2.10 During the last four years, had there been any instances of court cases filed by and against the institute? Provide details on the issues and decisions of the courts on these?**

* 1. Mr Jagdeep singh Magat vs Director, SBSSTC, FZR civil writ petition no. 4154 of 2012 in process at Punjab and Haryana High Court.
  2. ii) Mr Raj Kumar vs Director, SBSSTC, FZR civil writ petition no. 12481 of 2013 in process at Punjab and Haryana High Court.
  3. iii) Mr Ravi Kant Grover vs Director, SBSSTC, FZR case no no. CA-155, 18-11-2013 in process at Additional District Judge, Firozpur.
  4. iv) Mr Baldev Singh vs Director, SBSSTC, FZR case no no. CA-8/14 in process at Additional District Judge, Firozpur.
  5. Mr Gurmeet Singh vs Director SBSSTC, FZR Case No 269, 2012 in process at The District Consumer Disputes Readdressal Forum, Firozepur
  6. Mr Sukh Singh vs Director SBSSTC, FZR Case No 164, 2012 in process at The District Consumer Disputes Readdressal Forum, Firozepur.
  7. Mr Inderdeep Singh vs Director SBSSTC, FZR Case No 2261, 2012 in process at The District Consumer Disputes Readdressal Forum, Firozepur.
  8. Ms Banisha Gupta vs Director SBSSTC, FZR Case No 25/27, 2013 in process at The District Consumer Disputes Readdressal Forum, Firozepur.
  9. Ms Priaya Goyal vs Director SBSSTC, FZR Case No 25/27, 2013 at The District Consumer Disputes Readdressal Forum, Firozepur. The decion was held against the college.

**6.2.11 Does the institution have mechanism for analyzing student feedback on institutional performance? If ‘yes’, what was the outcome and response of the institution to such an effort?**

Yes, the institution has a mechanism for analyzing student feedback on institutional performance. A continuous assessment/ feedback system is incorporated by covering following aspects linking various levels.

**Student-Faculty Level:**

* Coverage of the Subject Material Specified in the syllabus.
* Preparation & Organization of the Lecture.
* Presentation and Communication Skills.
* Planning of Tutorials and Quality of Tutorial Assignments.
* Uniformity in Pace of Teaching during the Semester.

Apart from above Alumni feedback and exit survey from the students are collected. Accordingly action plan initiated to rectify the areas where the institution seems to be weak.

**6.3 Faculty Empowerment Strategies**

**6.3.1 What are the efforts made by the institution to enhance the professional of its teaching and non-teaching staff?**

* For teaching staff Faculty Improvement Programmes are conducted and teachers are encouraged to participate in FIP programmes conducted by the college and other colleges/universities.
* For the non teaching staff, computer trainings are held regularly. The non-teaching technical staff members are encouraged to enroll for higher studies.
* Many faculty have been granted leave with full salary to pursue M.Tech or Ph.D programmes.
* Faculty have been given the opportunity to register for Ph.D programme within and outside the college.
* For newly appointed faculty, training programmes and workshops are conducted for pedagogy in teaching methods.
* Faculty is encouraged to take active participation in faculty development programmes, conferences, seminars/workshops by paying the registration fee, TA/DA etc.
* Institute providing Laptops for faculty.
* Institute assists & encourage faculty for availing membership of national, international & professional bodies.
* It motivates & guides faculty for research and development by providing seed money, digital library and research equipments and labs.

**6.3.2 What are the strategies adopted by the institution for faculty empowerment through training, retraining and motivating the employees for the roles and responsibility they perform?**

* Training new Faculty on instructional design & delivery by the experts from NITTTR, Chandigarh and faculty from premium institutions before the commencement of academic Year.
* Training faculty on emerging technologies and also on real time problems in industry by eminent external faculty from industry and institution by organizing guest lectures and seminars
* Deputing faculty to refresher courses by external subject experts.
* Formulation of various committees with faculty as coordinator / member with proper allocation of work, assigning responsibility and grant of adequate authority and autonomy.
* Faculty are entitled to be sponsored for training programmes, paper presentations, attending seminars, workshops, quality improvement programmes etc.
* Besides better working environment conducive to teaching learning processes, other benefits like PF and incentives for both better performances as well for acquiring higher educational qualification has made the college to have higher retention ratio.

**6.3.3 Provide details on the performance appraisal system of the staff to evaluate and ensure that information on multiple activities is appropriately captured and considered for better appraisal.**

The Performance of the faculty is analyzed through the details provided by them in the self appraisal form every year. The performance of the faculty is assessed basing on various parameters such as

* Examination results on the lines of pass percentage, relative position with respect to other affiliated college of the university, scores of students etc..
* Student feed back
* Involvement in co-curricular and extra-curricular activities
* Responsibilities taken in the department
* Publications and research work etc.

The performance of each faculty is reviewed by the administration and the areas of improvement are suggested.

**6.3.4 What is the outcome of the review of the performance appraisal reports by the management and the major decisions taken? How are they communicated to the appropriate stakeholders?**

From the student feedback on faculty, if any gross anomalies are observed, HOD discusses the issues with the faculty and gives the advise with strategies to improve. If improvement is not observed, the faculty is asked to seek the employment elsewhere.

The outcomes of the performance appraisal will reflect in the annual increment, incentives and the promotion of the faculty. They are communicated through annual increment order and promotion orders.

**6.3.5 What are the welfare schemes available for teaching and non-teaching staff? What percentage of staff have availed the benefit of such schemes in last four years?**

* PF benefits and gratuity scheme
* Concession on fees for the children of the employees of the college studying in the same institute
* Rent free accommodation
* Reimbursement of medical expenses
* 15 casual leaves for male staff and 20 casual leaves for female staff every year.
* Maternity leave with full pay for six months for two times
* Study leave with full salary with 25% (BP +GP)allowance .
* Sabbatical Leave to undertake study or research or other academic pursuits for the objective of increasing their proficiency and usefulness to the institution on higher education system.
* Grain loan and free uniform to class IV employees
* Soft loan to class IV employees for celebrating festivals
* Earned Leave (E.L) of one for 30 days actual service and 1/3 of vacation

period.

* Medical leave of 20 half pay leaves per year subject to a maximum of 180

cumulative half pay medical leaves.

100% of the faculty and staff are availing the benefits.

**6.3.6 What are the measures taken by institution for attracting and retaining eminent faculty?**

The college creates an excellent working environment for the effective teaching learning processes, research and development and works in a transparent manner. The work culture in the institute helps in attracting and retaining good faculty. Some salient measures are

* On campus accommodation
* UGC-AICTE scale of pay
* TA/DA for attending conferences/seminars/workshops
* Support for patenting
* Support for obtaining research grants.
* Reduced workload for devoting time for research and writing grant proposals.
* Provident Fund & Gratuity
* Canteen, ATM & Reprographic facility
* Dress & soft loan for class IV employees.
* Moreover, almost all eligible staff members have taken advantage of these schemes.

**6.4 Financial Management and Resource Mobilization**

**6.4.1 What is the institutional mechanism to monitor effective and efficient use of available financial resources?**

The Institution has well defined mechanism to monitor effective and efficient use of available resources. College obtains proposals from concerned departments in an academic year under three different heads of account i.e., capital budget, maintenance budget and developmental budget. After assessing the projected income for an academic year, college allocates budget to each department and institution with minute details. After the allocation, the departments can avail the financial resources within the sanctioned limit.

Purchases will be made with the recommendations of duly constituted purchase committee in the department upto a single purchase of Rs 1 Lakh. For purchases beyond 1 lakh, Central stores gets the purchases done after due approval from institute Director.

**6.4.2 What are the institutional mechanisms for internal and external audit? When was the last audit done and what are the major audit objections? Provide the details on compliance.**

**Internal**

The College has a finance committee Comprising of following members:

|  |  |  |
| --- | --- | --- |
| 1. | Secretary to the Government of Punjab, Department of Technical Education | Chairman |
| 2. | Secretary to the Government of Punjab, Department of Finance or his representative (not below the rank of Joint Secretary) | Member |
| 3. | Director, Department of Technical Education and Industrial Training, Punjab | Member |
| 4. | Director, Shaheed Bhagat Singh State Technical Campus, Ferozepur | Member |
| 5. | Registrar, Shaheed Bhagat Singh State Technical Campus, Ferozepur | Member-Secretary |

Every financial year budget proposals including Income & Expenditure details being submitted by the college to the finance committee for their consideration and approval. The proposals are made on different heads such as laboratory equipment, library expenses, salary payments, building infrastructure and other maintenance expenses. The director of the institute periodically conducts meetings with department heads and section heads to review the action taken, and utilization of resources to improve the system performance.

**External:**

The annual balance sheet of the college is audited by an authorized audit team. The last audit was done in May 2014. There are no major audit objections.

**6.4.3 What are the major sources of institutional receipts / funding and how is the deficit managed? Provide audited income and expenditure statement of academic and administrative activities of the previous four years and reserve fund / corpus available with institutions, if any.**

The College is an autonomous institution established by Punjab Government, affiliated to PTU, we get the income mainly from tuition fee receipts, as fixed by Government of Punjab. The expenditure mainly consists of salary payments, laboratory equipments, Library, infrastructure & building infrastructures and maintenance. For meeting the expenses if there is any deficit of funds, the same is met by the funding from the State Government. The audited income and expenditure statements of previous four years are attached below:







The institute has established four funds and the size of four funds as on 31-03-2014 is follows:

Corpus fund 186058-00

Faculty Development Fund 187277-00

Equipment Replacement Fund 186058-00

Maintenance Fund 202009-00

**6.4.4 Give details on the efforts made by the institutions in securing additional funding and utilization of the same (if any).**

The institution encourages faculty to apply for various schemes available under different government organizations such as AICTE, UGC, CSIR etc. Some of the projects, which institute got from AICTE/MHRD are mentioned as under:

| **Sr No** | **Year** | **Name of Project** | **Name of Funding Agency** | **Total grant Received** | **Status** |
| --- | --- | --- | --- | --- | --- |
| 1 | 2011-12 | MODROBS  8024/RIFD/MOD-263 | AICTE | 1100000-00 | Completed |
| 2 | 2011-12 | MODROBS  8024/RIFD/MOD-262 | AICTE | 1000000 | Completed |
| 3 | 2011-12 | MODROBS  8024/RIFD/MOD-261 | AICTE | 850000 | Completed |
| 4 | 2011-12 | MODROBS  8024/RIFD/MOD-261 | AICTE | 150000 | Completed |
| 5 | 2011-12 | RPS  8023/RID/RPS-49 | AICTE | 225000 | Completed |
| 6 | 2011-12 | RPS  8023/RID/RPS-93 | AICTE | 750000 | Completed |
| 7 | 2011-12 | Seminar grant | AICTE | 100000 | Completed |
| 8 | 2011-12 | Staff Development Programme | AICTE | 200000 | Completed |
| 9 | 2012-13 | TEQIP-II | MHRD | 100000000-00 | In process |
|  |  |  |  |  |  |

**6.5 Internal Quality Assurance System (IQAS)**

**6.5.1 Internal Quality Assurance Cell (IQAC)**

**a. Has the institute established an Internal Quality Assurance Cell (IQAC)? If ‘yes’, what is institutional policy with regard to quality assurance and how has it contributed in institutionalizing the quality assurance process?**

The institution has established an Internal Quality Assurance Cell (IQAC) on 15.01.2014. The Composition of the cell is as under

Institute Director/

Associate Director: Chairman

Convener & coordinator Dean Academic

Members All HODs, Registrar

Two External members At the level of Associate Professor and above

The policies of the institutional quality assurance cell are:

1. To equip the students of the college with the knowledge in the latest trends in their respective fields and to prepare them to meet the requirements of the job market.
2. To focus on augmenting the placement of the final year students in reputed companies through effective campus placement drives.
3. To organize more number of guest lectures by eminent resource persons/subject experts in all the departments to enhance the academic input.
4. To continue the schemes of Remedial Coaching classes for academically weak students.
5. To conduct Faculty Development Programmes (FDP‟s) periodically to update their knowledge.
6. To record all the major and minor achievements of all the Departments and publish them in newsletters in clusters.
7. To improve the communicative skills of the students.
8. To upgrade the industry-institution relationship by developing linkages with professional/research bodies
9. To conduct a social audit and to enhance the status of the institution in the society.
10. To inculcate the spirit of service mentality among student volunteers through NSS activities
11. To give adequate counseling and guidance to students in their personal/academic/professional fronts through the Counseling and Guidance cell.
12. To encourage more number of students to participate in sports by

providing them with required training, coaching and guidance.

Based on its policies, IQAC will ensure:

1. Fixing quality parameters for various academic and administrative activities.
2. Monitoring the organization of class work and related academic activities.
3. Conducting Internal Quality Audits periodically to verify the effectiveness of measures taken in reaching the quality parameters.
4. Documenting various programs / academic activities leading to quality improvement and reviewing their effectiveness in quality improvement/ sustenance

b. How many decisions of the IQAC have been approved by the management /authorities for implementation and how many of them were actually implemented?

The institute governing body strongly believes in quality education as mentioned in the mission and vision statements and thus approves and supports the activities of IQAC and endorses the decisions taken by the body as mentioned in the Academic Calendar.

c. Does the IQAC have external members on its committee? If so, mention any significant contribution made by them.

The following two are external members of the committee:

They contribute in establishment of research facilities, establishment of problem solving group of students, motivating faculty for research, evaluating the faculty and guiding them for improvement in teaching learning.

d. How do students and alumni contribute to the effective functioning of the IQAC?

The students put forward good suggestions for the enhancement of quality in the functioning of the college. The alumni of the institution meet the faculties of their department as and when they visit the institution. Some of them meet the students of their department and share their experience and job market expectation. The alumni of the institution is considered as an asset and every suggestion is given due respect and implemented by the college for betterment of students. It is proposed to make alumni stronger by ensuring their active participation in IQAC in coming years.

e. How does IQAC communicate and engage staff from different constituents of the institution?

The faculty and non-teaching staff representatives have been nominated as members of the general body of IQAC. They are attending and effectively participating in the general body meeting of IQAC. The IQAC elicits the views of the staff members of the institution who proposes the conduct of various curricular, co-curricular and extra-curricular events and the proposals are subsequently discussed and finalized in IQAC meetings. The chairman, IQAC also regularly interacts with the staff members through circulars and periodic meetings to ensure their effective participation in all the activities of the body.

**6.5.2 Does the institute have an integrated framework for quality assurance of the academic and administrative activities? If ‘yes’ give details on operationalisations.**

The vision of the institution clearly brings out the intended quality of education the institution wishes to provide. The same is also translated into academic policies and communicated to both academic and administrative staff. The academic quality is ensured by focused teaching-learning process and effective feedback system. The institution has built in an integrated support system where the administrative staff contributes substantially to achieve academic quality.

The academic functions and related administrative matters have been vastly streamlined ever since the functional committees are formed. The feedback on faculties obtained from students has helped analyze and evaluated the performance of the faculties. The evaluation has led to remedial measures to improve the performance of teachers and to encourage teachers who have been efficient and full of initiative. The self-appraisal mechanism started for teachers, together with the student feedback has been very useful for the Director to arrive at an overall performance report of the faculty. These evaluator mechanisms are taken into consideration for faculty promotions. Arrangements of faculty development programmes, skill development programmes for students and non teaching staff, continuous up-gradation of laboratory facilities, library and office automation, enhancement of student support services (Placement, career guidance, counselling, mentorship, encouragement to culture and sports activities)

**6.5.3 Does the institution provide training to its staff for effective implementation of the Quality Assurance procedures?**

The institute organizes orientation program to imbibe the culture of quality among the staff members. It is also supported in and through faculty development programs. It helps faculty members in understanding and to implement academic policies effectively. Moreover, the college has adopted a participative decision making process wherein the faculties‟ contribute effectively towards the development of the institution. The institute authorities monitors every activity both academic and non academic through faculty and staff meetings to ensure highest quality in services provided.

Apart from this, the institute encourages and sponsors faculty in participating in various orientation and refresher programmes, workshops, conferences, seminars etc., organized by reputed institutions like and IIT‟s, NIT‟s, PTU amongst others.

**6.5.4 Does the institution undertake Academic Audit or other external review of the academic provisions? If ‘yes’, how are the outcomes used to improve the institutional activities?**

Academic audit is a regular feature in the College for continuous monitoring of the students. Over and above the college, the affiliating university regularly monitors the performance regularly through:

Academic audit is conducted on the following:

1. Course files and lab manuals
2. Monthly students attendance
3. Internal Exam Marks
4. Semester Internal Marks
5. Semester and exam marks

vi) Semester wise performance and comparison with other University

affiliated colleges.

vii) Faculty development programmes and their impact on teaching –

learning process.

viii) Training programmes to students.

ix) Co-curricular / extra-curricular activities.

Based on the report of internal academic audit, the courses of actions /measures being followed are reviewed and suitable remedial measures ar taken.

As measure of our good academic practices, the institution has applied for accreditation by NBA, New Delhi. The same has conducted the visit and the result is awaited.

**6.5.5 How are the internal quality assurance mechanisms aligned with the requirements of the relevant external quality assurance agencies / regulatory authorities?**

* Teaching quality is monitored by HODs, senior faculty on regular basis. Based on those findings corrective actions are implemented.
* University regularity visit Institute in each academic year and carries the inspection of the academic processes.
* Feedbacks are invited from all the stakeholders (Students, guardians, alumni, experts).
* Institute uses the guidelines of professional bodies for quality education, for development of its internal quality assurance mechanisms.
* The institute quality assurance mechanism are developed using the guidelines of quality assurance agencies like NAAC, NBA
* The institute studies the quality assurance norms of university, NAAC, NBA and develops the quality assurance mechanism for teaching, learning, research, industry institute interaction, higher studies, good citizens and academic audits.

**6.5.6 What institutional mechanisms are in place to continuously review the teaching learning process? Give details of its structure, methodologies of operations and outcome?**

The following points are considered for formulating the policies on Teaching:

* The inter semester and end semester feedbacks on all the subjects are taken from the students in every semester.
* The feedback is analyzed and evaluated on the scale of 100 and every teacher is provided with a copy of feedback for making necessary corrections. Further, teachers are counseled by the head of the department, Dean Academic Affairs, Principal and Director if required.
* The administration also receives the feedback by interacting with a selected group of students from each class.
* The institution has implemented lesson plan system, which helps all the faculty members to plan the delivery of the curriculum. The management and the Principal are regularly monitoring the planned delivery of curriculum and its execution status.
* The quality of course material and assignments prepared by the faculty are assessed internally and suitable suggestions for enriching the course materials and assignments are given by the senior faculty of the departments.
* New / creative assignments are prepared every year in all the subjects.
* Performance and self-appraisals are taken from the faculty at the end of every academic year and their performance is evaluated. Based on the evaluation report faculty are counseled.

**6.5.7 How does the institution communicate its quality assurance policies, mechanisms and outcomes to the various internal and external stakeholders?**

* Institute has the regular liaison with internal and external stakeholders.
* Institute discusses the quality assurance policies with the members of student council and gets their views in this regards.
* Each department of the institute regularly organizes parent meet and conveys the quality assurance policies to parents.
* It invites the parents for co-curricular and cultural activity & discusses the quality assurance policies.
* Institute has Industry Institute Interaction Cell. It conducts the meet and shares the information.

**CRITERIAVII:INNOVATIONSANDBESTPRACTICES**

**7.1 EnvironmentConsciousness**

**7.1.1 Does the Institute conduct a Green Audit of its campus and facilities?**

Yes, Eco-Friendly group of the college conducts different activities for **Environment Consciousness among the students and staff including debates and competations for the same.**

**7.1.2 What are the initiative staken by the college to make the campus eco-friendly?**

**∗ Energy conservation** Yes

**∗** **Use of renewable energy** Yes

**∗ Water harvesting**  Yes

**∗ Check damconstruction** N.A

**∗ Efforts for Carbonneutrality** Yes

**∗ Plantation**  Yes

**∗ Hazardous waste management**  Yes

**∗ e-waste management**  Yes

**7.2 Innovations**

**7.2.1 Give details of innovations introduced during the last four years which have created a positive impact on the functioning of the college.**

* College has a huge and pleasant green cover. Different types of plants are available all over the campus making it a pollution free campus.
* Campus is well maintained
* A beautiful park spreading over 15 Acre of land is maintained in the institute for evening walk.
* Whole campus is provided Wi-FI facilities.
* All faculty and staff members have been given dedicated internet facility in their offices and houses.
* Wi-Fi and internet facilities are given in all Hostels
* A lush green and clean campus spreading over 100 Acres have shopping complex, bank, post office, Milk booth, Nescafe etc etc.

**7.3 BestPractices**

**7.3.1 Elaborate on any two best practices in the given format at page no.98, which have contributed to the achievement of the Institutional Objectives and/or contributed ot he Quality improvement of the coreactivities of the college.**

**Presentation of BestPractice**

**1. Title of the Practice:**

**“Promotion of Research among Faculty & Innovative Student Projects”**

**2. Objectives of the Practice**

**What are the objectives/ intended outcomes of this ‘‘best practice’’ and what are the underlying principles or concepts of this practice (in about 100 words)?**

The main focus of the higher education in India is to promote research. In accordance with the growing need for the upgradation of the faculty and the students in higher education, enormous efforts are taken by the management of the college to inculcate research culture in the staff and the students to arouse curiosity, develop objectivity and improve critical thinking. It ensures continuous professional growth on the part of teachers and of problem identifying, systematic planning, careful implementing and solution finding abilities on the part of students.

* To keep pace with the latest advancements in respective discipline and thus to update the intellectual calibre of the faculty
* To encourage the faculty to pursue Ph.D. and to acquire more PhD guides/supervisors to have more research scholars.
* To motivate the faculty to apply for the major and minor research projects
* To promote the departments to have more research labs
* To collaborate with other institutions, universities and industries in India and abroad
* To arrange for interface among the institutions, industries and the public to take up research projects of relevance.
* To encourage the faculty and the students to organize and present research papers in the national / international seminars / conferences / workshops
* To publish quality research articles in reputed journals, edit study materials for the prescribed syllabus and author books of high originality
* To provide seed money for research activities

**3. The Context**

**What are the contextual features or challenging issues that needed to be addressed in designing and implementing this practice (in about 150 words)?**

In order to keep pace with the latest development the periodic and constant updating of the subject material is very essential. The teaching faculty and staff of the institute are highly conscious of quality enhancement and quality sustenance at par with the progress of technology. The knowledge generation and effective dissemination are the two major focus of our quality research. The congeal research ambience has been created through strengthening infrastructure facilities, motivating faculty and staff members and guiding them to acquire grants from the funding agencies to launch new research projects and assignments - pursuing Ph.D., taking up minor or major research projects, guiding research scholars and publishing research papers and books.

**Challenging issues to be addressed while designing and implementing the practice**

Following are some of the basic challenges that needed to be addressed while implementing the practice. Requiring sound knowledge of technology development

* Creation of awareness on the need for research to update the knowledge of the students and the staff at international standards
* Passive attitude of the faculty and staff towards the research.
* Creating an interest in research in students through individual or group research projects as part of their syllabus
* Analyzing and addressing the needs of the society through JACEP and submitting reports based on their field research
* Forming linkage with the industries and research centres and collaborating with them for the research projects of staff and students.
* The great demand of the rural based students for the attention of the staff to cope with their studies

**4. The Practice**

**Describe the practice and its uniqueness in the context of Indian higher education. What were the constraints/ limitations, if any, faced (in about 400 words)?**

The institution provides opportunities to the faculty and staff for improvement in qualification and skill level. A number of channels like study leave and QIP are in place for doing higher studies M.Tech or Ph.D. on regular basis. The institute rules also allows Part Time registration for a research degree. The institute also motivates is faculty for Post Doc Studies in India or abroad. Special emphasis is given on the sponsored projects (major and minor) of various funding agencies.

A Research Monitoring Committee is place under the Chairmanship of the Dear (PG Studies & Research) for promoting research culture among the staff and students in the campus. It sets the target for achievement in the action plan presented and submitted in the Board of Governors meeting every year. The attainment of the target is reviewed every year.

**Support facilities for research**

* Special consideration in the form of leave is given to the staff who are on the verge of completing their research work.
* The visits to various Universities and libraries for data collection have enriched their research.
* The management extends co-operation to the staff to go abroad for paper presentation and send proposals to UGC to avail travel grant.
* Steps have been taken to have a linkage with Liverpool Hope University, U.K. to promote teaching, learning and research.
* The management has decided to give financial assistance to the self-finance faculty who make research publications in the journals with high impact factor.
* Rewards of teachers are based on their achievements in research.

**Constraints faced in the pursuit of research**

* Owing to time constraint and interface, the gap between academia and industries is not adequately bridged to fulfill the needs of industries.
* The students can be further motivated to explore new areas of research and procure funds from various funding agencies.
* Students can be provided hands-on activity based research in the industries to address challenges faced in the job market.
* Extension Programme can focus on neighbourhood oriented research to solve real life problems.
* Interdisciplinary and socio- economic developmental research can be encouraged among the students and the teachers.
* Ph.D. holders can be motivated to publicize their research in the form of books.

**5. Evidence of Success**

**Provide evidence of success such as performance against targets and benchmarks, review results. What do these results indicate? Describe in about 200 words.**

The achievements in the field of research are the main indicators of excellence in research practiced at the institute.

* In last three years 11. faculty members have successfully completed PhD degrees from IITs or some renowned universities and ….. completed their M.Tech in respective areas.
* A good number of faculty have availed the opportunities for presenting papers in National ( ) and International ( ) Conferences.
* Nine faculty members have been sent abroad for attending the International events.
* Director and Chairman Board of Governors visited top raking Universities of USA to see the best practices being followed there.
* Expert from PUM of Netherlands visited the campus to give a thrust to academic activities specially research and industrial collaboration.
* A team of two senior faculty members was sent to Netherlands in connection with the ongoing international interaction and exchange programme inked wit PUM of Netherlands.
* Nine sponsored research projects with a funding of nearly ….. croresare undertaken during the assessment period. The institute was also granted the TEQIP project of MHRD/World Bank for Rs. 10.00 crores.
* 27 faculty members are University-approved supervisors for guiding M.Tech. and Ph.D. scholars.
* Final year UG and PG students undertake mandatory and funded, individual and group projects.
* New Project and Research labs have been established in departments to give a thrust to research activities
* E-journals, DELNET and Internet laboratory are added in the library.
* In addition to the central Computer Centre facility, CAD/CAM and Computational laboratories have been established in 05 departments.
* Separate Computer labs have been established in all the hostels.
* Publication of research papers in reputed journals with high impact factor evinces the keen interest of the faculty in research. The number of publication is continuously increasing
* A number of teachers have published articles and chapters in research books.
* .Competitive grants have been sanctioned to a number of faculty members of the institute by DST or AICTE for research as well as laboratory modernization projects.
* The proceedings of the three conferences organized in the institute are published in the form of books.
* Research is nurtured at the college by strengthening infrastructure facilities in the laboratories and the library.

**6. Problems Encountered and Resources Required**

**Please identify the problems encountered and resources required to implement the practice (in about 150 words).**

* More incentives can be given to the teachers by the Government for research activities - publications of books and papers in reputed journals.
* More State of Art Research Intensive Workshops should be organized for faculty to attract them to the Quality Research and participation in Sponsored Research Projects/activities.
* Various technical sessions and seminars can be organized for the young teachers and UG/PG students to create awareness of the requirements for research - preparation of proposals, various funding agencies etc.
* General grants can be provided by UGC under special schemes to strengthen research resources at the college in the form of books and equipments.
* International collaboration and co-operation can be sought to make research more qualitative.
* A research journal can be published by maintaining the standard of the articles and making the peer review process strict.
* Academic audit can formulate quality parameters to ascertain the quality of research of the staff and the students in each department.
* Vacancies can be filled up by the Government to acquire powerful human resource with research acumen to develop research activities.

***7. Any additional information regarding Innovations and Best Practices, which the College would like to include.***

* The institute is situated at a distance of only 11 KM from the Indo Pak Boarder and caters to the backward boarder belt of the state of Punjab
* The institute is one of the leading destination for technical and professional education in North West part of the country.
* It has a 100 Acre green lush campus on NH-95, 3 km away from Firozpur Cantt with idea ambience for learning.
* The institute is devoted for the Holistic development for all the students, faculty and staff members.

**8. Contact Details**

**Name of the Principal:** Dr. T. S.Sidhu

**Name of the Institution:** Shaheed Bhagat Sing State technical Campus Ferozepur

**City:** Ferozepur **PinCode**: 152004

**Accredited Status:** Applied for

**Work Phone:** 01632-242138 **Fax:** 01632-242138

**Website:** sbsstc.ac.in **E-mail:** tdsidhu@rediffmail.com

**Mobile:** 8288012001

**Evaluative Report of the Department of Civil Engineering**

The self-evaluation of every department may be provided separately in about 3-4 pages avoiding the repetition data

1. Name of the Department: **Civil Engineering**

2. Year of the establishment: **2011**

3. Name of programmes/course offered (UG, PG,M Phill, Ph.D., integrated Masters; Integrated Ph.D etc): **UG (B.Tech. Civil Engineering)**

4 Name of interdisciplinary courses and the departments/units involved

|  |  |  |
| --- | --- | --- |
| **Sr. No.** | **Course** | **Department** |
|  | **Mathematics-III**  **(BTAM-301)** | **Department of Applied Sciences and Humanities** |

5 Annual/semester/choice based credit system (programme wise)

**Annual Based Credit System**

|  |  |  |
| --- | --- | --- |
| **Sr. No.** | **Year** | **Credit** |
| **1** | **First Year** | **50** |
| **2** | **Second Year** | **59** |
| **3** | **Third Year** | **61** |
| **4** | **Fourth Year** | **58** |

6 Participation of the department in the courses offered by other departments: **NIL**

7 Courses in collaboration with other universities, industries, foreign instutions, etc: **NIL**

8 Details of courses/programmes discontinued (if any) with reason: **NIL**

9 Number of teaching posts

|  |  |  |
| --- | --- | --- |
|  | **Sanctioned** | **Filled** |
| **Professor** | **01** | **NIL** |
| **Associate Professor** | **02** | **NIL** |
| **Asst. Professor** | **11** | **07** |

10 Faculty profile with name, qualification, designation, specialization, (D.sc/D. Litt./Ph. D/ M. Phil .etc,)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Name** | **Qualification** | **Designation** | **Specialization** | **No. of years of experience** | **No. of Ph. D**  **Students guided for last 4 year** |
| **Er. Parampreet Kaur** | **M. Tech.** | **Asst. Professor** | **Geotechnical Engg.** | **03Years**  **08months** | **NIL** |
| **Er. Bohar singh** | **M. Tech.** | **Asst. Professor** | **Geotechnical Engg.** | **12 Years** | **NIL** |
| **Er. Dapinderdeep Singh** | **M. Engg.** | **Asst. Professor** | **Environmental Engg.** | **02 Years** | **NIL** |
| **Er. Gurpreet Singh** | **M. Engg.** | **Asst. Professor** | **Highway Engg.** | **02 Years** | **NIL** |
| **Er.Gurtej Singh** | **M. Tech.** | **Asst. Professor** | **Soil Mechanics & Foundation Engg.** | **18 Years** | **NIL** |
| **Er. Satish Bansal** | **B.Sc.**  **(Civil Engg.)** | **Associate Professor** | **-** | **32 Years** | **NIL** |
| **Er, Rajdeep Singh** | **B. Tech. (Civil Engg.)** | **Asst. Professor** | **-** | **NIL** | **NIL** |

11. List of senior visiting Faculty: **NIL**

12. Percentage of Lectures Delivered and practical classes handled (programme wise) by temporary faculty

|  |  |  |
| --- | --- | --- |
| **Sr. No.** | **Lectures Delivered by temporary faculty** | **Practical classes handled by temporary faculty** |
| **1** | **25.97%** | **10.50%** |

13 Student-teacher Ratio (programme Wise): **24.83**

14 Number of academic support staff (technical) and administrative staff; sanctioned and filled

|  |  |  |
| --- | --- | --- |
|  | **Sanctioned** | **Filled** |
| **Lab-Superintendent** | **01** | **01** |
| **Lab-Technician** |  | **02** |
| **Lab. Attendent** |  | **01** |
| **Clerk** | **01** | **01** |
| **Peon** | **01** | **01** |

15 Qualifications of teaching faculty with Dsc/D.litt/Ph.D/MPhil/PG**:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Name** | **Qualification** | **Designation** | **Specialization** |
| **Er. Parampreet Kaur** | **M. Tech.** | **Asst. Professor** | **Geotechnical Engg.** |
| **Er. Bohar singh** | **M. Tech.** | **Asst. Professor** | **Geotechnical Engg.** |
| **Er. Dapinderdeep Singh** | **M. Engg.** | **Asst. Professor** | **Environmental Engg.** |
| **Er. Gurpreet Singh** | **M. Engg.** | **Asst. Professor** | **Highway Engg.** |
| **Er.Gurtej Singh** | **M. Tech.** | **Asst. Professor** | **Soil Mechanics & Foundation Engg.** |

16. Number of faculty with ongoing projects from (a) National (b) International (c) International funding agencies and grant received**: NIL**

17. Departmental Projects funded by DST-FSIT, UGC, DBT, ICSSR, etc. and total grants received**: NIL**

18. Research Centre/facility recognized by the University: **NIL**

19. Publications:

* Publications per faculty: **NIL**
* Number of papers published in peer reviewed journals (national/international ) by faculty and students: **01**
* Number of publications listed in International Database (e.g. Web of Science, Scoups, Humanities International Complete, Dare Database-International Social Sciences Directory, EBSCO host etc.): **NIL**
* Monographs: **NIL**
* Chapter in Books: **NIL**
* Books Edited: **NIL**
* Books with ISBN/ISSN numbers with details of publishers: **NIL**
* Citation Index: **NIL**
* SNIP: **NIL**
* SJR: **NIL**
* Impact factor: **NIL**
* H-index: **NIL**

20. Areas of Consultancy and Income generated

|  |  |  |
| --- | --- | --- |
| **Sr. No.** | **Areas of Consultancy** | **Income generated** |
| **1** | **Geotechnical Engg., Structure Design, Transportation Engg., Environmental Engg., Surveying** | **Rs. 84,997/-** |

21. Faculty as members in**:**

a) National Committees: **NIL**

b) International Committees: **NIL**

c) Editorial Boards: **NIL**

22. Student Projects

a) Percentage of students who have done in-house projects including inter departmental/programme: **NIL**

b) Percentage of students placed for projects in organizations outside the institution i.e. in Research laboratories/Industry/other agencies: **NIL**

23. Awards/Recognitions received by faculty and students**: NIL**

24. List of eminent academicians and scientists/visitors to the department

|  |  |  |  |
| --- | --- | --- | --- |
| **Sr. No.** | **Eminent academicians /visitor to the department** | **Designation** | **Date of Visit** |
| **1** | **Dr. H.S. Rai** | **Dean Consultancy, GNDEC, Ludhiana** | **08/10/2013** |
| **2** | **Dr. Sanjiv Aggarwal** | **H.O.D., deptt. of Civil Engg., PTUGZS Campus, Bathinda** | **09/04/2014** |

25. Seminars/Conferences/Workshops organized & the source of funding

a) National: **NIL**

b) International: **NIL**

26. Student profile programme/course wise:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Name of the Course/Programme (refer question no. 4)** | **Applications received** | **Selected** | **Enrolled** | | **Pass percentage** |
| **Male** | **female** |
| **B.Tech. Civil Engineering -1st year** | **63** | **63** | **61** | **02** | **34.13** |
| **B.Tech. Civil Engineering -2nd year** | **76** | **76** | **71** | **05** | **11.8** |
| **B.Tech. Civil Engineering-3rd year** | **73** | **73** | **64** | **09** | **10.9** |

27. Diversity of Students

|  |  |  |  |
| --- | --- | --- | --- |
| **Name of the Course** | **% age of students from the same state** | **% age of students from other states** | **% age of students from abroad** |
| **B.Tech. Civil Engg.** | **81.60%** | **18.39%** | **0** |

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, defence services etc.: **NIL**

29. Student Progression

|  |  |
| --- | --- |
| **Student progression** | **Against % enrolled** |
| **UG to PG** | **NIL** |
| **PG to M. Phil** | **NIL** |
| **PG to Ph. D.** | **NIL** |
| **Ph. D. To Post-Doctoral** | **NIL** |
| **Employed**   * **Campus selection** * **Other than campus recruitment** | **NIL** |
| **Entrepreneurship/Self-employment** | **NIL** |

30. Details of Infrastructural facilities

a) Library**: 25 no. of Books are present in Departmental Library**

b) Internet facilities for Staff & Students

|  |  |  |  |
| --- | --- | --- | --- |
| **Sr. No.** | **Name of Faculty/Staff/Place** | **Item** | **Quantity** |
| **1** | **Er. Parampreet kaur** | **(i) HP Desktop i5 computer with LCD , 500 GB HDD, RAM 4GB**  **(ii) Laserjet printer M1136 MFP**  **(iii) Laptop SONY i5 processor, HDD 500GB, RAM 4 GB** | **01**  **01**  **01** |
| **2** | **Er. Bohar Singh** | **(i) HP Desktop i5 computer with LCD , 500 GB HDD, RAM 4GB**  **(ii)Laptop SONY i3 processor, HDD 500GB, RAM 4 GB** | **01**  **01** |
| **3** | **Er. Dapinder Deep singh** | **Laptop SONY i3 processor, HDD 500GB, RAM 4 GB** | **01** |
| **4** | **Er. Gurpreet Singh** | **(i) HP Desktop i5 computer with LCD , 500 GB HDD, RAM 4GB**  **(ii) Laser printer**  **(iii)Laptop SONY i3 processor, HDD 500GB, RAM 4 GB** | **01**  **01**  **01** |
| **5** | **Sh. Jasvinder Singh** | **HP Desktop i5 computer with LCD , 500 GB HDD, RAM 4GB** | **01** |
| **6** | **Sh. Gurmeet Singh** | **LENOVO desktop computer core 2 dual processor, HDD 500GB, RAM 2 GB** | **01** |
| **7** | **Deptt office (Room no C-311)** | **HP Desktop i5 computer with LCD , 500 GB HDD, RAM 4GB** | **01** |
| **8.** | **CAD Lab. ( Room No. C-319)** | **HP Desktop i5 computers with LCDs , 500 GB HDD, RAM 4GB** | **45** |

c) Class rooms with ICT facility: **01 (Room No. C-313)**

d) Laboratories

**i) List of Equipments of Geotechnical Engineering:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Sr. No.** | **Name of Equipment** | **Quantity** | **cost** |
| 1 | Universal Automatic Compactor | 01 | 172825.00 |
| 2 | Lab Permeability Apparatus | 01 | 47027.00 |
| 3 | Unconfined Compression Testing Machine | 01 | 114974.00 |
| 4 | Soil Cone Pentrometer | 01 | 49102.00 |
| 5 | Standard Proctor Test | 01 | 15901.00 |
| 6 | Lab Vane Shear Apparatus | 01 | 25943.00 |
| 7 | Relative Density Apparatus | 01 | 173877.00 |
| 8 | Modified Proctor Test | 01 | 26901.00 |
| 9 | Direct shear test Apparatus | 01 | 148176.00 |
| 10 | Dynamic cone penetration test equipment apparatus | 01 | 65327.00 |
| 11 | Triaxial Test Apparatus | 01 | 797875.00 |
| 12 | Standard Penetration Test Equipment | 01 set ( 8 nos.) | 99500.00 |
| 13 | Consolidation test Apparatus | 01 | 166069.00 |
| 14 | Plastic Limit Apparatus | 03 Nos. | 4742.00 |
| 15 | Core Cutter | 04 nos. | 11088.00 |
| 16 | Liquid Limit Device (Hand Operated) | 03 | 14313.00 |
| 17 | Electronic Balance  (i) Capacity 300gm x 0.01gm  (ii) Capacity 3kg x 0.1gm  (iii) Capacity 10kg x 0.5gm  (iv) Capacity 20kg x 1gm | 04 nos. | 33376.00 |
| 18 | Electric Oven | 01 | 21146.00 |
| 19 | Sieve Set (Brass Frame) | 35 | 32247.00 |
| 20 | Automatics sieve shaker | 01 | 49725.00 |

1. **List of Equipments of Transportation Engg. Lab.**

|  |  |  |  |
| --- | --- | --- | --- |
| **Sr. No.** | **Name of Equipment** | **Quantity** | **cost** |
| 1 | Digital Benkelman Beam Test Equipment | 01 | 49876.00 |
| 2 | Impact Value Test Equipment | 01 | 39938.00 |
| 3 | Universal Penetrometer | 01 | 40620.00 |
| 4 | Digital Ductility Apparatus | 01 | 130737.00 |
| 5 | California Bearing ration machine | 01 | 143064.00 |
| 6 | Ring and Ball Apparatus | 01 | 28775.00 |
| 7 | Abrasion Value Test Equipment | 01 | 147417.00 |
| 8 | Bitumen Extractor | 01 | 47989.00 |
| 9 | Length Gauge | 01 | 892.00 |
| 10 | Sieve Set G.I. Frame | 01 set ( 39no) | 40093.00 |
| 11 | Thickness Gauge | (02 no.) | 892.00 |
| 12 | Flash and Fire Point | 01 | 6515.00 |
| 13 | Marshall Stability Test Apparatus | 01 set (16 nos.) | 309060.00 |

1. **List of Equipments of Strength of Materials Lab.**

|  |  |  |  |
| --- | --- | --- | --- |
| **Sr. No.** | **Name of Equipment** | **Quantity** | **Cost** |
| 1 | Rockwell Hardness Test | 01 | 17508.00 |
| 2 | Impact Testing Machine | 01 | 37794.00 |
| 3 | Spring Testing Machine | 01 | 33200.00 |
| 4 | Torsion testing machine | 01 | 85000.00 |
| 5 | Universal Testing Machine | 01 | 325000.00 |

1. **List of Equipments of Surveying Lab.**

|  |  |  |  |
| --- | --- | --- | --- |
| **Sr. No.** | **Name of Equipment** | **Quantity** | **cost** |
| 1 | Fibre Tap 20 m long | 06 | 1368.00 |
| 2 | Fibre Tap 30 m long | 06 | 1860.00 |
| 3 | Steel tap 30 m Long | 02 | 770.00 |
| 4 | Survey Chain 20 m | 06 | 2310.00 |
| 5 | Survey chain 30 m | 06 | 2820.00 |
| 6 | Ranging Rod ( Diameter 25mm, length 2 m long) | 25 | 2950.00 |
| 7 | Ranging Rod (Diameter 25mm, length 3 m long) | 10 | 1580.00 |
| 8 | Pedometer | 02 | 1990.00 |
| 9 | Survey Compass | 01 | 1145.00 |
| 10 | Pocket Altimeter | 01 | 2600.00 |
| 11 | Telescopic Alidade with wooden Box | 02 no. | 5980.00 |
| 12 | Steel Arrow | 60 | 540.00 |
| 13 | Nautical Sextant with wooden box | 01 | 2450.00 |
| 14 | Binocular expert | 01 | 1690.00 |
| 15 | Stop Watch | 02 | 396.00 |
| 16 | Box sextant with box | 01 | 890.00 |
| 17 | Steel band ( 30 m long) | 01 | 970.00 |
| 18 | Steel band ( 20 m long) | 01 | 890.00 |
| 19 | Dumpy level (12 inches) | 05 | 17375.00 |
| 20 | Lilting level ( 9 inches) | 05 | 19950.00 |
| 21 | Plain Table ( 23 inches x32 inches x 22mm ) | 05 | 12475.00 |
| 22 | Prismatic compass | 05 | 5375.00 |
| 23 | Telescopic levelling staff (04 m long) | 02 | 1190.00 |
| 24 | Telescopic levelling staff | 02 | 1860.00 |
| 25 | Cross Staff | 02 | 304.00 |
| 26 | Prim Square | 02 | 690.00 |
| 27 | Octagonal Cross Staff | 02 | 690.00 |
| 28 | Hand level | 02 | 290.00 |
| 29 | Tangent Clinometers | 04 | 2780.00 |
| 30 | Ghat Tracer | 02 | 1980.00 |
| 31 | Survey Umbrella (2 m dia.) | 05 | 5950.00 |
| 32 | Plum Bob | 05 | 590.00 |
| 33 | Tripod Signal | 05 | 3700.00 |
| 34 | Vernier Transit Theodolite (20sec. Accuracy) with stand | 05 | 47250.00 |
| 35 | Wooden pegs | 50 | 1200.00 |
| 36 | Plumbing Fork | 10 | 1450.00 |
| 37 | Abney label | 02 | 980.00 |
| 38 | Auto level with stand | 05 | 29400.00 |
| 39 | Sight vane brass | 06 | 1500.00 |
| 40 | Sprit level | 06 | 888.00 |
| 41 | Offset rod label 2mm long | 05 | 690.00 |
| 42 | Offset rod label 3mm long | 05 | 790.00 |
| 43 | Clinometers | 02 | 496.00 |
| 44 | Magnetic compass | 05 | 695.00 |
| 45 | Pantagraph Complete Set | 02 | 1980.00 |
| 46 | Line ranger | 05 | 1700.00 |
| 47 | Total Station | 01 set | 498750.00 |
| 48 | Digital Planimeter | 02 | 60000.00 |
| 49 | Electronic Theodolite | 02 | 60000.00 |

**v) List of Equipments of Concrete Technology Lab.**

|  |  |  |  |
| --- | --- | --- | --- |
| **Sr. No.** | **Name of Equipment** | **Quantity** | **cost** |
| 1 | Compression Testing machine | 01 | 398188.00 |
| 2 | Vibrating machine | 01 | 65465.00 |
| 3 | Vibrating Table | 01 | 78451.00 |
| 4 | Vee Bee apparatus | 01 | 54951.00 |
| 5 | Cement Moulds | 30 | 84690.00 |
| 6 | Concrete Moulds | 30 | 29370.00 |
| 7 | Flexure testing machine | 01 | 158681.00 |
| 8 | Flow Table | 01 | 145535.00 |
| 9 | Automatic motor mixing machine | 01 | 102192.00 |
| 10 | Concrete mixture Pan type | 01 | 168092.00 |
| 11 | Vacat apparatus | 04 | 12600.00 |
| 12 | Compaction Factor Apparatus | 01 | 16574.00 |
| 13 | Slump Test Apparatus | 04 | 6858.00 |
| 14 | Ultra Sonic Pulse Velocity Test Apparatus | 01 | 281250.00 |
| 15 | Density Basket | 02 | 1806.00 |

1. **List of Equipments of Structural Analysis Lab.**

|  |  |  |  |
| --- | --- | --- | --- |
| **Sr. No.** | **Name of Equipment** | **Quantity** | **Cost (Rs.)** |
| 1 | Apparatus for Clark Maxwell Reciprocal Theorem | 01 | 14888.00 |
| 2 | Apparatus to verify plastic properties of Different Beam | 01 | 20888.00 |
| 3 | Continuous Beam Apparatus | 01 | 20888.00 |
| 4 | Behavior of Colum and struts apparatus | 01 | 14888.00 |
| 5 | Three hinged Arch Apparatus | 01 | 20999.00 |
| 6 | Two Hinged Arch apparatus | 01 | 22888.00 |
| 7 | Deflections Truss apparatus | 01 | 23888.00 |
| 8 | Redundant Joint Apparatus | 01 | 17999.00 |
| 9 | Curved member Apparatus | 01 | 16888.00 |
| 10 | Unsymmetrical Bending apparatus | 01 | 22999.00 |

1. **List of Equipments of CAD Lab.**

|  |  |  |  |
| --- | --- | --- | --- |
| **Sr. No.** | **Name of Equipment** | **Quantity** | **Cost (Rs.)** |
| 1 | UPS 5kVA with batteries | 04 | 263580.00 |
| 2 | UPS 1kVA with battries | 01 | 17490.85 |
| 3 | Computer chairs | 50 | 210197.00 |
| 4 | HP Desktop computers | 50 | 1877085.00 |

31. Number of students receiving financial assistance from college, university, government or other agencies: **33**

32. Details on student enrichment programmes (special lecture/workshop/seminar) with external expert

|  |  |
| --- | --- |
| **Sr. No.** | **Expert Lecture On Topic** |
| **1** | **Building Materials by Er. Gagandeep Singh from ACC Limited on 23/08/13.** |
| **2** | **Successful carrier in Civil Engineering by Dr. H.S. Rai on 08/10/13.** |
| **3** | **Concrete Mix Design by Er. Navinder Tommar from Ambuja Cements Limited on 11/10/13** |
| **4** | **Prestressd Concrete by Er. Gagandeep Singh from ACC Limited on 30/01/14** |
| **5** | **Earthquake resestance structure by Er. Jaswinder Singh Ambuja Cement Limited on 13/02/14.** |
| **6** | **Road Transport System of India By Dr. Sanjiv Aggarwal on 23/07/2014** |
| **7** | **Construction technologies for roads By Dr. Sanjiv Aggarwal on 09/04/2014** |

33. Teaching methods adopted to improve student learning: **Use of Black-board and chalks and Power Point Presentations is made to deliver the course contents. Assignment Sheets as well as Tutorial Sheets are given to students for problem solving.**

34. Participation in Institutional social responsibility (ISR) and extension activities: **N.C.C., N.S.S. activities like Blood-donation, Tree-plantation, Election duty.**

35. SWOC analysis of the department and future plans:

**1. STRENGTH:**

* Department is based on a unique philosophy of education which combines the material with the spiritual and offers students to develop themselves as fully integrated individuals.
* The department can boast of near perfect academic discipline. There has been no disruption in the Academic Calendar due to disturbances that institutions of higher learning generally experience in India.
* The department has a dedicated faculty and highly efficient support staff, who are available on the campus round the clock and take care of all aspects of the campus, the academic and the personal.
* The students of the department try to dedicate themselves fully to the acquisition of knowledge and character building exercise. This explains the existence of a healthy campus life with no incidence of ragging or any activity that is detrimental to their academic pursuits.
* The infrastructural support offered by the department to students can be compared with the best in this part of the country. The teacher-student ratio, which is perhaps unparalleled in the country, makes it possible for teachers to successfully address individual need of the students.
* The department is considered a reputed centre of higher learning and this makes it possible to get a great deal of support and co-operation from other institutions of higher learning as well as industrial houses, formally and informally.
* The NSS and NCC volunteers of the department have been very active and have participated with great enthusiasm in activities like blood donation, first aid training, health awareness survey etc.

1. **WEAKNESSES:**
2. The socio-economic background of many of the students (some of them are first and second generation learners) admitted in the department is responsible for poor language competence (both in their mother tongue as well as English). This leads to an unsatisfactory level of comprehension and communication.
3. The department has not been able to enter into either faculty exchange or student exchange programmes due to structural and governmental policy limitations. The inability to implement the credit transfer systems (CTS) has also hindered the student exchange programme.

**3. OPPORTUNITIES :**

* The level of academic excellence which the Department has acquired makes it possible for our students to get entry into institutes of global repute. The College has to devise mechanisms for ranslating this potential into a reality.
* The new learning of the age requires greater proficiency in soft skills among students. Department has the necessary technical and infrastructural resources to take this to a higher level.
* The vision of the department makes it imperative to engage in socially relevant programmes such as organising voluntary blood donation camps, AIDS awareness programmes and disaster management skills. The College with its resources and networking can ensure students’ greater participation in these activities.

**4. CHALLENGES:**

* As the number of new people are not interested in teaching jobs, the college/department has to play a proactive role to fill up the teaching vacancies. This is a daunting task as the absence of suitable candidates is sure to put many obstacles in the process. The other challenge involves getting permission from the Government to fill up the vacant posts of the administrative support staff.
* Retaining the unique character of the College in an increasingly consumerist society poses a great challenge.

**EvaluativeReport**

**of**

**Department of Chemical Engineering**

The Self-evaluation of every department may be provided separately in about

3-4pages, avoiding the repetition of the data.

1. Nameofthedepartment: **Department of Chemical Engineering**

2. YearofEstablishment: **1996**

3. Namesof Programmes/Courses offered(UG,PG,M.Phil.,Ph.D., Integrated

Masters;Integrated Ph.D.,etc.): **UG in Chemical Engineering**

4. NamesofInterdisciplinarycoursesandthedepartments/units involved:

|  |  |  |
| --- | --- | --- |
| Course | Course code | Dept./units involved |
| Engineering Chemistry | **BTCH 101** | Dept. of App. Sci. & Hum. |
| Engineering Mathematics-I | **BTAM101** | Dept. of App. Sci. & Hum. |
| Elements of Mechanical Engineering | **BTME101** | Dept. of Mech. Engg. |
| Fundamentals of Computer Programming and IT | **BTCS101** | Dept. of Comp. Sci. & Engg. |
| Environmental Science | **EVSC 101** | Dept. of App. Sci. & Hum. |
| Engineering Chemistry Laboratory | **BTCH102** | Dept. of App. Sci. & Hum. |
| Engineering Drawing | **BTME102** | Dept. of Mech. Engg. |
| Fundamentals of Computer Programming and IT Laboratory | **BTCS102** | Dept. of Comp. Sci. & Engg. |
| Engineering Computer Graphics Laboratory | **BTME103** | Dept. of Mech. Engg. |
| Engineering Physics | **BTPH101** | Dept. of App. Sci. & Hum. |
| Engineering Mathematics-II | **BTAM102** | Dept. of App. Sci. & Hum. |
| Communicative English | **BTHU101** | Dept. of App. Sci. & Hum. |
| Basic Electrical and Electronics Engineering | **BTEE 101** | Dept. of Electrical Engg.& Electronics & Comm. Engg. |
| Human Values and Professional Ethics | **HVPE101** | Dept. of App. Sci. & Hum. |
| Engineering Physics Laboratory | **BTPH102** | Dept. of App. Sci. & Hum. |
| Communication English Laboratory | **BTHU102** | Dept. of App. Sci. & Hum. |
| Basic Electrical and Electronics Engineering Laboratory | **BTEE102** | Dept. of Electrical Engg. |
| Manufacturing Practice | **BTMP101** | Central Workshop |
| Strength of Materials | **BTCH-304** | Dept. of Mech. Engg. | |
| Strength of Materials Lab | **BTCH-306** | Dept. of Mech. Engg. | |
| Institutional Practical Training (At the end of 1st year) | **BTCH-309** | Central Workshop | | |
| Engineering Mathematics-III | **BTAM-201** | Dept. of App. Sci. & Hum. | | |
| Human Resource Management | **HU-251** | Dept. of App. Sci. & Hum. | | |
| Total Quality Management | **ME-251** | Dept. of Mech. Engg. | | |

5. Annual/semester/choicebasedcreditsystem(programmewise):

The Dept. of Chemical Engg. has adopted credit system as per the revised course curriculum Scheme-2011 of Chemical Engg. of Punjab Technical University, Jalandhar.

The latest curriculum Scheme-2011 is available on PTU website on link http://www.ptu.ac.in/userfiles/file/syllabus/engg/syllabus\_revised\_july\_2013.pdf

6. Participation of the department in the courses offered by other departments:

As per requirement of other departments, the department has been sharing teaching load from time to time.

|  |  |
| --- | --- |
| Course | Course code |
| Environmental Science | **EVSC 101** |

7. Courses in collaboration with other universities, industries, foreign institutions, etc.

Nil

8. Detailsofcourses/programmes discontinued(ifany)withreasons

**Not Applicable**

9. Number of Teaching posts

|  |  |  |
| --- | --- | --- |
|  | **Sanctioned** | **Filled** |
| Professors | 1 | 1 |
| Associate Professors | 2 | 5 |
| Asst. Professors | 6 | 2 |

NAAC for Quality and Excellence in Higher Education

10. Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt.

/Ph.D./M.Phil.etc.,)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Name | Qualification | Designation | Specialization | No.of Years of Experience | No.ofPh.D.  Students  guidedforthe  last4years |
| Dr. Rajeev Garg | B.E. (Chem Engg.), PU Chandigarh, 1992  M.E. (Chem Engg.), PU Chandigarh, 1995  Ph.D. (Chem Engg.), IIT Delhi, 2009 | Associate Professor | Modeling and Simulation | 17 | 03 Students registered |
| Mrs. Balpreet Kaur | B. Tech. (Chem Engg), PTU Jalandhar, 1998  M.Tech. (Env. Sc Engg), PTU Jalandhar, 2010 | Associate Professor | Environmental Science | 16 | Nil |
| Mr. Rajiv Arora | B.Tech. (Chem & Bio), GNDU Amritsar, 1995  M.Tech. (Chem Engg.), PTU  Jalandhar, 2008  Pursuing PhD from Pu Chandigarh | Associate Professor | Modeling and Simulation | 14 | Nil |
| Mr. Pankaj Kalra | B.E. (Chem Engg.) PU Chandigarh, 1997  M.Tech. (Chem Engg.), PTU Jalandhar, 2008  Pursuing PhD from PTU Jalandhar | Associate Professor | Modeling and Simulation | 15 | Nil |
| Mr. Surinder Singh | B.E. (Chem Engg.), PU Chandigarh, 1990  Pursuing Mtech. (chemical Engg. )from PTU Jalandhar | Assistant Professor | -- | 15 | Nil |
| Mr. Raj Kumar | B.E. (Chem Engg.), PU Chandigarh, 1991  M.Tech. (Env. Sc Engg), PTU Jalandhar, 2011 | Associate Professor | Environmental Science | 15 | Nil |
| Mr. Amit Arora | B.Tech. (Chem Engg), PTU Jalandhar, 2000  M.Tech. (Env. Sc Engg), PTU Jalandhar, 2011  Pursuing PhD from IIT Roorkee | Assistant Professor | Environmental Science | 13 | Nil |

11. List of senior visiting faculty:

Nil

12. Percent age of lectures delivered and practical classes handled (programmewise)

By temporary faculty:

In the current semester = (02/09) \*100 = 22%

13. Student-Teacher Ratio (programmewise)

STR = (x + y + z) / N1

Where x = Number of students in 2nd year of the program

y = Number of students in 3rd year of the program

z = Number of students in 4th year of the program

N1 = Total Number Faculty Members in the program (by considering fractional load)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Year** | **x** | **y** | **z** | **x+y+z** | **N1** | **STR** |
| CAYm2(2011-12) | **37** | **35** | **22** | **94** | **7** | **13.43** |
| CAYm1(2012-13) | **35** | **37** | **35** | **107** | **8** | **13.38** |
| CAY (2013-14) | **35** | **35** | **37** | **107** | **8** | **13.38** |

14. Number of academic support staff (technical) and administrative staff; sanctioned andfilled

|  |  |  |
| --- | --- | --- |
|  | **Sanctioned** | **Filled** |
| Lab Supdt. |  | 1 |
| Junior technician |  | 1 |
| Lab Attendant |  | 1 |
| Clerk |  | 1 (contract staff) |
| Peon |  | 1 |

15. Qualifications of teaching faculty with DSc/D.Litt/Ph.D/MPhil/PG.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Qualification | Designation | Specialization | No.ofYears of Experience |
| Dr. Rajeev Garg | B.E. (Chem Engg.), PU Chandigarh, 1992  M.E. (Chem Engg.), PU Chandigarh, 1995  Ph.D. (Chem Engg.), IIT Delhi, 2009 | Associate Professor | Modeling and Simulation | 17 |
| Mrs. Balpreet Kaur | B. Tech. (Chem Engg), PTU Jalandhar, 1998  M.Tech. (Env. Sc Engg), PTU Jalandhar, 2010 | Associate Professor | Environmental Science | 16 |
| Mr. Rajiv Arora | B.Tech. (Chem & Bio), GNDU Amritsar, 1995  M.Tech. (Chem Engg.), PTU  Jalandhar, 2008  Pursuing PhD from Pu Chandigarh | Associate Professor | Modeling and Simulation | 14 |
| Mr. Pankaj Kalra | B.E. (Chem Engg.) PU Chandigarh, 1997  M.Tech. (Chem Engg.), PTU Jalandhar, 2008  Pursuing PhD from PTU Jalandhar | Associate Professor | Modeling and Simulation | 15 |
| Mr. Surinder Singh | B.E. (Chem Engg.), PU Chandigarh, 1990  Pursuing Mtech. (Chemical Engg.) from PTU Jalandhar | Assistant Professor | -- | 15 |
| Mr. Raj Kumar | B.E. (Chem Engg.), PU Chandigarh, 1991  M.Tech. (Env. Sc Engg), PTU Jalandhar, 2011 | Associate Professor | Environmental Science | 15 |
| Mr. Amit Arora | B.Tech. (Chem Engg), PTU Jalandhar, 2000  M.Tech. (Env. Sc Engg), PTU Jalandhar, 2011  Pursuing PhD from IIT Roorkee | Assistant Professor | Environmental Science | 13 |

16. Number of faculty with on going projects from a)National b)International funding agencies and grants received:

--NIL--

17. Departmental projects funded by DST-FIST;UGC, DBT, ICSSR,etc.andtotal grants received:

Department has been sanctioned MODROBS projects by AICTE from time to time as per details below:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **S.No.** | **Project Title** | **File No. and Date** | **Coordinators** | **Amount** | **Period** | **Status** |
| 1 | Modernization of Computational Lab | AICTE-MODROB 12/AICTE/RIFD/MOD(Policy-2)-99/2012-13 dated 5.02.2013 | Dr Rajeev Kumar Garg | 5.75 Lac | 2013-2014 | In Progress |
| 2 | Modernization of Heat Transfer Lab | AICTE-MODROB 8024/RIFD/MOD-264/2011-12 dated 21.12.2011 | Dr Rajeev Kumar Garg | 1.5 Lac | 2011-2012 | Completed |
| 3 | Modernization of Mass Transfer Lab | AICTE-MODROB 8023/RID/BOR/MOD-97/2005-06 dated 17.02.2006 | Dr Pushpa Paul | 10 Lac | 2005-2006 | Completed |
| 4 | Waste Management, Effluent Treatment and Recycling | AICTE-RPS 8021/RID/NPROJ/TAP-17/2002-03 dated 21.12.2002 | Dr Pushpa Paul Mr Raj Kumar | 20 Lac | 2002-2003 | - |

18. Research Centre/ facility recognized by the University: NA

19. Publications:

∗ a) Publicationperfaculty

|  |  |  |  |
| --- | --- | --- | --- |
| Name | No. of Journal publications | No. of National Conference publications (last three years) | No. of International Conference publications (last three years) |
| Dr. Rajeev Garg | 5 Journal +1 book chapter | 08 | 07 |
| Mrs. Balpreet Kaur | 3 Journal | 05 | 01 |
| Mr. Rajiv Arora | 2 Journal | 06 | 08 |
| Mr. Pankaj Kalra | 4 Journal +1 book chapter | 02 | 01 |
| Mr. Surinder Singh | -- | -- | -- |
| Mr. Raj Kumar | -- | -- | 03 |
| Mr. Amit Arora | 1 Journal +1 book chapter | 18 | 15 |

∗ Number of papers published in peer review edjournals(national/

international)by faculty and students

|  |  |  |
| --- | --- | --- |
| Name | List of Publications | Name of Journal |
| Dr. Rajeev Garg | Garg R.K., Krishnan V.V., Srivastava V.K., Prediction of Concentration and Temperature Profiles for Non Isothermal Ethane Thermal Cracking in a Pipe Reactor | Korean J. Chem. Engg.  23(4), 531-539, 2006 |
| Garg R.K., Srivastava V.K., Modeling and Simulation of Non Isothermal Thermal Cracker | J. Chem. Engg. of Japan  39(10), 1057-4 2006 |
| Garg R.K., Vashishta, M., Srivastava V.K., A Modeling Approach to Reaction of Non Newtonian Fluids in Tubular Reactor | Polymer-Plastics Technology and Engg |
| Kalra P., Garg R. K., Grover N. K., Structural Properties of Anode Composite Precursor of a Solid Oxide Fuel Cell Prepared via Combustion Synthesis Route | Asian Journal of Engineering and Applied Technology  ISSN 2249-068X Vol-1 No. 2 July-Dec 2012 |
| Kalra P., Garg R. K., Kumar A. , Singh A.P., Electrical characterization of NiO-CGO composites- SOFC anode precursor- prepared via combustion synthesis route | International Journal of Innovative research in Science, Engineering & Technology, Vol-3, Issue 5, May 2014. |
| Mrs. Balpreet Kaur | Rajoriya S., Kaur B. , Saharan V. K. 3, Kinetics and Isotherm on the Adsorption of Zn (II) from Aqueous Solutions by Natural Bio-sorbents | International journal of engineering sciences & research technology, ISSN : 2277-9655 |
| Singh Harjinder, Kaur Balpreet, Pandey O.P., Reduction of Wolframite Ore with Activated Charcoal to Produce Nano Tungsten Carbide | INROADS- An International Journal of Jaipur National University Year : 2014, Volume : 3, Issue : 1s2 First page : **( 276)** Last page : **( 279)**  Print ISSN : 2277-4904. Online ISSN : 2277-4912. |
| Rajoriya S., Kaur B. , Adsorptive Removal of Zinc from Waste Water by Natural Biiosorbents | International Journal of Engineering Science Invention ISSN (Online): 2319 – 6734, ISSN (Print): 2319 – 6726 Volume 3 Issue 6, June 2014 PP.60-80 |
| Mr. Rajiv Arora | Grover N. K., Arora R., Numerical Studies on Droplet Evaporation at High Ambient Temperature and Pressures | International Journal of Advances in Thermal Science & Engineering  Vol. 1 (2), 2010, 133-137 |
| Arora R., Kapoor V., Kumar V., Agnihotri S. Jaiswal M., Esterification of Free fatty acids in waste cooking oil by carbonaceous sulfated acid catalyst: optimization & kinetic study | International Journal of Engineering Research Science & Technology, Vol-3, No. 3, August 2014  ISSN 2319-5991 |
| Mr. Pankaj Kalra | Kalra P., Kumar A. , Singh A.P.,  Structural Properties of NiO-CGO Composites Precursor prepared via Combustion Synthesis Route | Asian Journal of Chemistry Vol. 21, No. 10 (2009), S157-161 |
| Kalra P., Garg R. K., Grover N. K., Structural Properties of Anode Composite Precursor of a Solid Oxide Fuel Cell Prepared via Combustion Synthesis Route | Asian Journal of Engineering and Applied Technology  ISSN 2249-068X Vol-1 No. 2 July-Dec 2012 |
| Kalra P., Garg R. K., Kumar A. , Singh A.P., Electrical characterization of NiO-CGO composites- SOFC anode precursor- prepared via combustion synthesis route | International Journal of Innovative research in Science, Engineering & Technology, Vol-3, Issue 5, May 2014. |
| Mr. Amit Arora | Nanotechnology and Its Applications in Drug Delivery: A Review | International Journal of Medicine and Molecular Medicine  ISSN:2046 1690 2012;3(1):WMC002867 |

∗ Number of publications list edin International Database (For Eg: Web of Science, Scopus, Humanities International Complete, Dare Database-International Social Sciences Directory, EBSCO host, etc.)

∗ Monographs

∗ ChapterinBooks

***Book Chapters***

* Pankaj Kalra, Rajeev Garg; Chapter titled "**Solid Oxide Fuel Cells- A Future Source of Power and Heat Generation**" in special edition of Material Science forum "**Engineering Applications of Nano-Science & Nano-Materials**", TransTech publications, edited by Rajesh Tayade and Ajay Bansal
* Navneet Sood, Rajeev Kumar Garg, M.K Jha and Amit Arora; Chapter titled "**Treatment of leachate by using natural adsorbents**" in **Recent Advances in Bioenergy Research Volume II** , © Sardar Swaran Singh National Institute of Renewable Energy, Kapurthala-2013, Electronic version published by SSS-NIRE edited by Sachin Kumar, S. K. Tyagi.

∗ BooksEdited: NIL

∗ Books with ISBN/ISSN numbers with details of publishers: Nil

∗ Citation Index

∗ SNIP

∗ SJR

∗ Impact factor

∗ h-index

20. Areas of consultancy and income generated:

Nil

21. Faculty as members in

a) Nationalcommittees b)InternationalCommittees c)Editorial

Boards….

|  |  |  |
| --- | --- | --- |
| Name | Commitee | Remarks |
| Dr. Rajeev Garg | Member Board of Studies Chemical Engg. PTU Jalandhar  Resource person in committee at NITTTR Chandigarh | Development of courses and curriculum for B. Tech and M. Tech at PTU, Jalandhar in Chemical Engg  Development of course curriculum for Diploma in Chemical Engg at NITTTR, Chandigarh |
| Mr. Rajiv Arora | Member Board of Studies Chemical Engg. PTU Jalandhar | Development of courses and curriculum for B. Tech and M. Tech. |

22. Studentprojects

1. Percent age of students who have done in-house projects including inter departmental/programme:

100% students of the 7th Sem. Chemical Engg. do in-house Projects as per the course-curriculum of Punjab Technical university.

List

1. Percentage of students placed for projects in organizations out side the institution i.e. in Research laboratories/Industry/ otheragencies:

100% students of the 8th Sem. Chemical Engg. are placed for projects in organizations outsidetheinstitutionduring their Six month Industrial training in Researchlaboratories/Industry/ otheragencies as per the course-curriculum of Punjab Technical university.

23. Awards/Recognitions received by faculty and students:

i). Varun Suri, Vikram kumar, Harpreet kaur; Students of Final Year under Ms. Balpreet Kaur won second prize in National conference on Recent Advances in Chemical and Environmental Studies(RACES-2012) 3 March, 2012 held at Multani Mal Modi college Patiala, for their paper titled “Variation in COD of Pulp And Paper mill Effluent on treatment with Bio Degradable Polymer”.

ii) Amit Kumar, Avinash Kumar, Shamsher Singh Rawat, Ishan Manchanda, Jaskaran Singh, Ramandeep under Ms. Balpreet Kaur won second prize in TECHNO OPUS 2014 held at SBSSTC Ferozepur for their paper titled “Removal and Recovery of Phosphorous from Waste Water by using Magnetite” based upon environmental pollution control.

24. Listofeminentacademiciansandscientists/visitorstothe department:

1. Dr. M.K Jha,

Prof. & Vice President IIChE

Department of Chemical Engg,

NIT Jalandhar

2. Dr. Vineet Kumar,

Associate Prof.,

Department of Chemical Engg,

IIT, Roorkee

25. Seminars/Conferences/Workshopsorganized&thesource of funding a) National:

One week Faculty Development Program titled “Recent Trends in Polymers, Composites & Their Engineering Applications” in collaboration with CIPET Amritsar from 16-20 September 2013 under TEQIP.

b) International

Nil

26. Student profile programme/course wise:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Nameofthe Course/programme** (refer question no. 4) | **Applications received** | **Selected#** | **Enrolled** | | **Pass percentage** |
| **\*M** | **\*F** |
| B.Tech. Chem. Engg. |  |  |  |  |  |
| Batch2010 admission | 37 | 37 | 26 | 11 | 26/36 = 72.2 |
| Batch2009 admission | 35 | 35 | 24 | 11 | 23/35 = 65.7 |
| Batch2008 admission | 22 | 22 | 12 | 10 | 14/22 = 63.6 |

\*M=Male \*F=Female # including LEET and Fee waiver students

27. Diversityof Students

|  |  |  |  |
| --- | --- | --- | --- |
| **Nameofthe**  **Course** | **%of students fromthe samestate** | **%ofstudents fromother States** | **%of students from abroad** |
| B.Tech. Chem. Engg. (all four years as on date) | 73.9 | 26.1 | Nil |
| Batch 2014 admission | 61.1 | 38.9 | Nil |
| Batch 2013 admission | 88.6 | 11.4 | Nil |
| Batch 2012 admission | 64.7 | 35.3 | Nil |
| Batch2011 admission | 75 | 25 | Nil |

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defence services, etc.?

29. Student progression

2010-2014 batch

|  |  |
| --- | --- |
| **Studentprogression** | **Against%enrolled** |
| UGtoPG | - |
| **Employed**  •Campusselection  •Other than campus recruitment | 01  01 |
| Entrepreneurship/Self-employment | -- |

2009-2013 batch

|  |  |
| --- | --- |
| **Student progression** | **Against % enrolled** |
| UG to PG | 03 |
| **Employed**  •Campusselection  •Other than campus recruitment | 01  08 |
| Entrepreneurship/Self-employment | 01 |

2008-2012 batch

|  |  |
| --- | --- |
| **Studentprogression** | **Against%enrolled** |
| UG to PG | - |
| **Employed**  •Campusselection  •Other than campus recruitment | 04  08 |
| Entrepreneurship/Self-employment | -- |

30. Details of Infrastructural facilities a) Library

Carpet area of library (in m2 ) 494

Reading space (in m2) 208

Number of seats in reading space 120

Number of users (issue book) per day 090

Number of users (reading space) per day 120

Timing: during working day, weekend, and vacation 9:00am to 5:00pm

Number of library staff 06

Number of library staff with a degree in library 04

Management

Computerisation for search, indexing, issue return No

Record Bar coding used No

Library services on Internet/Intranet INDEST or other Yes

similar membership archives

b) InternetfacilitiesforStaff&Students

Name of the Internet provider: BSNL,ferozepur

Available bandwidth: 34Mbps(1:1)

Access speed :

Availability of internet in an exclusive lab: YES

Availability in most computing labs : YES

Availability in department and other units : YES

Availability in facility rooms: YES

Institute’s own e-mail facility to facility / students. YES

Security/privacy to e-mail/internet users : YES

c) Class rooms with ICT facility: 01 No.

|  |  |  |
| --- | --- | --- |
| Name of class room | Exclusive/shared | Room No. |
| Computational Lab | Exclusive | C122 |
| Classroom | Shared | C214 |

d) Laboratories:

|  |  |  |  |
| --- | --- | --- | --- |
| **Curriculum Lab Description** | **Exclusive use/Shared?** | **Space (m2), Number of Students** | **Number of experiments** |
| Fluid Mechanics Lab | Shared | C121, 100, 30 | 12 |
| Mechanical Operations Lab | Exclusive | C122, 94, 30 | 08 |
| Heat Transfer Lab | Shared | C118, 190, 30 | 15 |
| Mass Transfer Lab | Exclusive | C125, 106, 30 | 11 |
| Chemical Reaction Engineering& Environmental Engineering Lab | Exclusive | C131, 106, 30 | 13 |
| Chemical Technology Lab | Shared | C128, 106, 30 | 08 |
| Computational Lab | Exclusive | C122, 106, 30 | Computational problem handling according to curriculum (approx. 20) |
| Process Dynamics, Instrumentation & Control Lab | Exclusive | C221, 92, 30 | 10 |

The following is the list of equipments in respective labs of dept. of chemical Engineering:

|  |  |
| --- | --- |
| **Name of Laboratory** | **Equipment/ Setup** |
| **Chemical Reaction Engineering & Environmental Engineering Lab.** | Continuous Stirred Tank Reactor |
| Isothermal Batch Reactor |
| Isothermal Plug Flow Reactor |
| Semi Batch Reactor |
| Cascade Continuous Stirred Tank Reactor |
| RTD Studies in Continuous Stirred Tank Reactor |
| RTD Studies in Packed Bed Reactor |
| COD Measuring Apparatus |
| pH Meter |
| DO Meter |
| TDS & Conductivity Meter |
| Refrigerator |
| BOD Incubator |
| High Volume Sampler |
| **Heat Transfer Lab** | Heat Transfer through lagged Pipe. |
| Emissivity Measurement Apparatus |
| Parallel/ Counter Flow Heat Exchanger |
| Heat Pipe Demonstrator |
| Critical Radius of Insulating material |
| Pin Fin in Natural & Forced Convection |
| Measurement of Thermal Conductivity by guarded hot plate method. |
| Vertical Condenser |
| Unsteady State Heat Transfer Apparatus |
| Finned Tube Heat Exchanger |
| Drop Wise- film wise condensation Apparatus |
| Shell & Tube Heat Exchanger |
| Double Effect Evaporator |
| Single Effect Evaporator (MODROB-AICTE) |
| Baby Boiler – Thermax 50kg/hr capacity |
| Open Pan Evaporator |
| **Mass Transfer Lab** | Rotary Drier |
| Batch Crystallizer |
| Sieve Tray/ Plate Tray Distillation Column |
| Liquid- Liquid Extraction Apparatus |
| Gaseous Diffusion Coefficient Apparatus |
| Natural Draft Tray Drier |
| Wetted Wall Column |
| HETP Apparatus |
| Rayleigh Equation Batch Distillation Apparatus with Abbe Refractrometer |
| Liquid Hold Up Packed Column set up |
| Fully Automated Binary Distillation Column (MODROB-AICTE) |
| **Fluid & Particle Mechanics Lab.- Mechanical Operations Lab** | Plate & Frame Filter Press |
| Fluidized Bed Apparatus |
| Cyclone Separator |
| Automatic Sieve Shaker |
| Sedimentation Apparatus |
| Stoke’s Law setup |
| Ball Mill |
| Jaw Crusher |
| Froth Floatation Setup |
| **Fluid & Particle Mechanics Lab.- Fluid Flow Lab** | Close Circuit variable Speed Centrifugal Pump |
| Gear Pump Test Rig |
| Flow Through non Circular Pipes Apparatus |
| Equivalent Length of Pipes & Fittings Apparatus |
| Apparatus for determination of losses in pipe bends , fittings& elbows |
| Flow through a V- Notch Apparatus |
| Orificemeter & Venturimeter setup |
| Friction losses in pipe setup |
| Bernoulli's theorem Apparatus |
| Pitot tube Apparatus |
| Sudden contraction and Enlargement friction loss Apparatus |
| Metacentric Height Apparatus |
| **Chemical Technology Lab** | Bomb Calorimeter |
| Weighing Balance Analytical |
| Digital Weighing Balance |
| Magnetic Stirrers |
| Electronic Weighing Balance |
| Muffle Furnace |
| Tensile Testing Machine for polymeric materials |
| Two Roll Mill |
| Injection Moulding Machine |
| Gas Chromatograph |
| Compression Moulding Machine |
| High Temperature Furnace |
| **Process Instrumentation Dynamics & Control Lab** | Cascade Level Flow Trainer |
| Pneumatic P-I Controller |
| Control Valve Characteristics setup |
| Shell & Tube Heat Exchanger ( Computerized ) |
| PLC trainer |
| Interacting Liquid Level Tank Dynamics setup |
| Liquid Level Tank Dynamics setup |
| Flow Control Trainer |
| Dynamics of Shell & Tube Heat Exchanger |
| Dead Weight Pressure Tester |
| UPS- 5KVA 01No. |
| Calibration of instruments |
| **Computational Lab** | Computer Systems P4 Lenovo Make 512 MB- Nos. 7  Computer Systems P4 Wipro Supergenious – Nos 5  Computer Systems i5 hp make Intel core TM – Nos. 10 |
| Printer Dot-Matrix 02 Nos.  Printer Laserjet 01 No. |
| UPS 5kVA- 02 Nos. |
| Software: MATLAB Version 7 - 5 user license and toolbox 1 user |
| Software: CHEMCAD Version 6.3.2- 30 user license (MODROB-AICTE) |
| LCD Projector Hitachi make 01No. |

31. Number of students receiving financial assistance from college, university, government or other agencies:

The students of SC/ST/OBC category receive financial assistance from PMSS (Post Matric Scholarship Punjab. They are given a scholarship amounting to 75% (approx.) of the total fees as per govt. rules. The detail of the admitted students in SC/ST/OBC category is given in the following table:

Details of SC/ST Post Matric Students

|  |  |  |
| --- | --- | --- |
| Sr. No. | Batch | Name |
|  | 2011 | Pardeep Kumar, |
|  | Satwinder Singh |
|  | 2012 | Gorav Sawaria |
|  | 2013 | Divyanshi |
|  | Gurmeet Kaur |
|  | Sareen Virdi |
|  | Sandeep Kaur |
|  | Mandeep |
|  | Kirandeep |
|  | Navdeep Kainth |
|  | Navjot Kaur |
|  | Ritika |
|  | 2014 | Govinda |
| Total =13 | | |

Further, meritorious students are admitted under fee-waiver category, based upon their rank in JEE main.

Details of students admitted under Fee waiver

|  |  |  |  |
| --- | --- | --- | --- |
| Sr. No. | Batch | Name | No. of students |
| 1 | 2011 | Jyoti Sharma | 01 |
| 2 | 2012 | Ankit Narang | 01 |
| 3 | 2013 | Kashish Chandna | 01 |
| 4 | 2014 | Anshul Garg & Mohit Sehgal | 02 |
| Total | | | 05 |

32. Details on student enrichment programmes (speciallectures/workshops/seminar) with external experts:

* + At the institute level, societies like SECA and ISTE students chapter organizes various co-curricular and extra-curricular activities to enhance the overall personality development of the students and hence contribute to attainment of the PEOs (Details in Annexure-V).
  + The NCC, NSS and sports facilities are provided to the students of the college for their development (Details in Annexure-V).
  + ChESS, the departmental students’ society has been engaged in organizing expert lectures, group discussions, oral and poster presentations for all round development of the students (details in section 4).
  + The college placement cell organizes workshops and classes for enhancing the soft skills of the students.
  + Industrial visits are organized visits through Industry Institute Interaction Cell (IIIC)of the college.

33. Teaching methods adopted to improve student learning

* The curriculum includes practical work distributed over twelve laboratories in the Department and other departments. The course content of the laboratories is designed on the basis of contents of the theory courses of the curriculum so that the students can have experience of handling and operating systems on lab scale and derive meaningful results.
* The students undergo industrial training at various stages for hands on experience as a part of curriculum. The students are required to undergo trainings at end of first year (in Workshops- Institutional practical training), at the end of second year (in industry- Industrial practical training) and six months Industrial training in 7th / 8th semester. The students undertake projects in consultation with the faculty. Many students go to prestigious industrial houses, to carry out six months training.
* The final year project work is allotted to a group of students, which may be a theoretical design project or experimental one. The students’ performance in the project helps in analyzing the problem solving capabilities, their knowledge and team spirit. The following table gives some of key-projects being taken by students of Chemical Engineering during last few years.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name of the Student(s) | Project Title | Area of Specialization | Project Supervisor(s) | Contribution / Achievements / Research Output |
| **In CAYm4(2009-2010)** | | | | |
| Jaspal Singh  Karan Arora  Vikrant joshi | Optimization through genetic algorithm | Optimization | Dr. Rajeev Garg | Use of non-traditional optimization |
| Akhilesh Chadha Bhupender Kumar Kamalpreet Kaur | Processing & testing of TiO2 filled Polypropylene | Material processing | Mr. Pankaj Kalra | Material processing for property variations |
| Anmol Singh Pulkit Rhode Sarvjeet Kaur | Preparation of compost using Anerobic microbial degradation | Environmental Application | Mr. Amit Arora | Bio-fermentation process technology |
| Manjit KaurGaganpreet Kaur | Analysis of waste water and design of ASP for paper mill | Plant Design | Mrs. Balpreet Kaur | Environmental pollution control |
| **In CAYm3 (2010-11)** | | | | |
| Hardeep Kumar  Sandeep Kaur  Swami Vivek | Plant design for Production of Biogas from distillery spent wash | Plant Design | Mr. Pankaj Kalra | Biogas from waste |
| Megha Arora  Prince Kumar  Sandeep Singh Raghav | Simulation and Modeling of CSTR using GA | Modeling & simulation | Dr. Rajeev Garg | Use of Genetic Algorithm in chemical engineering problem |
| Sandeep Kaur  Parveen  Devinder Kumar | Production of Biocoal from Hostel food waste | Environmental Application | Mr. Amit Arora | Utilization of local bio waste |
| Gurjeet Kaur  Honey Sharma  Shubhank Vajpayee | Municipal Waste water treatment | Environmental Application | Ms. Balpreet Kaur | Environmental pollution control |
| In CAYm2 (2011-12) | | | | |
| Abhinav Goel Ashish Chopra Chetan Sharma Deepak Sharma | Development of coloured anodized AL- Oxide by filling dyes in Nano-Pores | Material Processing | Mr. Surinder Singh  Dr. M.K. Kushwaha | Material processing for property variations |
| Kaptan Singh Sahil Singh Shivani Sharma | Anodization of aliminium in the presence of surfactant | Material Processing | Dr. Rajeev Garg  Dr. M.K Kushwaha | Material processing for property variations |
| Mandeep Singh Supriya Kshama Rajwant Kaur | Production of bio diesel through trans-esterification of waste cooking oil | Pollution control | Mr. Amit Arora | Utilization of local waste cooking oil |
| Varun Suri Vikram kumar Harpreet kaur | Variation in COD of Pulp And Paper mill Effluent on treatment with Bio Degradeable Polymer | Pollution control | Ms. Balpreet Kaur | One publication\* |
| In CAYm1 (2012-13) | | | | |
| Renuka, Sahil Singla, Prashant Thakur, Jyoti Sharma, Prateek Saxena | One dimensional Modeling and Simulation of Solid Oxide Fuel Cell | Modeling & simulation | Mr. Pankaj Kalra | Use of modeling and simulation concepts for a new system |
| Rohit Ghai, Rohit Goyal, Gurvinder Singh, Heena Sharma, Harjit Singh | Reclamation of Lubricating Oil | Material processing & testing | Mr. Surinder Singh | Recycle & Reuse |
| Gagandeep Kaur, Neetu Shama, Komal Sharma, Ajay, Harpreet Singh | Adsorption of Dyes | Pollution control | Mr. Raj Kumar | Environmental pollution control |
| In CAY (2013-14) | | | | |
| Karamvir Singh, Kashish Pawar, Ritika, Shimpan Thakur, Jasdeep Singh, Sukhjinder Singh | Adsorption of Reactive Black 5 Dye on Fly Ash | Pollution control | Mr. Raj Kumar | Environmental pollution control |
| Kajal, Maneet Kaur, Ashish Koundle, Anwar Khan, Mandeep Kaur, Gulshan Kumar | Manufacture of Fly Ash Bricks Incorporating Carbon From Waste Dry Cells | Pollution control | Mr. Surinder Singh | Recycle & Reuse |
| Palak Dhiman, Amandip Kaur, Priya Sharma, Rakesh Kumar, Ajay Kumar, Manpreet Singh | Preparation of Plywood Adhesive from Paper Mill Waste (Black Liquor) | Pollution control | Mr. Pankaj Kalra | Recycle & Reuse |
| Mohit Mittal, Diwakar Kandwal, Manjot Thind, Gupinder Singh, Harpreet Kumar, Muskan Bagheria | Study of Esterification of Butyric Acid with Methanol and its Reaction Kinetics using Carbonaceous Catalyst | Material Processing | Dr Rajeev Kumar | Material Processing by alternate methods |
| Amit Kumar, Avinash Kumar, Shamsher Singh Rawat, Ishan Manchanda, Jaskaran Singh, Ramandeep | Removal and Recovery of Phosphorous from Waste Water by using Magnetite\*\* | Pollution control | Ms. Balpreet Kaur | Environmental pollution control |

34. Participationin Institutional Social Responsibility (ISR) and Extension activities

The following administrative setup helps in Institutional Social Responsibility (ISR) and other Extension activities:

35. SWO Tanalysis of the department and Future plans

Future Plans

* Laboratory performance assessment to be made elaborated on basis of performance on each turn
* More expert lectures
* More use of presentations in teaching

**Evaluative Report of**

**Computer Science & Engg. Department**

TheSelf-evaluationofeverydepartmentmaybeprovidedseparatelyinabout

3-4pages,avoiding the repetition of the data.

1. Name of the department **Computer Sc & Engg**

2. Year of Establishment **1996**

3. Names of Programmes/Courses offered (UG,PG,M.Phil.,Ph.D.,Integrated

Masters; Integrated Ph.D., etc.) **1. B.Tech Computer Sc & Engg**

**2. M.Tech Computer Sc & Engg**

4. Names of Inter disciplinary courses and the departments/units involved **ECE, DASH, Mech Engg.**

5. Annual/semester/choice based credit system (programmewise) **Semester**

6. Participation of the department in the courses offered by other departments **Teaching FCPIT, Operating Systems, Data Structure**

7. Coursesin collaboration with other universities, industries, foreign institutions, etc.

**1. Mobile Application Development**

**2. Agile Software Development**

8. Detailsofcourses/programmes discontinued (ifany)withreasons: **Nil**

9. Numberof Teachingposts

|  |  |  |
| --- | --- | --- |
|  | **Sanctioned** | **Filled** |
| Professors | 03 | 01+02(Asstt Prof) |
| AssociateProfessors | 06 | 04+02(Asstt Prof) |
| Asst.Professors | 21 | 21 |

10. Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt.

/Ph.D./M.Phil.etc.,)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Name** | **Qualification** | **Designation** | **Specialization** | **No.ofYears of Experience** | **No.ofPh.D.**  **Students**  **guidedforthe**  **last4years** |
| Dr Krishan Saluja | Ph.D  (IIT, Roorkee) | Professor | Network Security | 19 Years | Completed (01)  Registered (06), Enrolled (04) |
| Dr Monika Sachdeva | Ph.D  (GNDU, Amritsar) | Associate Professor | Network Security | 17 Years | Enrolled(8) |
| Mrs Daljeet Kaur | M.Tech (PTU, Jalandhar) | Associate Professor | Network Security | 19 Years |  |
| Mr Japinder Singh | M.S(Software Systems) | Associate Professor | Network Security/Admn | 19 Years |  |
| Mr Navtej Singh | M.Tech (NITTR, Chd) | Associate Professor | Cloud Computing | 19 Years |  |
| Ms Sonika Jindal | M.Tech (Pbi University) | Assistant Professor | Image Processing | 19 Years |  |
| Mr Sunny Behal | M.Tech (PTU, Jalandhar) | Assistant Professor | Network Security | 12 Years |  |
| Mr Vishal Arora | M.Tech (PTU, Jalandhar) | Assistant Professor | Network Security | 12 Years |  |
| Mr Pawan Luthra | M.Tech (PTU, Jalandhar) | Assistant Professor | Network Security | 12 Years |  |
| Mr Sarabjeet Singh | M.Tech (PTU, Jalandhar) | Assistant Professor | Parallel Computing | 12 Years |  |
| Mr. Gurjeet Singh | MTech, PAU,Ludhiana | Assistant Professor | WSN | 0 years |  |
| Mr. Gurbhej Singh | M.Tech SGGS, Fatehgarh Sahib | Assistant Professor | WSN | 0 years |  |
| Mr. Jabarweer Singh | M.Tech (PTU, Jalandhar) | Assistant Professor | Network Security | 0 years |  |
| Ms. Surinderjit Kaur | M.Tech Punjabi University, Patiala | Assistant Professor | WSN | 0 years |  |
| Ms. Kiranveer Kaur | M.Tech Punjabi University, Patiala | Assistant Professor | MANET | 0 Years |  |
| Ms. Supreet Kaur | M.Tech,Punjabi Univeristy, Patiala | Assistant Professor | Image Processing | 0 Year |  |
| Ms. Prabhjot Kaur | M.Tech (GNDU, Amristar) | Assistant Professor | Parallel Computing | 0 Year |  |
| Mrs. Pawansupreet Kaur | M.Tech (PTU, Jalandhar) | Assistant Professor | Network Security | 2 Years |  |
| Ms.Tania Nagpal | M.Tech (PTU, Jallandar) | Assistant Professor | Network Security | 3 Years |  |
| Mr. Dheeraj Pal Singh | M.Tech (Punjabi University, Patiala | Assistant Professor | Software Engineering | 0 Year |  |

11. List of senior visiting faculty

Dr Gurvinder Singh Prof & HOD GNDU Amritsar

Dr S P Gupta Asso Prof & HOD BCET Gurdaspur

Dr Himanshu Garg Professor UCOE, Punjabi University Patiala

12. Percentage of lectures delivered and practical classes handled (programmewise)

By temporary faculty.

13. Student-Teacher Ratio (programmewise) BTech : 15:1

MTech :12:1

14. Number of academic support staff (technical)and administrative staff; sanctioned and filled: Filled-09

15. Qualifications of teaching faculty with DSc/D.Litt/Ph.D/MPhil/PG.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Name** | **Qualification** | **Designation** | **Specialization** | **No.ofYears of Experience** | **No.ofPh.D.**  **Students**  **guidedforthe**  **last4years** |
| Dr Krishan Saluja | Ph.D  (IIT, Roorkee) | Professor | Network Security | 19 Years | Completed (01)  Registered (06), Enrolled (04) |
| Dr Monika Sachdeva | Ph.D  (GNDU, Amritsar) | Associate Professor | Network Security | 17 Years | Enrolled(8) |
| Mrs Daljeet Kaur | M.Tech (PTU, Jalandhar) | Associate Professor | Network Security | 19 Years |  |
| Mr Japinder Singh | M.S(Software Systems) | Associate Professor | Network Security/Admn | 19 Years |  |
| Mr Navtej Singh | M.Tech (NITTR, Chd) | Associate Professor | Cloud Computing | 19 Years |  |
| Ms Sonika Jindal | M.Tech (Pbi University) | Assistant Professor | Image Processing | 19 Years |  |
| Mr Sunny Behal | M.Tech (PTU, Jalandhar) | Assistant Professor | Network Security | 12 Years |  |
| Mr Vishal Arora | M.Tech (PTU, Jalandhar) | Assistant Professor | Network Security | 12 Years |  |
| Mr Pawan Luthra | M.Tech (PTU, Jalandhar) | Assistant Professor | Network Security | 12 Years |  |
| Mr Sarabjeet Singh | M.Tech (PTU, Jalandhar) | Assistant Professor | Parallel Computing | 12 Years |  |
| Mr. Gurjeet Singh | MTech, PAU,Ludhiana | Assistant Professor | WSN | 0 years |  |
| Mr. Gurbhej Singh | M.Tech SGGS, Fatehgarh Sahib | Assistant Professor | WSN | 0 years |  |
| Mr. Jabarweer Singh | M.Tech (PTU, Jalandhar) | Assistant Professor | Network Security | 0 years |  |
| Ms. Surinderjit Kaur | M.Tech Punjabi University, Patiala | Assistant Professor | WSN | 0 years |  |
| Ms. Kiranveer Kaur | M.Tech Punjabi University, Patiala | Assistant Professor | MANET | 0 Years |  |
| Ms. Supreet Kaur | M.Tech,Punjabi Univeristy, Patiala | Assistant Professor | Image Processing | 0 Year |  |
| Ms. Prabhjot Kaur | M.Tech (GNDU, Amristar) | Assistant Professor | Parallel Computing | 0 Year |  |
| Mrs. Pawansupreet Kaur | M.Tech (PTU, Jalandhar) | Assistant Professor | Network Security | 2 Years |  |
| Ms.Tania Nagpal | M.Tech (PTU, Jallandar) | Assistant Professor | Network Security | 3 Years |  |
| Mr. Dheeraj Pal Singh | M.Tech (Punjabi University, Patiala | Assistant Professor | Software Engineering | 0 Year |  |

16. Number of facultywith on going projects from a) National b) International funding agencies andgrants received

|  |  |  |
| --- | --- | --- |
| RPS Project | Title :Devlopment of Testbed for evaluation of Defence Techniques against DDoS Attack | Amount 7.5 lakhs  Sponsored by AICTE  Status Ongoing |
| MODROB | Modernisation of Networking Lab | Amount : 8.5 lakhs  Sponsored by AICTE  Status : Near Completion |

17. Departmental projects funded by DST-FIST;UGC, DBT, ICSSR, etc. and total grants received

|  |  |  |
| --- | --- | --- |
| RPS Project | Title :Devlopment of Testbed for evaluation of Defence Techniques against DDoS Attack | Amount 7.5 lakhs  Sponsored by AICTE  Status Ongoing |
| MODROB | Modernisation of Networking Lab | Amount : 8.5 lakhs  Sponsored by AICTE  Status : Near Completion |

18. Research Centre/facility recognized by the University

**02 students are Pursuing Fulltime PhD**

**Punjab Technical University has recognized it as Regional Study Centre for M.Tech Computer Sc&Engg for their students**

19. Publications:

∗ a) Publicationperfaculty

∗ Number of papers published in peer reviewed journals (national/

International) by faculty and students

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|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Publications By Faculty Members** | | | | | | | | | | | | |
| **Sr. No.** | **Name of Faculty** | **Number of papers published in peer reviewed journal** | **No of publications listed in International Database** | **Monographs** | **Chapter in Books** | **Books Edited** | **Books with ISBN/ISSN numbers** | **Citation Index** | **SNIP** | **SJR** | **Impact Factor** | **h-index** |
| 1 | Dr. Krishan Saluja | 48 | 90 | Nil |  | 4 | 3 | 315 |  |  | 14 paper | 10 |
| 2 | Dr. Monika Sachdeva | 24 | 48 | Nil | Nil | Nil | Nil | 175 |  |  | 6 paper | 8 |
| 3 | Ms. Daljeet Kaur | 1 | 5 | Nil | Nil | Nil | Nil |  |  |  |  |  |
| 4 | Mr. Japinder Singh |  | 2 | Nil | Nil | Nil | Nil |  |  |  |  |  |
| 5 | Mr.Navtej Singh Ghuman | 1 | 5 | Nil | Nil | Nil | Nil |  |  |  |  |  |
| 6 | Ms. Sonika Jindal | 20 |  | Nil | Nil | Nil | Nil | 40 |  |  | 13 paper | 3 |
| 7 | Mr.Sunny Behal | 12 | 26 | Nil | Nil | Nil | Nil | 35 |  |  | 7 papers | 3 |
| 8 | Mr. Pawan Luthra | 5 | 8 | Nil | Nil | Nil | Nil |  |  |  |  |  |
| 9 | Mr Vishal Arora | 7 | 11 | Nil | Nil | Nil | Nil |  |  |  |  |  |
| 10 | Mr. Sarabjeet Singh | 1 | 5 | Nil | 4 | Nil | Nil |  |  |  |  |  |
| 11 | Mr. Gurjeet Singh | 1 | 1 | Nil | Nil | Nil | Nil |  |  |  |  |  |
| 12 | Mr. Gurbhej Singh | 4 | 4 | Nil | Nil | Nil | Nil |  |  |  |  |  |
| 13 | Mr. Jabarweer Singh | 1 | 1 | Nil | Nil | 1 | Nil |  |  |  |  |  |
| 14 | Ms. Surinderjit Kaur | 3 | 3 | Nil | Nil | Nil | Nil |  |  |  |  |  |
| 15 | Ms. Kiranveer Kaur | 3 | 3 | Nil | Nil | Nil | Nil |  |  |  |  |  |
| 17 | Ms. Prabhjot Kaur | 2 | 2 | Nil | Nil | Nil | Nil |  |  |  |  |  |
| 22 | Mr. Jagdeep Singh | 2 | 2 | Nil | Nil | Nil | Nil |  |  |  | 1 paper |  |
| 23 | Ms.Tania Nagpal |  | 1 | Nil | Nil | Nil | Nil |  |  |  |  |  |

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Publications By Students** | | | | | | | | | | | | |
| **Sr. No.** | **Name of Faculty** | **Number of papers published in peer reviewed journal** | **No of publications listed in International Database** | **Monographs** | **Chapter in Books** | **Books Edited** | **Books with ISBN/ISSN numbers** | **Citation Index** | **SNIP** | **SJR** | **Impact Factor** | **h-index** |
| 1 | Ms. Manpreet Kaur | 1 | 1 | 1 | Nil | Nil | Nil | Nil | Nil | Nil | Nil | Nil |
| 2 | Ms. Ritika Arora | 1 | 2 | 1 | Nil | Nil | Nil | Nil | Nil | Nil | Nil | Nil |
| 3 | Mr. Amandeep Singh | 1 | 1 | 1 | Nil | Nil | Nil | Nil | Nil | Nil | Nil | Nil |
| 4 | Ms. Sarabjeet Kaur | 1 | 1 | 1 | Nil | Nil | Nil | Nil | Nil | Nil | Nil | Nil |
| 5 | Ms. Karamjeet Kaur |  | 1 |  | Nil | Nil | Nil | Nil | Nil | Nil | Nil | Nil |
| 6 | Ms. Bhavneet kaur | 1 | 4 | 1 | Nil | Nil | Nil | Nil | Nil | Nil | Nil | Nil |
| 7 | Ms. Navneet kaur |  | 1 |  | Nil | Nil | Nil | Nil | Nil | Nil | Nil | Nil |
| 8 | Ms. Divya Prabha |  | 1 |  | Nil | Nil | Nil | Nil | Nil | Nil | Nil | Nil |
| 9 | Ms. Divjot Kaur Thind |  | 1 |  | Nil | Nil | Nil | Nil | Nil | Nil | Nil | Nil |
| 10 | Ms. Reenkamal kaur Gill |  | 1 |  | Nil | Nil | Nil | Nil | Nil | Nil | Nil | Nil |
| 11 | Ms. Rajwinder kaur |  | 1 |  | Nil | Nil | Nil | Nil | Nil | Nil | Nil | Nil |
| 12 | Ms. Sanjoly | 1 | 1 | 1 | Nil | Nil | Nil | Nil | Nil | Nil | Nil | Nil |
| 13 | Mr. Gaurav Dhawan |  | 1 |  | Nil | Nil | Nil | Nil | Nil | Nil | Nil | Nil |
| 14 | Ms. Amanpreet Chawla | 1 | 1 | 1 | Nil | Nil | Nil | Nil | Nil | Nil | Nil | Nil |
| 15 | Ms. Priya Chawla |  | 1 |  | Nil | Nil | Nil | Nil | Nil | Nil | Nil | Nil |
| 17 | Ms. Swati | 2 | 2 | 2 | Nil | Nil | Nil | Nil | Nil | Nil | Nil | Nil |
| 22 | Ms. Payal Monga | 1 | 1 | 1 | Nil | Nil | Nil | Nil | Nil | Nil | Nil | Nil |
| 23 | Ms. Reva Sethi | 1 | 1 | 1 | Nil | Nil | Nil | Nil | Nil | Nil | Nil | Nil |

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**Affiliated/Constituent Colleges**

∗ Number of publications listed in International Data base (For Eg: Web of Science, Scopus, Humanities International Complete, Dare Database-International Social Sciences Directory, EBSCO host, etc.)

∗ Monographs

∗ Chapterin Books

∗ Books Edited

∗ Books with ISBN/ISSN numbers with details of publishers

∗ Citation Index

∗ SNIP

∗ SJR

∗ Impact factor

∗ h-index

20. Areas of consul tancy and income generated : Nil

21. Faculty as members in

a) National committees

b) International Committees

c) Editorial Boards….:

22. Student projects

a) Percentage of students who have done in-house projects including interdepartmental/programme: 20%

b) Percentage of students placed for projects in organizations outside the institution i.e. in Research laboratories/Industry/ other agencies: **5%**

23. Awards/Recognitions receivedbyfacultyandstudents

**03 Students received Award at National Level Competition held at IIT Roorkee.**

24. List of eminent academicians and scientists/visit or to the department :

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**ManualforSelf-studyReport**

**Affiliated/ConstituentColleges**

25. Seminars/Conferences/Workshops organized & the source of funding a) Regional 01 workshop funded by TEQIP II

b) National

c) International 01 ICCCS 2014 funded by TEQIP

26. Student profile programme/course wise:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Nameofthe Course/programme**(refer question no. 4) | **Applications received** | **Selected** | **Enrolled** | | **Pass percentage** |
| **\*M** | **\*F** |
| BTech |  | 528 | 338 | 190 | 94 |
| MTech |  | 36 | 03 | 32 | 95 |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

\*M=Male \*F=Female

27. Diversity of Students

|  |  |  |  |
| --- | --- | --- | --- |
| **Name of the**  **Course** | **%of students from the same state** | **% of students from other States** | **%of students from abroad** |
| BTech | 70.64 | 29.36 |  |
| MTech | 88.88 | 11.12 |  |

28. How many students have cleared national and state competitive examination such as NET,SLET, GATE, Civilservices, Defenseservices, etc.?

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**ManualforSelf-studyReport**

**Affiliated/ConstituentColleges**

29. Studentprogression

|  |  |
| --- | --- |
| **Studentprogression** | **Against%enrolled** |
| UGtoPG | Approx 10% |
| PGtoM.Phil. |  |
| PGtoPh.D. |  |
| Ph.D.toPost-Doctoral |  |
| **Employed**  •Campus selection  •Other than campus recruitment | **55%**  **33%** |
| Entrepreneurship/Self-employment | **2%** |

30. Details of Infrastructural facilities a) Library : under process

b) Internet facilities for Staff & Students **Fully available to each faculty & students**

c) Class rooms with ICT facility 04

d) Laboratories 04

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Name of Lab** | **Room No.** | **Even Sem Practical course** | **Odd Sem. Practical Course** | **No. of Computer** | **Other kits/ infrastructure** | **S/w** |
| Networking Lab | 214-15 | Operating System Lab(BTCS306),Open Source Software Lab(BTCS605),Computer Network1(BTCS403) | Artificial Intelligence(BTCS704),VA,EIT,Computer Graphics (BTCS509),Computer Network2(BTCS507) | 25 | Networking Training Kits, Rouer, Switch, Printer, Scanner , Projector etc. | WINDOWS, Data recovery tools, Java,C++, Linux |
| Major Project Lab | 217 | Operating System Lab(BTCS306),Software Engg(BTCS606), Value Added, EIT | DATA STRUCTURE(BTCS306) | 34 | PRINTER, Projector | WINDOWS, Rational Rose,C++, Java, Linux |
| Computational Lab | 218-19 | FCPIT,System Programming(BTCS409),EIT, | Object Orient Programming using c++ (BTCS309),Computer Graphics (BTCS509),Design and Analysis of Algorithims(BTCS508) | 30 | PRINTER, Projector | WINDOWS, MSOFFICE, C++ |
| RDBMS Lab | 203-04 | RDBMS(BTCS506),System Prog. (BTCS409),Simulation and Modelling (BTCS607) | RDBMS-1(BTCS604),VA,Design and Analysis of Algorithims(BTCS508) | 25 | PRINTER, Projector | C++, Sql,Java,NS2 |

31. Number of students receiving financial assistance from college, university,

Government or other agencies

32. Details on student enrichment programmes (speciallectures/workshops/

seminar) with external experts

|  |  |  |  |
| --- | --- | --- | --- |
| **Sr. No.** | **Title of STC/Workshop** | **Duration** | **No of Participant** |
|  | Workshop on “Mobile Application Development” from 18-19th Feb 2014. | 2 Days | 57 |
|  | STC on “Cloud Computing” from 28th Oct- 1st Nov 2013. | 5 Days | 30 |
|  | STC on “New Computing and Emerging Technologies in the ICT and Modern Teaching Tools” on 26th-30th Aug 2013. | 5 Days | 90 |
|  | Expert Lecture on “Current Technology Awareness” on 21-08-2013 by Navjot Singh, Technical Director, Weavebytes, Chandigarh. | 1 Day | 90 |
|  | Expert Lecture on “Mobile Application n Development” on 19-08-2013 by Manu Mehra, Director, V-Serv Solutions, Ludhiana. | 1 Day | 73 |
|  | Expert Lecture on “Software Safety” on 09-08-2013 by Pankaj Vyas, AP, CSE, BITS, Pilani. | 1Day | 35 |

33. Teaching methods adopted to improve student learning

**01 Classroom Teaching**

**02 Laboratories**

**03 Audio Visual Aids**

**04 Availability of NPTEL Lectures thru Internet**

**05 EDUSAT facility**

**06 Workshops**

**07 Expert Lectures**

**08 Industrial Visit**

**09 Value added Subjects**

**10 Remedial classes**

**11Interaction with the Industry**

34. Participation in Institutional Social Responsibility (ISR) and Extension activities

**Students Participate in NSS Activities**

**Faculty & Students both Participate in Blood Donation Camp**

**Faculty & Staff both take active participation in Election Process**

35. SWOC analysis of the department and Futureplans

**Future Plans**

**Encouraging Faculty to enroll in PhD**

**Active participation for consultancy to Industry**

**Enhancement of Research Infrastructure**

**Establishment of Centre of Excellence**.

**EvaluativeReportof**

**Electronics & Communication Engineering Department**

The Self-evaluation of every department may be provided separately in about 3-4 pages, avoiding the repetition of the data.

1. Nameofthedepartment: Electronics & Communication Engineering

2. Year of Establishment: 2002

3. Names of Programmes/Courses offered (UG,PG,M.Phil.,Ph.D., Integrated Masters; Integrated Ph.D., etc.): UG, PG

4. Names of Inter disciplinary courses and the departments/units involved:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Sr.** | **Course Code** | **Course Title** | **Semester** | **Branch** | **Load Taken By** |
| **List of subjects sent to other deptt. by ECE department** | | | | | |
| 1 | BTAM-301 | Engg. Mathematics-III | 3rd | ECE | Dash |
| 2 | BTCS-305 | Object Oriented Programming using C++ | 3rd | ECE | CSE |
| 3 | BTCS-309 | Lab Object Oriented Programming | 3rd | ECE | CSE |
| 4 | BTEE-402 | Linear Control Systems | 4th | ECE | EE |
| 5 | BTCS-304 | Data Structures | 5th | ECE | CSE |
| 6 | BTCS-401 | Operating Systems | 6th | ECE | CSE |
| 7 | BTEC-603 | Engg. Economics & Industrial Management | 6th | ECE | MBA |

5. Annual/semester/choice based credit system (programme wise):

|  |  |  |  |
| --- | --- | --- | --- |
| **Sr. No.** | **Programme Wise** | **Branch** | **Annual / Semester** |
| 1. | UG | ECE | Semester |
| 2. | PG | ECE | Semester |

6. Participation of the department in the courses offered by other departments

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Sr. No. | Department | Semester | Subjects | Theory/ Lab |
| 1. | CSE | 3rd | DCLD | Theory & Lab |
| 2. | CSE | 4th | MALP | Lab |
| 3. | EE | 3rd | SCD | Lab |
| 4. | EE | 4th | EDC | Lab |
| 5. | EE | 6th | MCPLC | Lab |
| 6. | BCA | 2nd | DCLD | Lab |
| 7. | MCA | 5th | ES | Lab |

7. Courses in collaboration with other universities, industries, foreign institutions, etc.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Value added courses added in curriculum of ECE students in collaboration with INFOSYS | | | |
|  | Essentials of Information Technology |  |  |  |
|  | Mobile Application Development |  |  |  |
|  | Agile Software Development |  |  |  |
|  | Business Intelligence |  |  |  |
|  | Internet and web technologies |  |  |  |

8. Details of courses/programmes discontinued (ifany) withreasons: Nil

9. Number of Teaching posts

|  |  |  |
| --- | --- | --- |
|  | **Sanctioned** | **Filled** |
| **Professors** | **2** | **1** |
| **Associate Professors** | **4** | **2** |
| **Asst. Professors** | **12** | **15** |

10. Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt. /Ph.D./M.Phil.etc.,)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Name** | **Qualification** | **Designation** | **Specialization** | **No. of Years of Experience** | **No. of Ph.D students guided for the last 4 years** |
| Mr. Sanjeev Dewra | M.Tech, PhD(Pur.) | Associate Professor | Optical Fiber Communication | 21yrs | Nil |
| Dr. Satvir Singh | PhD. | Professor | Soft Computing | 14yrs | Nil |
| Mrs. Rajni | M.Tech  PhD(Pur.) | Associate Professor | Wireless Communication and Antenna Design | 16yrs | Nil |
| Dr. Vishal Sharma | PhD. | Assistant Professor | Optical & Wireless Communication Systems & network | 10yrs | Nil |
| Mr. Vikram Mutneja | M.Tech  PhD(Pur.) | Assistant Professor | Image Processing ,Embedded Systems | 12yrs | Nil |
| Mrs. Jaswinder Kaur | M.Tech  PhD(Pur.) | Assistant Professor | Wireless Communication Systems | 9yrs | Nil |
| Mrs. Geeta Arora | M.Tech | Assistant Professor | Embedded Systems | 17yrs | Nil |
| Mr. Inderjeet Singh Gill | M.Tech  PhD(Pur.) | Assistant Professor | Digital System Design/Imaging Processing /WSN | 12yrs 8 months | Nil |
| Mr. Amit Grover | M.Tech  PhD(Pur.) | Assistant Professor | Wireless Communication Systems | 13yrs | Nil |
| Mr. Chakshu Goel | M.Tech | Assistant Professor | VLSI | 12yrs | Nil |
| Ms. Navdeep Kaur | M.Tech | Assistant Professor | Neural Network /Wireless Communication systems/VLSI | 6.5yrs | Nil |
| Mrs. Ramandeep Kaur | M.Tech | Assistant Professor | Embedded systems | 1yr | Nil |
| Mr. Gurpreet Singh | M.Tech | Assistant Professor | Wireless Communication systems | Nil | Nil |
| Ms. Mini Lumba | M.Tech | Assistant Professor | Optical Communication Systems | 1yr | Nil |
| Ms. Riya | M.Tech | Assistant Professor | Wireless Sensor Networks | 1yr | Nil |
| Ms. Paras Mani | M.Tech | Assistant Professor | VLSI | Nil | Nil |
| Ms. Aruna Rani | M.Tech | Assistant Professor | Optical Fiber Communication | Nil | Nil |
| Mr. Vivek Soi | M.Tech  PhD(Pur.) | Assistant Professor | Wireless Communication systems | 5yrs | Nil |

11. List of senior visiting faculty

|  |  |  |  |
| --- | --- | --- | --- |
| **S. No.** | **Name of Visiting Faculty** | **Designation** | **Description** |
| 1. | Dr. T.S Kamal | Retired Prof. SLIET, Longowal | International Conference of Communication & Computing, SBSSTC, Ferozepur  8 to 9 august 2014 |
| 2. | Dr. Shakti Kumar | Director Yamna Group of Information, Yamnanagar | International Conference of Communication & Computing, SBSSTC, Ferozepur  8 to 9 august 2014 |
| 3. | Dr. Surinder Singh Sodhi | Assoicate Prof. ECE,SLIET Longowal | Photonics 21st to 25th oct. 2013 |
| 4. | Dr. Rajneesh Talwar | Professor & Principal, CGC Landran | Photonics 21st to 25th oct. 2013 |
| 5. | Dr. Manjit Singh Bhamrah | Professor ECE, UCOE, Punjabi University, Patiala | Photonics 21st to 25th oct. 2013 |
| 6. | Dr. R.S Kaler | Sr. Professor, ECE, Thapar University, Patiala | Photonics 21st to 25th oct. 2013 |
| 7. | Dr. A.K. Tyagi | Professor, DASH, SBSSTC, Ferozepur | Photonics 21st to 25th oct. 2013 |
| 8. | Mr. Pankaj Bagga, CEO | E2 Matrix, Opp. Phagwara Bus Stand, Above Cafe Coffee Day, Handa City Center, Phagwara | Digital Image, Video & Medical Image Processing  23rd to 27th Sept 2013 |
| 9. | Mr. Jitender Kumar | Project Manager at Unit Nexus, SCO 1, Above State bank of India, Zirakpur | Digital Image, Video & Medical Image Processing  23rd to 27th Sept 2013 |
| 10. | Mr. Ankit Makkar | Manager at Maffick Instruments,#380, Model Town, Ambala City, Haryana, India | Digital Image, Video & Medical Image Processing  23rd to 27th Sept 2013 |
| 11. | Mr. Lovish Jaswal | Research Associate at Gigabyte Network Pvt. Ltd. 6th floor Surya kiran-II, Ludhiana | Recent Trends in Optical communication system Design  9th Sept. to 13th Sept. 2013 |
| 12. | Mr. Vishal Chaudhary | Sr. Application Engg. at Gigabyte House c/o Gigasoft India, Sixth floor Surya kiran phase-II, The Mall, Ludhiana | Recent Trends in Optical communication system Design  9th Sept. to 13th Sept. 2013 |
| 13. | Mr. Achint Vats | Application Engg. at Eigen Technologies Pvt. Ltd. IIIrd floor, C-27 community centre janakpuri, New Delhi | Recent Trends in Optical communication system Design  9th Sept. to 13th Sept. 2013 |
| 14. | Mr. Amit Sharma | Technical Director At Amitec Electronics, 4/32 Sahibabad, Industrial Area New Delhi | Recent Trends in Optical communication system Design  9th Sept. to 13th Sept. 2013 |
| 15. | Mr. Ankit Makkar | Manager System Integration at Maffick Instruments,#380, Model Town, Ambala City, Haryana, India | Recent Trends in Optical communication system Design  9th Sept. to 13th Sept. 2013 |
| 16. | Dr. Anil Rose | Associate Prof. Panipat Institute of Engg. & Technology | Nature Inspired Computational Intelligence  6 to 17 May 2013 |
| 17. | Dr. Pawan Dahiya | Assistant Professor Deen Bandu University Of Science & Technology Murthal Sonipat | Nature Inspired Computational Intelligence  6 to 17 May 2013 |
| 18. | Dr. Manoj Duhan | Professor Deen Bandu University Of Science & Technology Murthal Sonipat | Nature Inspired Computational Intelligence  6 to 17 May 2013 |
| 19. | Dr. Nirmal singh | Retired Principal MIMIT, Malout | Nature Inspired Computational Intelligence  6 to 17 May 2013 |
| 20. | Dr. Arun Khosla | Associate Professor NIT, Jalandhar | Nature Inspired Computational Intelligence  6 to 17 May 2013 |
| 21. | J.S. Saini | Prof. Deen Bandu University of Science & technology, Murthal Panipat | Nature Inspired Computational Intelligence  6 to 17 May 2013 |
| 22. | Dr. Anil Rose | Associate Prof. Panipat Institute of Engg. & Technology | Applied Soft Computing 26th to 30th November 2012 |
| 23. | Dr. Pawan Dahiya | Assitant Professor Deen Bandu University Of Science & Technology Murthal Sonipat | Applied Soft Computing 26th to 30th November 2012 |
| 24. | Dr. Manoj Duhan | Professor Deen Bandu University Of Science & Technology Murthal Sonipat | Applied Soft Computing 26th to 30th November 2012 |
| 25. | Dr. Nirmal singh | Retired Principal MIMIT, Malout | Applied Soft Computing 26th to 30th November 2012 |
| 26. | Dr. Arun Khosla | Associate Professor NIT, Jalandhar | Applied Soft Computing 26th to 30th November 2012 |
| 27. | J.S. Saini | Prof. Deen Bandu University of Science & technology, Murthal Panipat | Applied Soft Computing 26th to 30th November 2012 |
| 28. | Dr. Arun Khosla | Associate Professor NIT, Jalandhar | Intelligent Computational  Techniques 4 to 15 July 2011 |
| 29. | Mr. Amit Sharma | Technical Director At Amitec Electronics, 4/32 Sahibabad, Industrial Area New Delhi | Intelligent Computational  Techniques 4 to 15 July 2011 |
| 30. | J.S. Saini | Prof. Deen Bandu University of Science & technology, Murthal Panipat | Intelligent Computational  Techniques 4 to 15 July 2011 |
| 31. | Dr. Pawan Dahiya | Assitant Professor Deen Bandu University Of Science & Technology Murthal Sonipat | Intelligent Computational  Techniques 4 to 15 July 2011 |
| 32. | Dr. Manoj Duhan | Professor Deen Bandu University Of Science & Technology Murthal Sonipat | Intelligent Computational  Techniques 4 to 15 July 2011 |
| 33. | Dr. Nirmal singh | Retired Principal MIMIT, Malout | Intelligent Computational  Techniques 4 to 15 July 2011 |
| 34. | Dr. Anil Rose | Associate Prof. Panipat Institute of Engg. & Technology | Intelligent Computational  Techniques 4 to 15 July 2011 |

12. Percentage of Lectures delivered and practical classes handled (Programme Wise) by temporary Faculty

Percentage of lectures delivered : 22/132\*100=16.66

Practical Classes Handled (Programme Wise) : 44/128\*100=34.37

13. Student-Teacher Ratio (programmewise):

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Sr. No. | Branch | Programme | Batch | Intake |
| 1 | ECE | UG | 2013 | 113 |
| 2 | ECE | UG | 2012 | 113 |
| 3 | ECE | UG | 2011 | 113 (On training) |

No. of Students (2013 & 2012) = 226

No. of Faculty Members = 15

Student Teacher Ratio = 226/15 = 15: 1

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Sr. No. | Branch | Programme | Batch | Intake |
| 1 | ECE | PG | 2014 | 18 |
| 2 | ECE | PG | 2013 | 18 |

No. of Students (2014 & 2013) = 36

No. of Faculty Members = 12

Student Teacher Ratio = 36/12 = 12: 1

14. Number of academic support staff (technical) and administrative staff; sanctioned and filled

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Technical support staff | |  |  |  |
| Sr. | Name | Designation | Sanctioned | Filled |
| 1 | Gurmeet Singh | Lab superintendant |  | 1 |
| 2 | Pardeep Singh | Senior Technician |  | 1 |
| 3 | Baldev Singh | Junior Technician |  | 1 |
| 4 | Jaswant Singh | Junior Technician |  | 1 |
| 5 | Lakhwinder Singh | Lab Attendant |  | 1 |
| 6 | Maninder Singh | Lab attendant |  | 1 |
| Administrative Staff | |  |  |  |
| Sr. | Name | Designation | Sanctioned | Filled |
| 1 | Nand Lal | Junior Assistant |  | 1 |

15. Qualifications of teaching faculty with DSc/D.Litt/Ph.D/MPhil/PG.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Designation** | **Qualification** | **Ph.d** | **PG** |
| Mr. Sanjeev Dewra | Associate Professor | M.Tech PhD(Pur.) | - | Yes |
| Dr. Satvir Singh | Professor | Ph.D | Yes | Yes |
| Mrs. Rajni | Associate Professor | M.Tech | - | Yes |
| Dr. Vishal Sharma | Assistant Professor | Ph.D | - | Yes |
| Mr. Vikram Mutneja | Assistant Professor | M.Tech PhD(Pur.) | - | Yes |
| Mrs. Jaswinder Kaur | Assistant Professor | M.Tech PhD(Pur.) | - | Yes |
| Mrs. Geeta Arora | Assistant Professor | M.Tech | - | - |
| Mr. Inderjit Singh Gill | Assistant Professor | M.Tech PhD(Pur.) | - | Yes |
| Mr. Amit Grover | Assistant Professor | M.Tech PhD(Pur.) | - | Yes |
| Mr. Chakshu Goel | Assistant Professor | M.Tech | - | Yes |
| Ms. Navdeep Kaur | Assistant Professor | M.Tech | - | Yes |
| Mrs. Ramandeep Kaur | Assistant Professor | M.Tech | - | - |
| Mr. Gurpreet Singh | Assistant Professor | M.Tech | - | - |
| Ms. Mini Lumba | Assistant Professor | M.Tech | - | - |
| Ms. Riya | Assistant Professor | M.Tech | - | - |
| Ms. Paras Mani | Assistant Professor | M.Tech | - | - |
| Ms. Aruna Rani | Assistant Professor | M.Tech | - | - |
| Mr. Vivek Soi | Assistant Professor | M.Tech PhD(Pur.) | - | - |

16. Number of faculty with on going projects from a)National b)International funding agencies and grants received : Nil

17. Departmental projects funded by DST-FIST;UGC, DBT, ICSSR,etc.and total grants received: Nil

18. Research Centre/facility recognized by the University: Nil

19. Publications:

∗ a) Publicationperfaculty

∗Number of papers published in peer reviewed journals (national/international) by faculty and students

\*Number of publications listed in International Database (For Eg:Web of Science, Scopus, Humanities International Complete, Dare Database-International Social Sciences Directory,EBSCOhost,etc.), CitationIndex, SNIP, SJR, Impactfactor, h-index

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Sr.** | **Name of Faculty** | **Total Number of publications** | **Number of papers published in peer reviewed journal(national/international) by faculty and students** | **No of publications listed in International Database[Ex Scopus/EBSCO host]** | **Citation Index** | **SNIP** | **SJR** | **Impact Factor** | **h-index** |
| 1 | Sanjeev Dewra | 18 | 10 | 8 | 9 |  |  |  | 2 |
|  |  | One (1) in National Seminar on Cutting Edge Technologies in Electronic Communication |  |  |  |  |  |  |  |
|  |  | One (1)in National Conference on Embedded Communication Systems and Networks |  |  |  |  |  |  |  |
|  |  | One (1)in National Symposium on Emerging Trends in Networking & Mobile Communication |  |  |  |  |  |  |  |
|  |  | One (1) in National Conference on Electronic Circuits and Communication Systems |  | 2 | 4 | 0.925 | 0.31 | 0.769 |  |
|  |  | TWO (2) in OPTIK- Intrnational journal Light and Electron Optics |  | 2 | 3 |  | 0.24 | 0.24 |  |
|  |  | TWO (2) in Journal of Optical Technology |  | 1 | 1 |  |  | 1.76 |  |
|  |  | One (1) in International Journal of Engineering Research & Technology |  | 1 | 1 |  |  | 1.252 |  |
|  |  | One (1) in International Journal of Enhanced Research in Science Technology & Engineering |  | 2 |  |  |  |  |  |
|  |  | Two (2) in national conference on latest developments in science engineering and management |  |  |  |  |  |  |  |
|  |  | Two (2) in International conference on communication, computing and systems |  |  |  |  |  |  |  |
|  |  | One (1) in International Journal of Electronics & Communication Engineering Research |  |  |  |  |  | 1.77 |  |
|  |  | Two (2) in International Journal of Advanced Research in Computer and Communication Engineering |  |  |  |  |  | 1.686 |  |
|  |  | One (1) in International Journal of Advanced Research in Electrical, Electronics and Instrumentation Engineering |  |  |  |  |  |  |  |
| 2 | Chakshu Goel | 14 | 13 | 9 | 2 | 0.047 | 0.034 | IJETD-2012 (2.534) | 1 |
|  |  |  |  |  |  | 0.24 | 0.117 | IJCA-2012 (0.791) |  |
|  |  |  |  |  |  |  |  | IJAEST (1.15) |  |
|  |  |  |  |  |  |  | 0.017 | IJCA-2013 (0.791) |  |
|  |  |  |  |  |  |  |  | IJETT-2014(2.695) |  |
|  |  |  |  |  |  |  |  | AJER -2014(0.347) |  |
|  |  |  |  |  |  |  |  | IJARCSSE -2014(2.80) |  |
|  |  |  |  |  |  |  |  | IJETD-2014(2.534) |  |
|  |  |  |  |  |  | 0.24 | 0.177 | IJCA-2014 (0.791) |  |
| 3 | Vikram Mutneja | 5 | 4 | 4 | 15 |  |  | 0.821 (IJCA) | 2 |
|  |  |  |  |  |  |  |  | 2.93 (IJCSIT) |
|  |  |  |  |  |  |  |  | 1.016 (IJAST) |
|  |  |  |  |  |  |  |  | 1.84 (IJEE) |
| 4 | Mrs.Jaswinder Kaur | 14 | 10 | 4 |  | IJCA 2012-0.240 | IJCA 2012-0.177 | IJCA 2012-0.821 |  |
|  |  |  |  |  |  | IJCA 2013-0.455 | IJCA 2013-0.135 | IJCA 2013-0.791 |  |
|  |  |  |  |  |  | IJCST-1.561 | IJCST-0.186 | IJCST-0.478 |  |
|  |  |  |  |  |  | IJECT-0.498 | IJECT-0.236 | IJECT-0.413 |  |
|  |  |  |  |  |  |  |  | ISTP-0.266 |  |
| 5 | Dr. Vishal Sharma | 71 | 56 | 69 | 95 |  |  |  | 6 |
|  | optics communication |  |  |  |  | 1.207 | 0.85 | 1.552 |  |
|  | optics & laser in engineering, Elsevier |  |  |  |  | 1.929 | 0.941 | 1.695 |  |
|  | optik |  |  |  |  | 0.925 | 0.314 | 0.769 |  |
|  | ijca |  |  |  |  |  | 0.14 | 0.821 |  |
|  | ijcnwmc |  |  |  |  | 0.09 | 0.027 | 5.396 |  |
|  | ciitijwn |  |  |  |  |  |  | 0.958 |  |
| 6 | Inderjeet Singh Gill | 5 |  | 2 | 12 |  |  | IJCA:0.821 | 1 |
| 7 | Amit Grover | 44 | 38 | 36 |  | IJCA:2.734 | IJCA:0.14 | IJCA:.0.821 |  |
|  |  |  |  |  | 21 | IJPS=1.591 | IJPS:.15 | IJPS:0.55 | 3 |
|  |  |  |  |  |  | IJARCEE:0.113 | 0.026 | 1.77 |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  | IJAEECSA |  | 2.08 |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  | AETA |  | 0.533 |  |
|  |  |  |  |  |  |  |  |  |  |
| 8 | Rajni | 45 | 23 | 13 | 3 |  |  |  | 1 |
|  | IJCA |  |  |  |  |  |  | [2013] 0.79  [2014] 2.0973  [2012] 0.821 |  |
|  | IJAIEM |  |  |  |  |  |  | 2.379 |  |
|  | IJECET |  |  |  |  |  |  | 5.89 |  |
|  | IJEEEAPM |  |  |  |  |  |  | 0.5 |  |
|  | IOSRJECE |  |  |  |  |  |  | 1.586 |  |
|  | IOSRJEEE |  |  |  |  |  |  | 1.452 |  |
| 9 | Dr Satvir Singh | 13 | 13 | 1 | 58 |  |  |  | 5 |
| 10 | Navdeep Kaur | 16 | 16 | 12 |  |  |  |  |  |
|  | IJCA |  |  |  |  |  |  | 2.52 | 4.9 |
|  | IJERA |  |  |  |  |  |  | 1.325 | 2 |
|  | IJARCSSE |  |  |  |  |  |  | 2.080 | 0 |
|  | IJARCSE |  |  |  |  |  |  | 2.080 | 2 |
|  | IOSRJECE |  |  |  |  |  |  | 1.586 |  |
| 11 | Vivek Soi | 5 |  | 3 |  |  |  |  |  |
| 12 | Gurpreet Singh | 5 |  | 3 |  |  |  |  |  |
| 13 | Riya | 2 |  | 1 |  |  |  |  |  |
| 14 | Parasmani | 2 |  | 1 |  |  |  | IJSER:1.4 |  |
| 15 | Ramandeep Kaur | 5 | - | 5 |  |  |  | IOSR:1.6 |  |
| 16 | Mini Lumba | 2 |  |  |  |  |  | OPTIK:0.769 |  |
| 17 | Aruna | 4 |  | 2 |  |  |  | IJERT-1.76  IJERSTE:1.252 |  |

\*Monographs, Chapter in Books, Books Edited, Books with ISBN/ISSN numbers with details of publishers

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Sr** | **Name of Faculty** | **Monographs** | **Chapter in Books** | **Books Edited** | **Books with ISBN/ISSN numbers with details of publishers** |
| 1 | Amit Grover |  |  | 3 |  |
|  |  |  |  | Compression Techniques in Slow Internet Environment | (ISBN: 978-3-659-28103-7) |
|  |  |  |  |  | LAMBERT Academic Publishing. (19/10/2012) |
|  |  |  |  | Space-Time Block Coded Systems in Wireless Communication | (ISBN: 978-3-659-33719-2) |
|  |  |  |  |  | LAMBERT Academic Publishing. (31/01/2013) |
|  |  |  |  | Wireless Communication Systems and Networks” First Edition- 2013 | (ISBN: 978-81-7700- |
|  |  |  |  |  | 015-3) Published By Dhanpat Rai Publishers Co. Ltd, New Delhi. |
| 2 | Dr Satvir Singh | 3 | 1 | 1 | ISBN: 978-93-83-842-68-1 |
|  |  |  |  |  |  |

20. Areasofconsultancyandincomegenerated: Nil

21. Facultyasmembersin

a)National committees b)International Committees c)Editorial Boards….

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Sr. No.** | **Faculty Name** | **Committee Name** | **National/International** | **Role/Capacity** |
| 1 | Mr. Sanjeev Dewra | 1. Member of editorial board of IJCRCE. 2. Member of tech. reviewer committee of Taylor & Francis (Fiber & Integrated Optics) 3. Life member of ISTE 4. Associate member of IE 5. Editorial board member of ICCCS 2014 | International  Do  National  Do  International | Editorial board  Tech. reviewer  Life member  Associate member  Editorial board |
| 2 | Dr. Satvir Singh | 1. Corporate Member of Institution of Electronics and Telecommunication Engineers (IETE) 2. Member Editorial Board of International Journal of Electronics Engineering 3. Member, Board of Studies, Electronics & Communication Engineering, Punjab Technical University, Jalandhar 4. Convener, 2014 International Conference on Communication, Computing and Systems (ICCCS-2014) | National  International  National  International | Corporate Member  Editorial Board  Member  Convener |
| 3 | Dr. Vishal Sharma | 1. Member of tech. reviewer committee of Journal of Optical Engg., SPIE 2. Member of tech. reviewer committee of OFT, Elsevier 3. Member of tech. reviewer committee of Biomedical Optical, SPIE 4. Member of tech. reviewer committee of Journal of Computational Electronics, Springer 5. Editorial board member of ICCCS 2014 | International  International  International  International  International | Member  Member  Member  Member  Member |
| 4 | Mr. Vikram Mutneja | Life member of ISTE | National | Life member |
| 5 | Mr. Amit Grover | 1. Member of tech. reviewer committee of Journal of Microelectronics, Elsevier 2. Member of tech. reviewer committee of Journal of Computers & Electrical Engg., Elsevier 3. Member of editorial board of IJSER. 4. Member of editorial board of IJAEECA. 5. Life member of ISTE 6. Member of editorial board & Programme Committee, ISCBI’13 | International  International  International  International  National  International |  |
| 6 | Mr. Chakshu Goel | Life member of ISTE | National | Life member |

22. Student projects

ercentage of students who have done in-house projects including interdepartmental/programme 100

b) Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/ other agencies Nil

23. Awards / Recognitions received by faculty and students

|  |  |  |  |
| --- | --- | --- | --- |
| 1 | Mr. Sanjeev Dewra | 1. Rashtriya Gaurav award certificate of excellence 2. Best citizen of India award 3. Appreciation letter for organizing FDP on digital image, video/medical image processing 4. Appreciation letter for organizing FDP on Photonics 5. Appreciation letter for organizing FDP on recent trends in optical & wireless comm. 6. Appreciation letter for organizing International Conference ICCCS 2014 | National  National  National  National  National  International |
| 2 | Mrs. Rajni | 1. Appreciation letter for organizing FDP on digital image, video/medical image processing 2. Appreciation letter for organizing FDP on recent trends in optical & wireless comm. 3. Appreciation letter for organizing International Conference ICCCS 2014 | National  National  International |
| 3 | Dr. Vishal Sharma | 1. Appreciation letter for organizing FDP on Photonics 2. Appreciation letter for organizing FDP on recent trends in optical & wireless comm. 3. Appreciation letter for organizing International Conference ICCCS 2014 | National  National  International |
| 4 | Mrs Jaswinder Kaur | 1. Appreciation letter for organizing FDP on Photonics 2. Appreciation letter for organizing FDP on recent trends in optical & wireless comm. 3. Appreciation letter for organizing International Conference ICCCS 2014 | National  National  International |
| 5 | Mr. Inderjit Singh | 1. Appreciation certificate from Deputy Comm. Ferozepur for working in Lok Sabha Elections 2009 2. Appreciation letter for organizing FDP on Applied Soft Computing 3. Appreciation letter for organizing International Conference ICCCS 2014 | National  National  International |
| 6 | Mr. Vikram Mutneja | 1. Appreciation letter for organizing FDP on digital image, video/medical image processing 2. Appreciation letter for organizing FDP on recent trends in optical & wireless comm. 3. Appreciation letter for organizing International Conference ICCCS 2014 | National  National  International |
| 7 | Mr. ChakshuGoel | 1. Appreciation letter for organizing FDP on Photonics | National |
| 8 | Ms. Navdeep Kaur | 1. Appreciation letter for organizing FDP on digital image, video/medical image processing | National |

24. List of eminent academicians and scientists / visitors to the department

|  |  |  |  |
| --- | --- | --- | --- |
| **S. No.** | **Name of Visiting Faculty** | **Designation** | **Description** |
| 1. | Dr. T.S Kamal | Retired Prof. SLIET, Longowal | International Conference of Communication & Computing, SBSSTC, Ferozepur  8 to 9 august 2014 |
| 2. | Dr. Shakti Kumar | Director, Yamna Group of Information, Yamunanagar | International Conference of Communication & Computing, SBSSTC, Ferozepur  8 to 9 august 2014 |
| 3. | Dr. Surinder Singh Sodhi | Associate Prof. ECE, SLIET Longowal | Photonics 21st to 25th oct. 2013 |
| 4. | Dr. Rajneesh Talwar | Professor & Principal, CGC Landran | Photonics 21st to 25thoct. 2013 |
| 5. | Dr. Manjit Singh Bhamrah | Professor ECE, UCOE, Punjabi University, Patiala | Photonics 21st to 25th oct. 2013 |
| 6. | Dr. R.S Kaler | Sr. Professor, ECE, Thapar University, Patiala | Photonics 21st to 25th oct. 2013 |
| 7. | Dr. A.K. Tyagi | Professor, DASH, SBSSTC, Ferozepur | Photonics 21st to 25th oct. 2013 |
| 8. | Dr. Anil Rose | Associate Professor, Panipat Institute of Engg. & Technology | Nature Inspired Computational Intelligence  6 to 17 May 2013 |
| 9. | Dr. Pawan Dahiya | Assistant Professor, Deen Bandu University Of Science & Technology Murthal Sonipat | Nature Inspired Computational Intelligence  6 to 17 May 2013 |
| 10. | Dr. Manoj Duhan | Professor, Deen Bandu University Of Science & Technology Murthal Sonipat | Nature Inspired Computational Intelligence  6 to 17 May 2013 |
| 11. | Dr. Nirmal singh | Retired Principal MIMIT, Malout | Nature Inspired Computational Intelligence  6 to 17 May 2013 |
| 12. | Dr. Arun Khosla | Associate Professor, NIT Jalandhar | Nature Inspired Computational Intelligence  6 to 17 May 2013 |
| 13. | J.S. Saini | Professor, Deen Bandu University of Science & technology, Murthal Panipat | Nature Inspired Computational Intelligence  6 to 17 May 2013 |
| 14. | Dr. Anil Rose | Associate Professor, Panipat Institute of Engg. & Technology | Applied Soft Computing 26th to 30th November 2012 |
| 15. | Dr. Pawan Dahiya | Assistant Professor, Deen Bandu University Of Science & Technology Murthal Sonipat | Applied Soft Computing 26th to 30th November 2012 |
| 16. | Dr. Manoj Duhan | Professor, Deen Bandu University Of Science & Technology Murthal Sonipat | Applied Soft Computing 26th to 30th November 2012 |
| 17. | Dr. Nirmal singh | Retired Principal MIMIT, Malout | Applied Soft Computing 26th to 30th November 2012 |
| 18. | Dr. Arun Khosla | Associate Professor NIT, Jalandhar | Applied Soft Computing 26th to 30th November 2012 |
| 19. | J.S. Saini | Professor, Deen Bandu University of Science & technology, Murthal Panipat | Applied Soft Computing 26th to 30th November 2012 |
| 20. | Dr. Arun Khosla | Associate Professor, NIT, Jalandhar | Intelligent Computational  Techniques 4 to 15 July 2011 |
| 21. | J.S. Saini | Professor, Deen Bandu University of Science & technology, Murthal Panipat | Intelligent Computational  Techniques 4 to 15 July 2011 |
| 22. | Dr. Pawan Dahiya | Assitant Professor, Deen Bandu University Of Science & Technology Murthal Sonipat | Intelligent Computational  Techniques 4 to 15 July 2011 |
| 23. | Dr. Manoj Duhan | Professor, Deen Bandu University Of Science & Technology Murthal Sonipat | Intelligent Computational  Techniques 4 to 15 July 2011 |
| 24. | Dr. Nirmal singh | Retired Principal MIMIT, Malout | Intelligent Computational  Techniques 4 to 15 July 2011 |
| 25. | Dr. Anil Rose | Associate Professor, Panipat Institute of Engg. &Technology | Intelligent Computational  Techniques 4 to 15 July 2011 |

25. Seminars/Conferences/Workshops organized & the source of funding

a) National b) International

a)National

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Module Description** | **Any other contributory Inst./ Industry** | **Developed / organized by** | **Duration** | **Resource Persons** | **Target Audience** | **Usage and citation etc.** |
| Organizing Two-Week STC by ECE deptt. 4-15 July 2011 | AICTE sponsored | Dr. Satvir Singh (ECE) | Two weeks | Dr. Satvir Singh, Dr J S Saini, Dr Arun Khosla, Dr Rakesh Sharma, Dr A. K Tyagi, Dr Neel Kanth Grover | B.Tech, M.Tech, Phd students and Faculty | Project designing, Research |
| Organized workshop under the name of “Network security“ | Institution | Mr Vishal sharma | Two Day | Appin Technology, New Delhi | M.Tech, Phd and B.Tech students and Faculty | Practical usage Project designing |
| One week TEQIP Course organized by ECE Deptt. From (26th Nov. 2012 to 30th Nov. 2012) | Department | Dr. Satvir Singh (ECE)  Vikram Mutneja  Inderjit Singh Gill | One WEEK | Dr. Satvir Singh, Dr J S Saini, Dr Arun Khosla, Dr Rakesh Sharma, Dr .Neel Kanth Grover | M.Tech, Phd and B.Tech students and Faculty | Project designing, Research |
| Hands on Training on Ansoft HFSS Software | TEQIP Phase-II Sponsored | Mrs. Rajni | Two days | Mr. Raja  Innovent Engg. Solutions Pvt. Ltd.,Bangalore | M.Tech, Phd and B.Tech students and Faculty | Project designing, Research |
| Hands on Training on Labview Software | TEQIP Phase-II Sponsored | Dr. Satvir Singh | Two days | Mr.Vipin Sarin  Maffick Instruments, Ambala | M.Tech, Phd and B.Tech students and Faculty | Project designing, Research |
| One week course by ECE Deptt.on “Recent Trends in Optical and Wireless Communication System Design” (9th Sept 2013 to 13h Sept.. 2013) | TEQIP Phase-II Sponsored | Mr. Sanjeev Dewra,  Mrs. Rajni,  Mr. Vishal Sharma,  Ms. Jaswinder Kaur, Mr. Vikram Mutneja | One week | Experts from Industry | M.Tech, Phd and B.Tech students and Faculty | Project designing, Research |
| One week course by ECE Deptt. on Digital Image, Video and Medical Image Processing (23Sept. 2013 to 27th Sept.. 2013) | TEQIP Phase-II Sponsored | Mr. Sanjeev Dewra,  Mrs. Rajni,  Mr. Amit Grover  Ms. Navdeep Kaur, Mr. Vikram Mutneja | One week | Experts from Industry | M.Tech, Phd and B.Tech students and Faculty | Project designing, Research |
| One week course by ECE Deptt. on “Photonics” (21Octth 2013 to 25h Oct. 2013) | TEQIP Phase-II Sponsored | Mr. Sanjeev Dewra, Mrs. Jaswinder Kaur  Mr. Vishal Sharma, Mr. Chakshu Goel | One week | Dr. R.S.Kler, Dr. A.K. Tyagi, and Experts from Industry | M.Tech, Phd and B.Tech students and Faculty | Project designing, Research |

**b)International**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Module Description** | **Any other contributory Inst./ Industry** | **Developed / organized by** | **Duration** | **Target Audience** | **Usage and citation etc.** |
| International Conference on computing and communication systems | TEQIP Phase-II Sponsored | Dr. Satvir Singh, Dr. Vishal Sharma | 2 Days | M.Tech, Phd and B.Tech students and Faculty (Internal & External) | Promoting Research & development |

26. Student profile programme/coursewise:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Name of Course /Programming**  **(Refer Question No. 4)** | **Applications Received** | **Selected** | **Enrolled** | | **Pass Percentage** |
| **\*M** | **\*F** |
| B.Tech ECE(2009-13) |  | 108 | 77 31 | | 85% |
| B.Tech ECE (2010-14) |  | 114 | 76 38 | | 78% |

\*M=Male \*F=Female

27. Diversity of Students

|  |  |  |  |
| --- | --- | --- | --- |
| **Name of the Course** | **% of students from the same state** | **% of students from the other state** | **% of students from abroad** |
| For UG Course | | | |
| **B.Tech ECE** | 61.45 | 38.55 | Nil |
| For PG Course | | | |
| **M.Tech ECE** | 82.25 | 17.75 | Nil |

28. How many students have cleared national and state competitive examinations such as NET,SLET,GATE,Civil services,Defense services,etc.?

|  |  |
| --- | --- |
| **Competitive Exam.** | **No of student cleared** |
| NET | 0 |
| SLET | 0 |
| GATE | 9 |
| CIVIL Services | 0 |
| DEFENSE | 2 |
| CAT | 2 |

29. Student progression

|  |  |
| --- | --- |
| **Studentprogression** | **Against%enrolled** |
| UG to PG | 12.28 |
| PG to M.Phil. | Nil |
| PG to Ph.D. | 3 |
| Ph.D. to Post-Doctoral | Nil |
| **Employed**  •Campusselection  •Other than campus recruitment | 11  3 |
| Entrepreneurship/Self-employment | Nil |

30. Details of Infrastructural facilities a) Library

b) InternetfacilitiesforStaff&Students

c) Class rooms with ICT facility d) Laboratories

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Library :-** | Department has one separate library consisting of 100 books , Projects reports ,Training reports and Thesis reports of PG students apart from central Library . In department Library have been provided facility of internet access for accessing Journals like IEEE, Science Direct etc. | | | |
| **Internet Facilities :-** | Department has sufficient internet facility with 80 access points in different locations apart from the Wi-Fi facility is available in all over campus | | | |
| **Laboratories :-** | | All Labs of ECE Department are well equipped with state of the art infra structural facilities like Multimedia Projectors , Electronic Podiums and Internet accessibility | | |
| (A) DEPARTMENTAL LABS | |  |  |  |
| Sr. No. | Name of the Course | Name of the laboratory / workshop | Total Area of lab/workshop(Sq. m.) | Major Equipment |
| 1. | B.Tech ECE | AIC/Linear Integrated & Circuit Lab | 102 | Integrated Circuits Kits, CROs, Function generators, Power Supplies, DMMs |
| 2. | B.Tech ECE | NED/EDC Lab | 102 | Basic Electronics Kits, CROs,Function generators,Power Supplies,DMMs, DSO |
| 3 | B.Tech ECE | Microwave Lab | 102 | Microwave Trainers,Klystron & Gun Diode based |
| 4 | B.Tech ECE | Microprocessor/ Microcontroller Lab | 102 | Basic Educational Microprocessor Kits (8085 & 8086),Universal Programmer,a wide range of Interface Cards,Microcontroller kits,PIC ,AVR & ARM7 Microcintrollers,Microcontroller Programme H/W Tools |
| 5 | B.Tech ECE | Analog & Digital Communication Lab | 102 | Communication Trainers,CROs, Function Generators,Digital Strorage Oscilloscopes, Audio Frequency Generators , DSO 's |
| 6 | B.Tech & M Tech (ECE) | VLSI/ DSP Lab | 102 | 30,IBM,-IV Computers,Software:COMMSIM, PSPICE 9.1, MATLAB- R2006a, Active HDL 6.3 PE.Tanner Tool, Xilinx Software , Lab View software , ansoft HFSS Software |
| 7 | B.Tech ECE | Digital Electronics / DCLD lab | 102 | Digital Electronics Trainer like as ,FF Trainers, Adders, MUX, DEMUX, ALU, ENcoders, Decoders Tainers,CRO |

31. Numberofstudentsreceivingfinancialassistancefromcollege,university, governmentorotheragencies

|  |  |  |
| --- | --- | --- |
| **Sr. No.** | **Programme** | **No. of Students** |
| 1 | UG | 56 |
| 2 | PG | 32 |

32. Details on student enrichment Programmes (speciallectures/ workshops/ seminar) with external experts

|  |  |  |  |
| --- | --- | --- | --- |
| **Sr.** | **Title/Field** | **Date** | **Name of Industry** |
| 1 | Expert Lecture on “Embedded Systems Design & Development” | 08-09 Aug. 2013 | RAD Innovations, Mohali |
| 2 | Expert Lecture on "Training and Placement Guidance" | 13 Aug.. 2013 | E2matrix, Phagwara |
| 3 | Workshop on Robotics | 25-28 Oct., 2013 | Advance Technology, Chandigarh |
| 4 | Expert Lecture on Cloud Computing | 41738 | Icon Software Technology, Ludhiana |
| 5 | Expert Lecture on Telecommunications | 41731 | Rawelcom Services Pvt. Ltd., Delhi |

33. Teaching methods adopted to improve student learning

1. Lecture delivering with in depth-discussion
2. Class Quizzes
3. Tutorials
4. Assignments
5. Mid Semester Tests (MSTs)
6. Demonstration (Projects designing & Lab work)
7. Presentations
8. Expert Lectures from Outside world

34. Participation in Institutional Social Responsibility(ISR) and Extension activities: Nil

35. SWOC analysis of the department and Future plans

**Strength**

1. Well strength qualified & research oriented faculty
2. Furnished and advance facility equipped labs
3. Active Training & placement cell
4. Active counseling & Mentoring system in the department
5. Active technical society “SELCOME” for overall development of students
6. MoUs with MNCs companies

**Weaknesses**

1. Rural and Border area
2. Student exchange programs in eminent national and international universities/industries

**Opportunities**

1. Collaboration with eminent national and international universities/industries for institutional industries and placements
2. Collaboration with eminent national and international research labs/industries to make career in research industry

**Challenges**

1. Average academic-background students from rural and border areas
2. Designing of curriculum according to industry needs

**Evaluative Report of *Electrical Engineering* Department**

The Self-evaluation of everydepartment may be provided separately in about

3-4 pages,avoiding the repetition of the data.

1. Name of the department *Electrical Engineering*

2. Year of Establishment *2003*

3. Names of Programmes/Courses offered(UG,PG,M.Phil.,Ph.D.,Integrated

Masters;Integrated Ph.D.,etc.)

*B.Tech in Electrical Engineering*

4. Names of Interdisciplinary courses and the departments/units involved

*BTHU101, BTHU102, HVPE101, BTME101, BTCS101, EVSC101, BTME102,*

*BTME103, BTEC404,BTEC409, BTHU-6XX*

5. Annual/semester/choice based credit system (programmewise) *Semester System*

6. Participation of the department in the courses offered by other departments

Basic Electrical and Electronics Engineering *BTEE101*

Basic Electrical and Electronics Engineering lab *BTEE102*

7. Courses in collaboration with other universities,industries, foreign institutions, etc.

*NIL*

8. Details of courses/programmes discontinued ( ifany)with reasons *NIL*

9. Numberof Teachingposts

|  |  |  |
| --- | --- | --- |
|  | **Sanctioned** | **Filled** |
| Professors | 1 | 0 |
| AssociateProfessors | 2 | 1 |
| Asst.Professors | 10 | 7 |
| Lecturers | 0 | 05  Against the vacancies of Professor-01  Asso. Prof.-01  Asstt. Prof=03 |

10. Faculty profile with name, qualification,designation, specialization ,(D.Sc./D.Litt.

/Ph.D./M.Phil.etc.,)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Sr. No. | Name | Qualification | Designation | Specialization | No.ofYears of Experience | No.ofPh.D.  Students  guidedforthe  last4years |
|  | Dr. Kultar Deep Singh | PhD | Associate Professor | Power System | 8yrs | 3 students regst. |
|  | Mrs. Navneet Kaur | M.Tech | Assistant Professor | Power System | 13yrs | - |
|  | Ms. Anupam Mittal | M.Tech | Assistant Professor | Power System | 9 yrs | - |
|  | Mrs. Maninder | M.Tech | Assistant Professor | Power System | 1yr.+9 month | - |
|  | Mr. Harinderpal Singh | PhD (Pursuing) | Assistant Professor | Power System | 3yrs 8 months | - |
|  | Mr. Shanky Goyal | M.Tech | Assistant Professor | ECE | 1yrs 2 months | - |
|  | Mr. Inderjeet Singh Sandhu | M.Tech | Assistant Professor | Power System | 1yrs10 months | - |
|  | Mr. Vishal Puri | PhD (Pursuing) | Assistant Professor | EEE | 2yrs | - |
|  | Mr. Shammi Bahel | M.Tech ( pursuing) | Lecturer |  | 2yrs 6 months | - |
|  | Mr. Sandeep Kumar | B.Tech | Lecturer |  | 2yrs | - |
|  | Mr. Major Singh | M.Tech ( pursuing) | Lecturer |  | 3 yrs 2 months | - |
|  | Ms. Manpreet Kaur | M.Tech ( pursuing) | Lecturer | Power System |  | - |

11. List of senior visiting faculty *NIL*

12. Percentage of lectures delivered and practical classes handled (programmewise)

By temporary faculty *68%*

13. Student-Teacher Ratio (programme wise)

*According to 1:15 (given by AICTE)*

*Total no. of sanctioned strength of 2nd, 3rd and 4th year= 180*

*STR= 180/15 = 12*

14. Number of academics up port staff (technical) and administrative staff; sanctioned and filled  *Seven*

15. Qualifications of teaching faculty with DSc/D.Litt/Ph.D/MPhil/PG.

16. Number of faculty with on going projects from a) National b) International funding agencies and grants received

*NIL*

17. Departmental projects funded by DST-FIST;UGC, DBT, ICSSR,etc.and total grants received

*NIL*

18. Research Centre/ facility recognized by the University

*NIL*

19. Publications:

**Faculty Name: Dr. Kultar Deep Singh**

• Kultar Deep Singh and Smarajit Ghosh, “A new efficient method for load flow solution of radial distribution networks”, Przeglad Elektrotechionzy (Electrical Review),Vol.12a, pp 66-73,2011.

• Kultar Deep Singh and Smarajit Ghosh, “Voltage Stability index and line loadibility index for radial power distribution networks”, International review of Electrical engineering (IREE), Vol.6, No.7, pp-3111-3121, 2011.

**Faculty Name: Ms. Anupam Mittal**

• Anupam Mittal, Divya Gupta and Rajni, “Genetic algorithm based economic load dispatch solution”, ISPJEE, ISSN 2250-0537, Vol.1, Issue 1,2011.

• Anupam Mittal and Divya Gupta, “Comparison of optimization techniques to solve economic load dispatch problem”, accepted for presentation and Publication in National Conference on Recent Advancements & Innovations in Science and Engineering (RAISE 2012), to be held atGuru Ramdas Institute of Engineering and Technology, Bathinda, Punjab, India,2012.

**Faculty Name: Mrs. Maninder**

• Maninder, Kathuria R. S. and Grover S. “Using agricultural residues as a biomass briquetting: an alternative source of energy”, IOSR Journal of Electrical and Electronics Engineering (IOSRJEEE), Volume 1, Issue 5 ,pp 11-15, ISSN: 2278-1676,2012, Impact factor: 1.45

• Sonia Grover, Rupinderjit Singh Kathuria and Maninder Kaur, “Energy Values and Technologies for Non woody Biomass: as a clean source of Energy”, IOSR Journal of Electrical and Electronics Engineering (IOSRJEEE), Volume 1, Issue 1, pp. 10-14, ISSN : 2278-1676,2012, Impact factor: 1.45.

• Maninder, Inderjeet Singh Sandhu, “Radius wise Analysis of Biomass for Power Generation in

Punjab State”, International Journal of Engineering Research & Technology (IJERT) Vol. 2 Issue 7, July – 2013, ISSN: 2278-0181, pp. 2163-2167, Impact Factor: 1.76.

• Inderjeet Singh Sandhu, Maninder, “ Analysis of losses in power system and its economic consequences in power sector” ,International Journal of Enhanced Research in Science Technology & Engineering, ISSN: 2319-7463 Vol. 2 Issue 7, July-2013, pp: (90-98), Impact Factor: 1.25.

• Inderjeet Singh Sandhu , Rupinderjit Singh Kathuria , Maninder, “Maximization of Revenue Generation by Analysis of Losses in Distribution System Using Matlab Simulation” , International Journal of Engineering Research & Technology (IJERT) Vol. 2 Issue 9, September – 2013, ISSN: 2278-0181, pp. 2113-2118, Impact Factor:1.76.

**Faculty Name: Mr. Harinderpal Singh**

• International Conference: H.P. Singh, Y.S. Brar, D.P. Kothari, “ Multiobjective load dispatch using particle swarm optimization, ” Proceeding of 8th IEEE conference on Industrial Electronics and Application(ICIEA2013), Melbourne, VIC, Australia, pp. 272-277, 2013

• International Conference: H.P. Singh, Y.S. Brar, D.P. Kothari, “ Combined active and Reactive power dispatch using particle swarm optimization, ” Proceedings of Informing Science & IT Education Conference (InSITE), Wollongong, NSW, Australia, pp. 295-304, 2014

• International Journal: A. Kaur, H.P Singh, A. Bharadwaj, “Analysis of Economic Load Dispatch Using Genetic Algorithm, ” International Journal of Application or Innovation in Engineering & Management (IJAIEM),Vol.3.(3), pp. 240-246, 2014

**Faculty Name: Mr. Inderjeet Singh**

• Inderjeet Singh Sandhu, Maninder, “ Analysis of losses in power system and its economic consequences in power sector” ,International Journal of Enhanced Research in Science Technology & Engineering, ISSN: 2319-7463 Vol. 2 Issue 7, July-2013, pp: (90-98), Impact Factor: 1.25.

• Inderjeet Singh Sandhu , Rupinderjit Singh Kathuria , Maninder, “Maximization of Revenue Generation by Analysis of Losses in Distribution System Using Matlab Simulation” , International Journal of Engineering Research & Technology (IJERT) Vol. 2 Issue 9, September – 2013, ISSN: 2278-0181, pp. 2113-2118, Impact Factor:1.76.

•Maninder, Inderjeet Singh Sandhu, “Radius wise Analysis of Biomass for Power Generation in

Punjab State”, International Journal of Engineering Research & Technology (IJERT) Vol. 2 Issue 7, July – 2013, ISSN: 2278-0181, pp. 2163-2167, Impact Factor:1.76.

**Faculty Name: Mr. Shanky Goyal**

• Low Leakage Multi Threshold Level Shifter Design using Sleepy Keeper.D.O.I 10.5120/12671-9038

• Design of Low Leakage Multi Threshold (Vth) CMOS Level Shifter DOI: 10.11591/ijece.v3i5.3166

**Faculty Name: Mr. Shammi Bahel**

• QOS Estimation of IEEE 802.3 under the Influence of IntraDomain Routing Protocols. Volume 4 Number 2 September 2013 pp.1-7 ISSN-0973-7391

**Faculty Name: Mr. Vishal Puri**

• Performance analysis matched filter and MMSE filter Volume 2 • Number 2 IRACST 2012

**Faculty Name: Ms. Manpreet Kaur**

• Harnessing solar energy technologies: Basic review

**Total no. of papers published in national/international journals by faculty and students = 20**

20. Areas of consultancy and income generated *NIL*

21. Faculty as members in a) National committees b) International Committees c) Editorial Boards…. *NIL*

22. Student projects

a) Percentage of students who have done in-house projects including inter departmental/ programme *100%*

b)Percentage of students placed for projects in organizations outsidet he institution i.e. in Research laboratories / Industry/ other agencies *100%*

23.Awards/ Recognitions received by faculty and students

24.List of eminent academicians and scientists/ visitors to the department

*Mr. Jon Borkent in Aug.2013*

25. Seminars/Conferences/Workshopsorganized&thesourceoffunding a) National

Workshop

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Sr.No | Name | Organized by | Organized for | Dates | Funding |
| 1 | Microcontroller and PLC | Electrical Engg Dept with Advance tech Chandigarh | Batch 2011 (EED) | 2/04/14 to 4/04/14 | TEQIP II |

FDP

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Sr.No | Name | Organized by | Organized for | Dates | Funding |
| 1 | PLC | Electrical Engg Dept with IATC Siemens Chandigarh | Faculty of Electrical and Electronics Engg | 2/09/13 to 6/08/13 | TEQIP II |
| 2 | Moelling and simulation in Advanced Matlab Enviroment | Electrical Engg Dept with Mathworks through Design Tech Jalandhar | All the faculty members of Engg colleges | 25/11/13 to 29/11/13 | TEQIP II |

Industrial visit

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Sr.No | Organized by | Name of industry with address | Organized for | Dates | Funding |
| 1 | Electrical Engg Dept | IATC SIEMENS, PKL | Students batch 2010-2014 | 20/09/13 | TEQIP II (IIIC) |
| 2 | Electrical Engg Dept | IATC SIEMENS, PKL | Students batch 2011-2015 | 28/10/13 | TEQIP II (IIIC) |
| 3 | Electrical Engg Dept | 220KV SUBSTATION FZR CANT | Students batch 2011-2015 | 28/01/14 | NIL |
| 4 | Electrical Engg Dept | ADVANCE TECH CHANDIGARH | Students batch 2012-2014 | 24/03/14 | TEQIP II |

b) International Conference

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Sr.No | Name | Organized by | Organized for | Dates | Funding |
| 1 | International Conference on Communication Computing & Systems (ICCCS) | Department of Electrical Engineering,  Department of Electronics & Communication Engg. and  Department of Computer Sc.& Engg. |  | 8th – 9th August 2014 | TEQIP II |

26. Student profile programme /coursewise:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Name of the Course/ Programme(refer question no.4) | Applications received | Selected | Enrolled | | Pass percentage |
| M | F |
| B-Tech 2011 | 74 | 74 | 61 | 13 | 39 |
| B-Tech 2012 | 73 | 73 | 67 | 6 | 22 |
| B-Tech 2013 | 76 | 76 | 72 | 4 | 21 |
| B-Tech 2014 | 62 | 62 | 53 | 9 |  |

\*M=Male \*F=Female

27. Diversityof Students

|  |  |  |  |
| --- | --- | --- | --- |
| Name of the course | % of students from the same state | % of students from other states | % of students from abroad |
| B-Tech 2011 | 55% | 45% | NIL |
| B-Tech 2012 | 73% | 27% | NIL |
| B-Tech 2013 | 57% | 43% | NIL |
| B-Tech 2014 | 42% | 58% | NIL |

28. How many students have cleared national and state competitive examinations such as NET, SLET,GATE,Civil services ,Defense services,etc.?

Gate

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Roll No. | Batch | Selection |
| Shama Bansal | 90660518354 | 2009-2013 | M.tech at Punkab University Chandigarh |

Defense services

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Roll No. | Batch | Selection |
| Inderpreet Kaur | 80406109033 | 2008-2012 | Selection in Air force through SSB |

29. Student progression

|  |  |
| --- | --- |
| **Studentprogression** | **Against%enrolled** 2013 pass out batch |
| UG to PG | 7/73(Batch 2013 pass out) |
| PG to M.Phil. |  |
| PG to Ph.D. |  |
| Ph.D. to Post-Doctoral |  |
| **Employed**  •Campus selection  •Other than campus recruitment | Campus Selection-3  Other than campus recruitment-16 |
| Entrepreneurship/Self-employment |  |

30. Details of Infrastructural facilities

a) Library

Carpet area of library (in m2) 494

Reading space (in m2) 208

Number of seats in reading space 120

Number of users (issue book) per day 090

Number of users (reading space) per day 120

Timing: during working day, weekend, and vacation 9:00am to 5:00pm

Number of library staff 06

Number of library staff with a degree in library 04

Management

Computerization for search, indexing, issue returns No

Record Bar coding used No

Library services on Internet/Intranet INDEST or other similar membership archives. Yes

Number of titles 6480 Number of volumes 18500

Availability of digital library content: Yes

If available, mention number of course, number of e-books, Etc Yes .

Availability of an exclusive server: Yes

Availability over Internet/Intranet: Yes

Availability of exclusive space/room: Yes

Number of users per day 25

b) Internet facilities for Staff & Students

*Yes, Internet facility is there in labs and faculty rooms. And whole Campus is Wi-Fi.*

c) Class rooms with ICT facility *No*

d) Laboratories

|  |  |
| --- | --- |
| **Name of Lab.** | **Major Equipments** |
| Machine I Lab | **Transformer :**1-phase,2KVA  **Transformer** :1-phase,3KVA 440/220V  **Auto Transformer** :1-phase,input 230 output 270V,15A  **DC Shunt Motor Gen. Set** :3HP ,220V 1500rpm  **DC Shunt Motor**: 3HP,1500rpm 220V, complete setup  **DC Series Motor**: 3HP, 1500rpm 220V with pony brake loading arrangement complete setup with control panel.  **DC Compound. Motor** :3HP, 1500rpm 220V with pony brake loading arrangement complete setup with control panel.  **DC Motor Starter :** 2 point, 3 point, 4 point  **DC Power Supply.** DC Regulated Power supply 20 KW |
| Machine II Lab | **Induction Motor:** 3-phase 415V, 5HP 1440rpm with loading arrangement  **Kramer Control Slip ring Motor flexible coupled to DC shunt Gen** 3-phase 5HP phase wound 415V GEN.-2,2 KW,230V  **Starter**(a)Auto Transformer starter 3phase 415V  b) Star-Delta Starter-: 3Phase 415V  c) Direct On Line Starter-: 3Phaase 415V  **Slipring Motor:** 3 Phase 415V 1440 rpm  **Single Phase Induction Motor:** Single Phase induction motor capacitor start 230v, 1420rpm, 50Hz, 1.0HP, supplied with DOL starter.  **3Phase Alternator with dc moter set** |
| Electrical Measurement lab | **CRO**  **Function Generator**  **Anderson Bridge**  **Wein Bridge**  **Potentiometer**  **LVDT**  **Function Generator**  **LCR-Q meter**  **Kelvin Bridge**  **Stepper Motor** |
| Control and instrumentation Lab | **AC Position Servo System**  **Pressure Transducer**  **Electromagnetic Transducer**  **PID Controller**  **DC Position control Servo System**  **Compensating Design**  **Synchro Transmitter Receiver pair**  **Capacitive Transducer**  **RTD Sensor**  **LDR**  **Photo Cell** |
| Power Electronics lab | **Micro Processor Based Firing control kit**  **Jones Chopper kit**  **SCR**  **UJT**  **Series Inverter**  **Single phase cyclo- conerter**  **Power Electronics Trainer** |
| Basic Electrical and Electronic Lab | **Energy Meter**  **Wattmeter**  **Frequency Meter**  **Variac**  **Power Factor Meter**  **Rheostat**  **Voltmeter**  **Ammeter**  **Inducatnce**  **Capacitor**  **Meggar** |
| Computer lab (CAPSA Lab, PSD lab, MATLAB) | **Computer System**  **UPS 5Kva**  **LCD Computer projector & Screen**  **Computer Chairs**  **Printer Lazer**  **Dotmatrix Printer wipro 1070 LQ**  **MATLAB Software R 2012 B**  **Etap Software**  **Projector**  **Screen**  **Air Conditioners 2ton With Stablizer** |

31. Number of students receiving financial assistance from college, university,

Government or other agencies

|  |  |
| --- | --- |
| Category | No of receiving assistance |
| SC/ ST Students | 35 |
| Economically weaker Students | 11 |
| Exigency Student | 2 |
| Bihar Scholarship Students | 18 |
| Sikh minority Students | 4 |
| Student Aid Found Students | 4 |
| Total | **74** |

32. Details on student enrichment programmes (special lectures/workshops/

seminar)with external experts

33. Teaching methods adopted to improve student learning

*i) Video lectures*

*ii) EDUSAT Lectures*

*iii) PPT*

*iv) Seminar*

*v) Industrial Visits*

34. Participation in Institutional Social Responsibility (ISR) and Extension activities

*NIL*

35. SWOC analysis of the department and Future plans

Swot analysis of Electrical Engineering Department

Strengths

1. Qualified and dedicated faculty and staff.

2. Good team spirit in the department.

3. State of art labs.

4. Good infrastructure

5. Good quality of students.

Weaknesses

1. More permanent faculty members required.

2. Camus placements are less.

Opportunities

1. M. Tech. Programme can be started.

Challenges

1. Placement scenario is not good due to recession.

2. Admission scenario is not good due to mushrooming of private engineering colleges.

Future targets.

* + To start M. Tech. programme in Power system Engineering
* To fetch grant from AICTE/DST/PTU for R & D activities
* To strengthen departmental library facility
* To encourage faculty to achieve higher qualification
* Develop interdisciplinary research activities
* Maintaining and utilizing better contact to our alumni to improve placements
* To focus more on campus placements

**Evaluative Report of MECHANICAL ENGINEERING Department**

The Self-evaluation of every department may be provided separately in about

3-4 pages, avoiding the repetition of the data.

1. Name of the department :MECHANICAL ENGINEERING

2. Year of Establishment : 1995

3. Names of Programmes/Courses offered(UG,PG,M.Phil.,Ph.D.,Integrated

Masters; IntegratedPh.D.,etc.) : UG – BTech (Mechanical) & PG- MTech (Mechanical)

4. Names of Inter disciplinary courses and the departments/units involved:

|  |  |  |  |
| --- | --- | --- | --- |
| Sr No. | Name of Interdisciplinary courses | Subject / Course Code | Departments/Units involved |
| 01 | Engineering Physics | BTPH101 | Deptt. of Science and humanities( DASH) |
| 02 | Engineering Mathematics-I | BTAM101 | Deptt. of Science and humanities( DASH) |
| 03 | Communicative English | BTHU101 | Deptt. of Science and humanities( DASH) |
| 04 | Basic Electrical and  Electronics Engineering | BTEE 101 | Electrical Engg Deptt |
| 05 | Human Values and  Professional Ethics | HVPE101 | Deptt. of Science and humanities( DASH) |
| 06 | Manufacturing Practice | BTMP101 | Central Workshop |
| 07 | Engineering Chemistry | BTCH 101 | Deptt. of Science and humanities( DASH) |
| 08 | Engineering Mathematics-I | BTAM101 | Deptt. of Science and humanities( DASH) |
| 09 | Fundamentals of Computer  Programming and IT | BTCS 101 | Comp. Engg. Deptt. |
| 10 | Environmental Science | EVSC 101 | Deptt. of Science and humanities( DASH) |
| 11 | Engineering Mathematics-II | BTAM102 | Deptt. of Science and humanities( DASH) |
| 12 | Mathematics -III | BTAM-500 | Deptt. of Science and humanities( DASH) |
| 13 | HRM | HU-252/HU251/DE13/ME25 | Deptt. of Science and humanities( DASH) |
| 14 | Total Quality Management | DE/ME2.5 | Mech. Engg. Deptt. |

5. Annual/semester/choicebasedcreditsystem(programmewise):

SEMESTER SYSTEM

6. Participation of the department in the courses offered by other departments

|  |  |  |
| --- | --- | --- |
| Sr No | Courses offered by other departments | Name of the department |
| 01 | Strength of Materials- I | Civil, Chemical |
| 02 | Total Quality Management | ECE, Chemical |

7. Courses in collaboration with other universities,industries,foreign institutions,

etc. NIL

8. Details ofcourses /programmes discontinued(ifany)withreasons

NIL

9. Numberof Teaching posts

|  |  |  |
| --- | --- | --- |
|  | **Sanctioned** | **Filled** |
| Professors | 03 | 01 |
| AssociateProfessors | 06 | 14 |
| Asst.Professors | 21 | 15 |

10. Faculty profile with name,qualification,designation,specialization,(D.Sc./D.Litt.

/Ph.D./M.Phil.etc.,)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Name of the faculty** | **Qualification,** | **Designation and date of joining the institution** | **Area of Specialization** | **Teaching Experience** | **Industrial Experience** | **PhD**  **Guided**  **(Last 4 Yrs)** |
| Dr. T.S. Sidhu | Ph.D Mechanical Engg, M.Tech Mechanical Engg  B.Tech, ME  MBA | Professor,  10.12.1996 | Material Engg | 24 | nil | **03** |
| Dr. M. K. Kushwaha | Ph.D, Tribology of Nano structured composite, M.Tech-Engg Materials  B.Tech, ME | Associate Professor  17.08.1995 | Tribology of nano structured composite, Engg materials | 24 | 5.5 |  |
| Mr.Nripjit Singh | Ph.D Mechanical Engg,  M.Tech Production Engg  B.Tech, PE | Associate Professor  30.05.1995 | Composite materials and Production | 19 | nil |  |
| Dr.A. K. Asati | Ph.D  Thermal Engg. | Associate Professor  30.06.1995 | Thermal engineering | 21.5 | 1.5 |  |
| Dr.N. K. Grover | Ph.D.-ME  M.Tech-Rotodynamic Engg  B.Tech-ME | Associate Professor  16.07.1996 | Thermal  engineering, modelling and  simulation | 18.0 | 1.0 |  |
| Dr. Rakesh Sharma | Ph.D.-ME&IE  M.Tech-ME  B.Tech-ME&PE | Associate Professor  22-06-1996 | CAD/CAM/CIMS  and Production  Engineering | 18 | NIL |  |
| Dr. Tejeet Singh | Ph.D-ME  M.Tech-IE  B.Tech-IE | Associate Professor  25-07-1997 | Machine Design and  Industrial Engg | 17 | NIL |  |
| Mr. Sukhwant Singh | B.E.- Production Engg | Associate Professor  05-07-1996 | ---- | 18 | NIL |  |
| Mr. Vivek Sood | B.Tech-IE | Associate Professor  25.06.1996 | ---- | 18 | NIL |  |
| Mrs. Vaishali Goyal | M.Tech-ME&PE  B.Tech-PE | Associate Professor  31.07.1997 | Production Engg | 17 | 3 |  |
| Mr. Gazal Preet Singh | M.Tech-IE  B.Tech-IE | Associate Professor  01.09.1998 | Industrial Engg | 16 | 1 |  |
| Dr. Rajbir Singh Bhatti | Ph.D-ME  M.Tech-IE  B.Tech-IE | Associate Professor  07-09-1998 | Industrial Engg and  Supply chain  optimization | 15.5 | NIL |  |
| Mr. Manjider Singh | PhD-Industrial& PE  M.Tech-IE  B.Tech-IE | Associate Professor  01.09.1998 | Industrial Engg | 15 | NIL |  |
| Mr. Ravinder Pal Singh | PhD-Persuing  M.Tech-PE  B.Tech-ME | Associate Professor 28.08.1998 | Production  Engineering | 16 | NIL |  |
| Mr. J.K. Aggarwal | PhD-Persuing  M.Tech-ME&PE  B.Tech-PE | Associate Professor  15.04.1997 | Production  Engineering | 17.5 | 7 |  |
| Mr. Munish Kumar | M.Tech-ME  B.Tech-PE | Assistant Professor 19.10.2001 | Mechanical Engg. | 12.5 | NIL |  |
| Mr. D.P. Kashyap | M.Tech-ME  B.Tech-PE | Assistant Professor  24.08.2004 | Mechanical Engg. | 14 | 1 |  |
| Mr. Gurnam Singh | M.Tech-PE  B.Tech-ME | Assistant Professor  02.09.2004 | Production Engg. | 14 | NIL |  |
| Mr. JwalaParshad | PhD-Persuing  M.Tech-PE  B.Tech-ME | Assistant Professor  14.01.2011 | Production Engg. | 15 | 1.5 |  |
| Mr. Sukhjinder Singh | PhD-Persuing  M.Tech-PE  B.Tech-ME | Assistant Professor  16.12.2010 | Production Engg. | 5.5 | NIL |  |
| Mr. Veerpal Soi | M.Tech-Persuing  B.Tech-PE | Assistant Professor | --- | 5.5 | 5.0 |  |
| Nitin Kapoor | M.Tech-ME  B.Tech-ME | Assistant Professor | --- | 1.0 | NIL |  |
| Navjotpal Singh | M.Tech-ME  B.Tech-ME | Assistant Professor | --- | 7 month | NIL |  |
| Jaspreet Singh Mann | M.Tech-ME  B.Tech-ME | Assistant Professor | --- | 1 month | NIL |  |
| Hitesh Uppal | M.Tech-Persueing  B.Tech-ME | Assistant Professor | --- | 1 yr 1month | NIL |  |
| Mukesh Kumar | B.Tech-ME | Assistant Professor | --- | 1 yr 1month | NIL |  |
| Jaskaran Singh | B.Tech-ME | Assistant Professor | --- | 1 month | NIL |  |
| Ritika | B.Tech-CHE | Assistant Professor | --- | 1 month | NIL |  |

11. List of senior visiting faculty : NIL

12. Percentage of lectures delivered and practical classes handled (programmewise)

By temporary faculty :

Percentage of lectures = 36

Percentage of practicals = 45

13. Student-Teacher Ratio(programmewise)

STR = (*x* + *y* + *z*)/*N*1

Where x = Number of students in 2nd year of the program

y = Number of students in 3rd year of the program

z = Number of students in 4th year of the program

N1 = Total Number Faculty Members in the program (by considering fractional load)

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Year** | **x** | **y** | **z** | **x +y+z** | **N1** | **STR** | **Assessment (Max. is 20)** |
| 2011-2012 | 155 | 143 | 106 | 404 | 16 | 25.25 | 11.88 |
| 2012-2013 | 150 | 155 | 143 | 448 | 18 | 24.89 | 12.05 |
| 2013-2014 | 151 | 150 | 155 | 456 | 21 | 21.71 | 13.82 |
| **Av. Assessment** | | | | | | | **12.58** |

14. Number of academic support staff (technical)and administrative staff; sanctioned and filled

|  |  |  |
| --- | --- | --- |
|  | **Sanctioned** | **Filled** |
| Lab Supdt | 01 | 01 |
| Sr Tech | 01 | 01 |
| Tech Gr1 | 02 | 02 |
| Jr Tech | 01 | 01 |
| Lab Att | 02 | 02 |
| Clerk | 01 | 01 |
| Peon | 01 | 01 |

15. Qualifications of teaching facultywith DSc/D.Litt/Ph.D/MPhil/PG.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Name of the faculty** | **Qualification,** | **Designation and date of joining the institution** | **Area of Specialization** | **Teaching Experience** | **Industrial Experience** | **PhD**  **Guided**  **(Last 4 Yrs)** |
| Dr. T.S. Sidhu | Ph.D Mechanical Engg, M.Tech Mechanical Engg  B.Tech, ME  MBA | Professor,  10.12.1996 | Material Engg | 24 | nil | **03** |
| Dr. M. K. Kushwaha | Ph.D, Tribology of Nano structured composite, M.Tech-Engg Materials  B.Tech, ME | Associate Professor  17.08.1995 | Tribology of nano structured composite, Engg materials | 24 | 5.5 |  |
| Mr.Nripjit Singh | Ph.D Mechanical Engg,  M.Tech Production Engg  B.Tech, PE | Associate Professor  30.05.1995 | Composite materials and Production | 19 | nil |  |
| Dr.A. K. Asati | Ph.D  Thermal Engg. | Associate Professor  30.06.1995 | Thermal engineering | 21.5 | 1.5 |  |
| Dr.N. K. Grover | Ph.D.-ME  M.Tech-Rotodynamic Engg  B.Tech-ME | Associate Professor  16.07.1996 | Thermal  engineering, modelling and  simulation | 18.0 | 1.0 |  |
| Dr. Rakesh Sharma | Ph.D.-ME&IE  M.Tech-ME  B.Tech-ME&PE | Associate Professor  22-06-1996 | CAD/CAM/CIMS  and Production  Engineering | 18 | NIL |  |
| Dr. Tejeet Singh | Ph.D-ME  M.Tech-IE  B.Tech-IE | Associate Professor  25-07-1997 | Machine Design and  Industrial Engg | 17 | NIL |  |
| Mrs. Vaishali Goyal | M.Tech-ME&PE  B.Tech-PE | Associate Professor  31.07.1997 | Production Engg | 17 | 3 |  |
| Mr. Gazal Preet Singh | M.Tech-IE  B.Tech-IE | Associate Professor  01.09.1998 | Industrial Engg | 16 | 1 |  |
| Dr. Rajbir Singh Bhatti | Ph.D-ME  M.Tech-IE  B.Tech-IE | Associate Professor  07-09-1998 | Industrial Engg and  Supply chain  optimization | 15.5 | NIL |  |
| Mr. Manjider Singh | PhD-Industrial& PE  M.Tech-IE  B.Tech-IE | Associate Professor  01.09.1998 | Industrial Engg | 15 | NIL |  |
| Mr. Ravinder Pal Singh | PhD-Persuing  M.Tech-PE  B.Tech-ME | Associate Professor 28.08.1998 | Production  Engineering | 16 | NIL |  |
| Mr. J.K. Aggarwal | PhD-Persuing  M.Tech-ME&PE  B.Tech-PE | Associate Professor  15.04.1997 | Production  Engineering | 17.5 | 7 |  |
| Mr. Munish Kumar | M.Tech-ME  B.Tech-PE | Assistant Professor 19.10.2001 | Mechanical Engg. | 12.5 | NIL |  |
| Mr. D.P. Kashyap | M.Tech-ME  B.Tech-PE | Assistant Professor  24.08.2004 | Mechanical Engg. | 14 | 1 |  |
| Mr. Gurnam Singh | M.Tech-PE  B.Tech-ME | Assistant Professor  02.09.2004 | Production Engg. | 14 | NIL |  |
| Mr. JwalaParshad | PhD-Persuing  M.Tech-PE  B.Tech-ME | Assistant Professor  14.01.2011 | Production Engg. | 15 | 1.5 |  |
| Mr. Sukhjinder Singh | PhD-Persuing  M.Tech-PE  B.Tech-ME | Assistant Professor  16.12.2010 | Production Engg. | 5.5 | NIL |  |
| Nitin Kapoor | M.Tech-ME  B.Tech-ME | Assistant Professor | --- | 1.0 | NIL |  |
| Navjotpal Singh | M.Tech-ME  B.Tech-ME | Assistant Professor | --- | 7 month | NIL |  |
| Jaspreet Singh Mann | M.Tech-ME  B.Tech-ME | Assistant Professor | --- | 1 month | NIL |  |
| Mukesh Kumar | B.Tech-ME | Assistant Professor | --- | 1 yr 1month | NIL |  |
| **Jaskaran Singh** | **B.Tech-ME** | **Assistant Professor** | **---** | **1 month** | **NIL** |  |
| Ritika | B.Tech-CHE | Assistant Professor | --- | 1 month | NIL |  |

16. Number of faculty with on going projects from

a) National

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Name of Project** | **Sponsorig**  **authority** | **Project Coordinator** | **Scheme** | **Amount** | **Year of receiving** | **Current status** |
| Total Turnaround strategy for loss making psu | AICTE | RS Bhatti | RPS Project | 2.25 Lakhs | 2012 | In Progress |
| Paramatric Study of HVOF | AICTE | TS Sidhu | RPS Project | 12.00 Lakhs | 2008 | In Process |
| Modernization of Material and Metallurgy Laboratory | AICTE | Dharmpal | MODROB  Project | 15 Lakhs | 2008 | In Progress |

b) International : NIL

17. Departmental projects funded by DST-FIST;UGC, DBT, ICSSR,etc. and total grants received

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Name of Project** | **Sponsorig**  **authority** | **Project Coordinator** | **Scheme** | **Amount** | **Year of receiving** | **Current status** |
| Total Turnaround strategy for loss making psu | AICTE | RS Bhatti | RPS Project | 2.25 Lakhs | 2012 | In Progress |
| Modernization of CAD Lab | AICTE | NK Grover | MODROB  project | 11.00 Lakhs | 2012 | Completed in 2013 |
| Paramatric Study of HVOF | AICTE | TS Sidhu | RPS Project | 12.00 Lakhs | 2008 | In Process |
| Modernization of Material and Metallurgy Laboratory | AICTE | Dharmpal | MODROB  Project | 15 Lakhs | 2008 | In Progress |
| Modernization of Foundry and Welding Laboratory | AICTE | NM Suri | MODROB  Project | 11.00 Lakhs | 2005 | Completed in 2007 |
| Development of Manufacturing Process Laboratory | AICTE | TS Sidhu | MODROB  Project | 10.00 Lakhs | 2003 | Completed in 2005 |
| Modernization of Thermal Engg Laboratory | AICTE | NK Grover | MODROB  Project | 4.00 Lakhs | 2002 | Completed in 2004 |

18. Research Centre/facility recognized by the University: NIL

19. Publications:

a) Publication perfaculty

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Name of the faculty** | **Number of research publications in journals and conference since joining** | Number of paper spublished in peerreviewed journals | Number of publications listed in international database | Monographs | ChapterinBooks | BooksEdited | Books with ISBN/ISS Nnumbers with details of publishers | CitationIndex | SNIP | SJR | Impactfactor | h-index |
| Dr. T.S. Sidhu | 114 | 38 |  |  |  |  |  |  |  |  |  |  |
| Dr. M. K. Kushwaha | 13 | 05 |  |  |  |  |  |  |  |  | 0-1.33 |  |
| Mr.Nripjit Singh | 19 |  |  |  |  |  |  |  |  |  |  |  |
| Dr.A. K. Asati | 05 |  |  |  |  |  |  |  |  |  |  |  |
| Dr.N. K. Grover | 22 |  |  |  |  |  |  |  |  |  |  |  |
| Dr. Rakesh Sharma | 23 |  |  |  |  |  |  |  |  |  |  |  |
| Dr. Tejeet Singh | 27 | 10 | 9 |  |  |  | 978-3-659- 35725-1  978-3-659-16474-3  978-3-659-20346-6  Lambert academy publisher, germany | 3 |  |  | 0.5 to 2.5 |  |
| Mrs. Vaishali Goyal | 08 | 04 |  |  |  |  |  |  |  |  |  |  |
| Mr. Gazal Preet Singh | 10 |  |  |  |  |  |  |  |  |  |  |  |
| Dr. Rajbir Singh Bhatti | 25 |  |  |  |  |  |  |  |  |  |  |  |
| Mr. Manjider Singh | 09 | 02 |  |  |  |  |  |  |  |  |  |  |
| Mr. Ravinder Pal Singh | 02 |  |  |  |  |  |  |  |  |  |  |  |
| Mr. J.K. Aggarwal | 02 |  |  |  |  |  |  |  |  |  |  |  |
| Mr. Jwala Parshad | 10 | 2 |  | 1  978-3-8465 -8118 -6  Lambert academy publisher, germany |  |  |  |  |  |  |  |  |
| Mr. Sukhjinder Singh | 02 |  |  |  |  |  |  |  |  |  |  |  |
| Mr. Veerpal Soi | 02 | 02 |  |  |  |  |  |  |  |  |  |  |
| Nitin Kapoor | --- |  |  |  |  |  | 978-3-659-35725-1  Lambert academy publisher, germany |  |  |  |  |  |

20. Areas of consultancy and income generated: NIL

21. Faculty as members in

**DR T S Sidhu**

1. National committees

(i) Member of ISTE Section anagement Committee (Pb, HP, Chd, J&K Section) 2003-2004

(ii) Life Member of ISTE (No. LM 17941)

1. InternationalCommittees

Member, The Research Board of Advisors, The American Biographical Institute, since 2003.

c) Editorial Boards

a) Surface and Coating Technology (Elsevier)

b) Journal of Materials Research

c) Journal of the American Ceramic Society

d) Wear (Elsevier)

e) Scripta Materialia

f) Corrosion Science,

g) Int. Journal of Physical Sciences.

h) Crystal Growth & Design

22. Student projects- DR Asati

1. Percentage of students who haved one in-house projects including inter departmental/programme

b) Percentage of students placed for projects in organizations outside the institution i.e. in Research laboratories/Industry/ otheragencies

23.Awards/Recognitions received by faculty and students

**DR T S Sidhu**

(i) NACE International India Section has awarded “Best Ph.D.Award”, along with a citation and cash award of Rs. 5000 for meritorious contributions in the field of corrosion sciences.

(ii) Got ‘Student Award’ to attend the “International Conference on Surfaces, Coatings and Nanostructured Materials” held at University of Aveiro, Portugal, on 6-9 September 2005.

(iii)Got appreciation letter from IIT Roorkee for submitting Ph.D. thesis in a record time of 02 years and 04 months, with record number of publications i.e. 18 research papers in international referred journals of repute and 07 research papers in international conferences out of Ph.D. thesis.

(iv) One of my papers titled “Hot Corrosion of Some Superalloys and role of High-Velocity Oxy-Fuel Spray Coating-A Review, has been rated at 6th position among the top 25 papers of the international journal “Surf. Coat. Technol.” (Elsevier).

(v) Got rare distinction of publication of ‘Bio-data’ in the American Journal “Journal of Thermal Spray Technology” Vol. 15(3), pp. 320-322, under the column ‘Meet Our New Colleague’. This column of the journal presents selected currently graduating Ph.D. students in the thermal spray field around the world.

**Mr Gazalpreet**

1 Best Teacher Award given by Lion Club Ashirwad, Ferozepur & AGREED Foundation Ferozepur in Sept2013

2. Awarded by District Administration Ferozepur on 15th August (Independence Day Celebrations) in recognition of services rendered under SVEEP project of election commission of India for Voters awareness campaign in college like, painting competition, Human chain, Debate, Workshop, signature campaign ,slogan writing competition.

3 Award given by Shaheed Bhagat singh , Sukhdev and Rajguru memorial society.

24. List of eminent academicians and scientists/visitors to the department

|  |  |
| --- | --- |
| **Name Of Person** | **Designation & Visited From** |
| Mr Ajay Kumar | Drish India Ltd , Jalandhar |
| Mr Lovneet Vohra | GS Auto Ltd , Ludhiana |
| Mr Vishal Mahajan | Gabrial India Ltd, Gurgaon |
| Dr Gurvinder Singh | Inetrnational Tractors Ltd , Hoshiarpur |
| Mr A K Singh | Hero Cycles Ltd Ludhiana |
| Dr Satya Parkash | Professor, IIT Roorkee |
| Mr Rasik Gupta | Boston Consultancy Services USA |
| Mr Yogesh Kalia | Medhaavi Enterprises Chandigarh |
| Mr R C Chopra | Retd Director, MSME |
| Dr S K Dhamija | Head, EDC, NITTTR Chandigarh |
| Dr Sunil Dutt | Professor, NITTTR, Chandigarh |
| Dr Anjan Sil | Professor, IIT Roorkee |

25. Seminars/ Conferences/Workshops organized & the source of funding

a) National

|  |  |  |  |
| --- | --- | --- | --- |
| S No | Topic/Title | Date/Year | Source of Funding |
| 1 | Role of Communication, Motivation and Team- Building in Enhancing the Performance of Teachers | 25 May ‘ 2013 | TEQIP-II |
| 2 | Workshop on Mechatronics by Medhavi Industries, Chandigarh | 19.3.2013 to 20.3.2013. | TEQIP-II |
| 3 | Workshop on Solidworks by CAD Center Bathinda. |  | TEQIP-II |
| 4 | National Conference on Advances In Manufacturing Systems | 5-6 Sept’2014 | TEQIP-AICTE-ISTE |

26. Student profile programme/coursewise:

**Session Jan-Jun 2014:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Name of the Course/ Programme( as per question no. 4) | Applications received | Selected | Enrolled | | Pass percentage |
| Male | Female |
| Engineering Physics | 114 | 106 | 114 | -- | 93 |
| Engineering Mathematics-II | 111 | 93 | 11 | -- | 84 |
| Communicative English | 114 | 102 | 114 | -- | 89 |
| Basic Electrical and  Electronics Engineering | 114 | 113 | 114 | -- | 99 |
| Human Values and  Professional Ethics | 114 | 113 | 114 | -- | 99 |
| Manufacturing Practice | 114 | 114 | 114 | -- | 100 |
| HRM | 145 | 141 | 145 | -- | 97 |

**Session June-Dec 2014:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Name of the Course/ Programme( as per question no. 4) | Applications received | Selected | Enrolled | | Pass percentage |
| Male | Female |
| Engineering Mathematics-I | 112 | 82 | 112 | -- | 73 |
| Engineering Chemistry | 108 | 53 | 108 | -- | 49 |
| Fundamentals of Computer  Programming and IT | 109 | 66 | 109 | -- | 61 |
| Environmental Science | 95 | 77 | 95 | -- | 81 |
| Mathematics -III | 132 | 85 | 132 | -- | 65 |

\*M=Male \*F=Female

27. Diversityof Students

|  |  |  |  |
| --- | --- | --- | --- |
| **Nameofthe**  **Course** | **%of students fromthe samestate** | **%ofstudents fromother States** | **%of students from abroad** |
| Batch 2011 | 68.9 | 31.1 | 0 |
| Batch 2012 | 81.4 | 18.6 | 0 |
| Batch 2013 | 68 | 32 | 0 |
| Batch 2014 | 46.3 | 53.7 | 0 |

28. How many students have cleared national and state competitive examinations such as NET,SLET,GATE,Civilservices,Defenseservices,etc.?

**Manual for Self-study Report**

**Affiliated/ Constituent Colleges**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Sr No | **Name of the Student** | **Univ**  **Roll No** | **Batch (Passing out Year)** | **Name of the Degree Obtained after B.Tech** | **Name of the College from where the Higher Studies have been carried out** | **Entrance** |
| 1 | Shyam Dogra | 9802074 | 1999 | MBA | MDI Gurgaon | CAT |
| 2 | Rahul Chhibber | 97040808 | 2001 | M.TECH, Ph.D | IIT Roorkee | GATE |
| 3 | Prashant Wadhwa | Do not remember | 2001 | PhD | Oregon State University | GRE |
| 4 | Anchal Sood | 97040872 | 2001 | PGDIM | NITIE, Mumbai | NITIE Entrance test |
| 6 | Sachin Sood | 9802024 | 2002 | MBA | University of Oxford | GMAT |
| 8 | Sunil Kumar | 9802030 | 2002 | M Tech | IIT Delhi | GATE |
| 11 | Rajesh Kumar | 9902058 | 2003 | M.Tech | IIT Delhi | GATE |
| 12 | Aishwarya Rastogi | 0 | 2003 | PG Diploma in Retailing and Merchandising Management | Birla Institute of Management Technology | CAT |
| 15 | Charanjit singh | 0 | 2004 | MIS | CQUniverity Australia |  |
| 18 | RAVINDER KAUR | 122124296 | 2005 | M.TECH | GNDEC | GRADUATION MARKS |
| 20 | gaurav garg | 222 143 | 2006 | MBA | k j somaiya | cat |
| 21 | Harshit Madania | 222031547 | 2006 | MBA | IIM Kozhikode |  |
| 22 | Abhishek Kumar Garg | 222031533 | 2006 | MBA (F & B) | NIIT University, Neemrana | BLP Test by ICICI Bank |
| 23 | Sandeep Bansal | 222116984 | 2006 | MBA | Punjabi University, Patiala | MAT & MET |
| 24 | Harneet kaur | 303030401 | 2007 | masters in business administration | master tara singh memorial college for women | entrance for mbacit |
| 25 | Prashant Sharma | 322116841 | 2007 | MBA | ICFAI Business School, Hyderabad | IBSAT |
| 26 | Mnik Mittal | 322116831 | 2007 | MBA | FORE School of Management | CAT |

29. Student progression

|  |  |
| --- | --- |
| **Studentprogression** | **Against%enrolled** |
| UGtoPG | Nil |
| PGtoM.Phil. | NA |
| PGtoPh.D. | NA |
| Ph.D.toPost-Doctoral | NA |
| **Employed**  •Campusselection  •Other than campus recruitment | 08 |
| Entrepreneurship/Self-employment |  |

30. Details of Infrastructural facilities a) Library

Carpet area of library (in m2 ) 494

Reading space (in m2) 208

Number of seats in reading space 120

Number of users (issue book) per day 090

Number of users (reading space) per day 120

Timing: during working day, weekend, and vacation 9:00am to 5:00pm

Number of library staff 06

Number of library staff with a degree in library 04

Management

Computerisation for search, indexing, issue return No

Record Bar coding used No

Library services on Internet/Intranet INDEST or other Yes

similar membership archives

b) Internet facilities for Staff & Students

Name of the Internet provider: BSNL, ferozepur

Available bandwidth: 34Mbps(1:1)

Access speed :

Availability of internet in an exclusive lab: YES

Availability in most computing labs : YES

Availability in department and other units : YES

Availability in facility rooms: YES

Institute’s own e-mail facility to facility / students. YES

Security/privacy to e-mail/internet users : YES

c) Class rooms with ICT facility: 01 No.

|  |  |  |
| --- | --- | --- |
| Name of class room | Exclusive/shared | Room No. |
| Computational Lab | Exclusive | B128 |

d) Laboratories

|  |  |  |
| --- | --- | --- |
| **Name of Lab.** | **Area** | **Major Equipments** |
| **Foundry shop** |  | Introduction to Foundry Tools and equipments |
| **Black smithy shop** |  | Introduction to Black smithy tools and furnace |
| **Carpentry shop** |  | Introduction to Carpentry tools |
| **Fitting shop** |  | Introduction to Fitting tools |
| **Machine shop** |  | Introduction to Machine tools like Lathe, Milling, Single point cutting toolsetc |
| **Electrical & PCB Shop** |  | Electrical Circuits, Wiring, PCB Making |
| **Welding shop** |  | Electric Arc Welding Tools and equipment, Gas welding etc |
| **Sheet Metal Shop** |  | Introduction Sheet Metal Tools and machines |
| **Thermal Engg. Lab** | 141.92 *m2* | * Computerized Two Cylinder four stroke diesel engine test rig. * Two stage Reciprocating air compressor test rig. * Various Components of Engine * Models of Various Types of Boilers * Cut section Model of Two & Four stroke diesel engine. * Cylinder, 4 Stroke Petrol Engine Test Rig. * Cut section model of two stroke & four stroke petrol engine. * Three cylinder four stroke petrol engine test rig with hydraulic dynamometer |
| **Automobile Engg. Lab.** | 141.92 *m2* | * Old Ambassador car. * Various Parts of an automobile like gear boxes, clutch, Steering system, Braking system, cooling system etc. * Valve refacing M/c. |
| **CAD Lab** | 141.92 *m2* | **Hardware**   * Thirty four Computer System with UPS * One Laser printer * Two Dot- Matrix Printer * Plotter, 5 server,6 scanner   **Software**   * Inventor 10.0 & Auto CAD 2006   An sys software (32 Seats) |
| **Refrigeration & Air Conditioning Lab.** | 141.92 *m2* | * Ice Plant Tutor * Vapor Compression Test Rig * Window Type Air conditioning Test Rig**.** * Gas Charging Unit. * Cut Section Models of Various components of Ref. & Air Lab. |
| **Industrial. Automation & RoboticsLab.** | 141.92 *m2* | * Pneumatic Trainer * Hydraulic Trainer * Pneumatic Stamping M/c |
| **T.O.M. Lab.** | 141.92 *m2* | * Journal Bearing apparatus * Different types of Governors apparatus * Gyroscope apparatus. * Balancing of masses apparatus. * Different type of models of various links & Mechanisms.(45 No.) |
| **S.O.M. Lab.** | 141.92 *m2* | * Universal Testing Machine * Torsion Testing Machine * Impact Testing Machine * Spring Testing Machine * Hardness Testing Machine |
| **Engineering Material & Metallurgy** | 141.92 *m2* | * Metallurgical Microscope * Specimen cutting Machine * Bench Grinder * Polishing Machine * Belt Grinder |
| **Manufacturing Process Lab-I** | 141.92 *m2* | * Sieve Shaker * Sand weighing Scale * Drying Oven * Mould Hardness Teser * Calibration unit Fas * Sand Rammer * Moisture Tester * Sand Surface Tester * Spot welding M/c Project * Tig welding machine * SAW welding machine * Mig welding machine |
| **Manufacturing Process Lab-II** | 141.92 *m2* | * Electro Discharge M/c * Solid works 3D Software * CNC Mill Trainer(Techno fort) |
| **N.D.T. Lab.** | 33.60 *m2* | * Ultasonic Crack Detector * Ultrasonic Coating Thickness Gauge * Ultrasonic Thickness Gauge * Magnetic Crack Detector |
| **M/c Drawing, &Engg. Graphics Drg.** | 33.60 *m2* | * 3-D models available. |
| **Fluid Mechanics Lab.** | 141.92 *m2* | * Bernoulli’s theorem apparatus * Flow measurement of venture meter and orifice meter. * Pipe friction apparatus. * Orifice and mouthpiece apparatus. * Flow over a notch apparatus. * Losses in pipe fitting apparatus. * Laminar & Turbulent flow apparatus. * Pitot tube apparatus. * Metacentric height apparatus. |
| **Metrology & Mech. Measurement Lab.** | 141.92 *m2* | * Tool Makers Microscope * Vernier Height Gauge * Different types of micrometers. * Sine bar. * Slip gauges box set. * Granite surface plate. * Bench centre apparatus. * Box angle plate. * Magnetic V- Block. * Various types of dial indicators. * Vernier calipers * Angle plate. * Potentiometers * LVDT Tutors. * Transducer. * Strain gauges. * Load cells. |
| **Mechanical Vibration Laboratory** | 141.92 *m2* | * Universal Vibration Laboratory |

31. Number of students receiving financial assistance from college, university,

Government to rother agencies

67 students with post metric scholarship, 2014 batch

27 Students with fee waiver scheme, 2014 batch

01 student with AICTE special scholarship scheme, 2014 batch

01 student with Exigency fund- 2014 batch

32. Details on student enrichment programmes (speciallectures/workshops/

seminar) with external experts

|  |  |  |
| --- | --- | --- |
| **Technical Society/ Chapters** | **2012 – 2013**  **CAY** | **2013 – 2014**  **CAY** |
| Industry Institute Interaction Cell | 1) Industrial Visit at MAHLE FILTERS PARVANOO on 20.3.2013.  2) Expert Lecture by BOSTON CONSULTANCY SERVICES on 21.3.2013.  3) Industrial Visit at TVS, NALAGARH on 23.3.2013.  4)Industrial Visit at GABRIEL, PARVANOO on 5.4.2013. | 1) Expert Lecture by Dr. Gurvinder Singh, Sonalika International Tractors Ltd. Hoshiarpur Tractors Ltd. Hoshiarpur on 14.8.2013.  2) Industrial Visit at Sonalika International Tractors Ltd. HoshiarpurTractors Ltd. Hoshiarpur on 17.8.2013.  3) Expert Lecture from Medhavi Industries, Chandigarh on 20.8.2013.  4) Industrial Visit at Hero Cycles Limited Ludhiana and Central Tool room Ludhiana on 27.8.2013.  5) Industrial Visit at Central Tool room Ludhiana on dated 10.10.2013.  6) Expert Lecture by Sh. Vikas Kakkar, from Danone Industries, Lalru, Ambala on dated 14.10.2013.  7) Expert Lecture from Nex Autoparts (P) ltd. Ludhiana on 28.10.2013.  8) Industrial visit at Palampur Tea Factory on 20.1.2014.  9)Industrial visit to science city Kapurthala on 1.3.2014.  10) Workshop on Mechatronics by Medhavi Industries, Chandigarh from 19.3.2013 to 20.3.2013.  11)Workshop on Solidworls by CAD Center Bathinda. |

33. Teaching methods adopted to improve student learning

1 Use of smart class rooms.

2 Interaction of students with industry personal.

3 Quiz

4 Seminar

5 Black-Board Teaching

6 Industrial visits

7 Special Classes for communication skills.

8 Group Discussion

34. Participation in Institutional Social Responsibility(ISR) and Extension activities

**Mr Gazalpreet Singh**

1 Organised many events under SVEEP project of election commission of India for Voters awareness campaign in college like, painting competition, Human chain, Debate, Workshop, signature campaign ,slogan writing competition.

2 Organised two blood donation camps in association with LION’s Club Ferozepur.

3 Organised many tree-plantation camps

4 Organised Environment Day

5 Given many lectures against Drug –Addiction in different colleges as per directions of district administration.

6 Organised motor-cycle rally to celebrate martyrdom day of Shaheed Bhagat singh.

7 Nodal officer , SBSSTC for making Ferozepur district smoke free.

**Dr Tejeet Singh**

1 Member anti-ragging squad.

35. SWOC analysis of the department and Future plans

**Strength**

1 Well Qualified and experienced Faculty and Technical Staff.

2 Publications of Faculty in refereed international journals.

3 Active Involvemnt of faculty in research. Most of the faculty members are guiding Ph.D & M Tech students.

4 Department is actively involve din fetching the grants in the form projects from many organizations like AICTE

5 Well equipped laboratories and class rooms.

6 Fully Furnished Seminar Hall and Conference Room.

7 Every faculty member is having Laptop/ Tab and other facilities required for teaching and research.

Weakness

1 Placements of the students is the area of concern.

2 Transition rate needs improvement.

3 Lack of communication skills of students

Future Plans

More expert lectures

More use of presentations in teaching

More Industrial Visits will be organized

E-Class Room will be developed

Another CAD Lab will be developed

**Presentation of BestPractice**

**1. Title of the Practice:**

“Promotion of Research among Faculty & Innovative Student Projects”

**2. Objectives of the Practice**

**What are the objectives/ intended outcomes of this ‘‘best practice’’ and what are the underlying principles or concepts of this practice (in about 100 words)?**

The main focus of the higher education in India is to promote research. In accordance with the growing need for the upgradation of the faculty and the students in higher education, enormous efforts are taken by the management of the college to inculcate research culture in the staff and the students to arouse curiosity, develop objectivity and improve critical thinking. It ensures continuous professional growth on the part of teachers and of problem identifying, systematic planning, careful implementing and solution finding abilities on the part of students.

* To keep pace with the latest advancements in respective discipline and thus to update the intellectual calibre of the faculty
* To encourage the faculty to pursue Ph.D. and to acquire more PhD guides/supervisors to have more research scholars.
* To motivate the faculty to apply for the major and minor research projects
* To promote the departments to have more research labs
* To collaborate with other institutions, universities and industries in India and abroad
* To arrange for interface among the institutions, industries and the public to take up research projects of relevance.
* To encourage the faculty and the students to organize and present research papers in the national / international seminars / conferences / workshops
* To publish quality research articles in reputed journals, edit study materials for the prescribed syllabus and author books of high originality
* To provide seed money for research activities

**3. The Context**

**What are the contextual features or challenging issues that needed to be addressed in designing and implementing this practice (in about 150 words)?**

In order to keep pace with the latest development the periodic and constant updating of the subject material is very essential. The teaching faculty and staff of the institute are highly conscious of quality enhancement and quality sustenance at par with the progress of technology. The knowledge generation and effective dissemination are the two major focus of our quality research. The congeal research ambience has been created through strengthening infrastructure facilities, motivating faculty and staff members and guiding them to acquire grants from the funding agencies to launch new research projects and assignments - pursuing Ph.D., taking up minor or major research projects, guiding research scholars and publishing research papers and books.

Challenging issues to be addressed while designing and implementing the practice

Following are some of the basic challenges that needed to be addressed while implementing the practice. Requiring sound knowledge of technology development

* Creation of awareness on the need for research to update the knowledge of the students and the staff at international standards
* Passive attitude of the faculty and staff towards the research.
* Creating an interest in research in students through individual or group research projects as part of their syllabus
* Analyzing and addressing the needs of the society through JACEP and submitting reports based on their field research
* Forming linkage with the industries and research centres and collaborating with them for the research projects of staff and students.
* The great demand of the rural based students for the attention of the staff to cope with their studies

**4. The Practice**

**Describe the practice and its uniqueness in the context of Indian higher education. What were the constraints/ limitations, if any, faced (in about 400 words)?**

The institution provides opportunities to the faculty and staff for improvement in qualification and skill level. A number of channels like study leave and QIP are in place for doing higher studies M.Tech or Ph.D. on regular basis. The institute rules also allows Part Time registration for a research degree. The institute also motivates is faculty for Post Doc Studies in India or abroad. Special emphasis is given on the sponsored projects (major and minor) of various funding agencies.

A Research Monitoring Committee is place under the Chairmanship of the Dear (PG Studies & Research) for promoting research culture among the staff and students in the campus. It sets the target for achievement in the action plan presented and submitted in the Board of Governors meeting every year. The attainment of the target is reviewed every year.

Support facilities for research

* Special consideration in the form of leave is given to the staff who are on the verge of completing their research work.
* The visits to various Universities and libraries for data collection have enriched their research.
* The management extends co-operation to the staff to go abroad for paper presentation and send proposals to UGC to avail travel grant.
* Steps have been taken to have a linkage with Liverpool Hope University, U.K. to promote teaching, learning and research.
* The management has decided to give financial assistance to the self-finance faculty who make research publications in the journals with high impact factor.
* Rewards of teachers are based on their achievements in research.

Constraints faced in the pursuit of research

* Owing to time constraint and interface, the gap between academia and industries is not adequately bridged to fulfill the needs of industries.
* The students can be further motivated to explore new areas of research and procure funds from various funding agencies.
* Students can be provided hands-on activity based research in the industries to address challenges faced in the job market.
* Extension Programme can focus on neighbourhood oriented research to solve real life problems.
* Interdisciplinary and socio- economic developmental research can be encouraged among the students and the teachers.
* Ph.D. holders can be motivated to publicize their research in the form of books.

**5. Evidence of Success**

**Provide evidence of success such as performance against targets and benchmarks, review results. What do these results indicate? Describe in about 200 words.**

The achievements in the field of research are the main indicators of excellence in research practiced at the institute.

* In last three years 11. faculty members have successfully completed PhD degrees from IITs or some renowned universities and ….. completed their M.Tech in respective areas.
* A good number of faculty have availed the opportunities for presenting papers in National ( ) and International ( ) Conferences.
* Nine faculty members have been sent abroad for attending the International events.
* Director and Chairman Board of Governors visited top raking Universities of USA to see the best practices being followed there.
* Expert from PUM of Netherlands visited the campus to give a thrust to academic activities specially research and industrial collaboration.
* A team of two senior faculty members was sent to Netherlands in connection with the ongoing international interaction and exchange programme inked wit PUM of Netherlands.
* Nine sponsored research projects with a funding of nearly ….. croresare undertaken during the assessment period. The institute was also granted the TEQIP project of MHRD/World Bank for Rs. 10.00 crores.
* 27 faculty members are University-approved supervisors for guiding M.Tech. and Ph.D. scholars.
* Final year UG and PG students undertake mandatory and funded, individual and group projects.
* New Project and Research labs have been established in departments to give a thrust to research activities
* E-journals, DELNET and Internet laboratory are added in the library.
* In addition to the central Computer Centre facility, CAD/CAM and Computational laboratories have been established in 05 departments.
* Separate Computer labs have been established in all the hostels.
* Publication of research papers in reputed journals with high impact factor evinces the keen interest of the faculty in research. The number of publication is continuously increasing from ……. In 2011-12 to ……. In 2013-14.
* A number of teachers have published articles and chapters in research books.
* Competitive grants have been sanctioned to a number of faculty members of the institute by DST or AICTE for research as well as laboratory modernization projects.
* The proceedings of the three conferences organized in the institute are published in the form of books.
* Research is nurtured at the college by strengthening infrastructure facilities in the laboratories and the library.

**6. Problems Encountered and Resources Required**

**Please identify the problems encountered and resources required to implement the practice (in about 150 words).**

* More incentives can be given to the teachers by the Government for research activities - publications of books and papers in reputed journals.
* More State of Art Research Intensive Workshops should be organized for faculty to attract them to the Quality Research and participation in Sponsored Research Projects/activities.
* Various technical sessions and seminars can be organized for the young teachers and UG/PG students to create awareness of the requirements for research - preparation of proposals, various funding agencies etc.
* General grants can be provided by UGC under special schemes to strengthen research resources at the college in the form of books and equipments.
* International collaboration and co-operation can be sought to make research more qualitative.
* A research journal can be published by maintaining the standard of the articles and making the peer review process strict.
* Academic audit can formulate quality parameters to ascertain the quality of research of the staff and the students in each department.
* Vacancies can be filled up by the Government to acquire powerful human resource with research acumen to develop research activities.

***7. Any additional information regarding Innovations and Best Practices, which the College would like to include.***

* The institute is situated at a distance of only 11 KM from the Indo Pak Boarder and caters to the backward boarder belt of the state of Punjab
* The institute is one of the leading destination for technical and professional education in North West part of the country.
* It has a 100 Acre green lush campus on NH-95, 3 km away from Firozpur Cantt with idea ambience for learning.
* The institute is devoted for the Holistic development for all the students, faculty and staff members.

**8. ContactDetails**

**Name of thePrincipal:** Dr. T. S.Sidhu

**Name of the Institution:** Shaheed Bhagat Sing State technical Campus Ferozepur

**City**:Ferozepur **PinCode**: 152004

**Accredited Status:**Applied for

**WorkPhone :** 01632-242138 **Fax**: 01632-242138

**Website:** sbsstc.ac.in **E-mail:** tdsidhu@rediffmail.com

**Mobile :** 8288012001

**5.Post-accreditation Initiatives**

**If the college has already undergone the accreditation process by NAAC, please highlight the significant quality sustenance and enhancement measures undertaken during the last four years. Then arrative may not exceed ten pages. (Refer sectionIX of Guidelines for Assessment and Accreditation)**

Not Applicable

6. Declaration by the Head of the Institution

I certify that the data included in this Self-studyReport(SSR) are true to the best of my knowledge.

This SSR is prepared bythe institution after internal discussions, and no part there of has been out sourced.

I am aware that the Peer team will validate the information provided in this SSR

During the peer team visit.

Signatureof the Head of the institution with seal:

Place:

Date:

**Annexure I(A)**

**Guiding students research**

**Department of Chemical Engg.**

**Guiding Student research**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Designation | Specialization | No.ofM. Tech.  Students  guidedforthe  last4years | No.ofPh.D.  Students  guidedforthe  last4years |
| Dr. Rajeev Garg | Professor | Modeling and Simulation | 07 students completed  02 Students ongoing | 03 Students  registered |
| Mrs. Balpreet Kaur | Associate Professor | Environmental Science | 02 students completed  02 Students ongoing | - |
| Mr. Pankaj Kalra | Associate Professor | Modeling and Simulation | 01 students completed  02 Students ongoing | - |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| S. No. | Thesis Title | Name of Student | Joint/ Independent | Name of Co-supervisors | Status |
| 1. | Phase equilibrium Prediction for 2-Component Non-Associating Mixture using Equations of State | Rajiv Arora | Jointly | Dr. N. K. Grover/Dr. Rajeev Garg | Awarded in 2008 |
| 2 | Treatment of Pulp & Paper Mill Wastewater by Chitosan in Polymer Induced Flocculation | Balpreet Kaur | Jointly | Prof. A. P. Singh/Dr. Rajeev Garg | Awarded in 2010 |
| 3 | Evaluation of Fatality Risk Dosage for Radon based radiations in Urban Areas of Bathinda District of Punjab | Amit Arora | Jointly | Prof. A. K. Tyagi,  Dr. Rohit Mehra/Dr. Rajeev Garg | Awarded in 2011 |
| 4 | Treatment of Wastewater by Adsorption on Tea Leaves | Raj Kumar | Jointly | Dr. Lalit Sharma/Dr. Rajeev Garg | Awarded in 2013 |
| 5 | Experimental and Simulation Study of Absorption of CO2 using Packed Bed Column | Awadhesh Kumar Pundir | Jointly | Mr. Pankaj Kalra/Dr. Rajeev Garg | Awarded in 2013 |
| 6 | Analysis of Graetz Problem in Heat Exchangers | Rakhi Vaish | Jointly | Dr. N. K. Grover/Dr. Rajeev Garg | Awarded in 2014 |
| 7 | Electrolysis Treatment of RO Retentate | Vinod Meena | Jointly | Dr. H. R. Ghatak/Dr. Rajeev Garg | Thesis submission in progress |
| 8 | Adsorption removal of zinc from waste water by natural biosorbents | Sunil Rajoria | Independent | Balpreet Kaur | Awarded in 2013 |
| 9 | A comparative study of mango seeds with wood stalks as a small scale downdraft gasifier feedstock | Rakesh Punia | Jointly | Balpreet Kaur/ Dr Sangeeta Sharma | Awarded in 2013 |

**Department of Electronics & comm. Engg.**

Thesis Guided in the Department till date

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Serial No. | Name | Roll No. | Date of Viva | Topic | Guide |
| 1 | Manpreet Kaur | 96436882801 | 26-02-2013 | Performance evaluation & analysis of VANET by implementing encryption techniques | Mrs. Rajni |
| 2 | Meenaxi | 96436882803 | 31-08-2013 | Investigation of energy aware routine in wireless sensor networks | Dr. Satvir Singh |
| 3 | Puneet Bindra | 100666880655 | 23-12-2013 | Expanding ring search based performance evaluation of AODV Algorithm in Mobile ADHOC Networks | Mrs. Jaswinder Kaur |
| 4 | Sunil Kumar Gautam | 100666880660 | 22-05-2013 | Performance Analysis of Hybrid Raman Amplifier | Dr. Vishal Sharma |
| 5 | Ramandeep Kaur | 100666880658 | 27-11-2012 | Implementation and Investigation of high speed DWDM Transmission system in the presence of four wave mixing | Dr. Vishal Sharma |
| 6 | Sushank | 100666880661 | 26-02-2013 | Implementation of OFDM Based High Speed Hybrid Optical Transmission System | Dr. Vishal Sharma |
| 7 | Sandeep Kumar | 100666880662 | 23-02-2013 | Effect of Particle Non-Sphericity and Hydrated Water Contents on Microwave Signal Attenuation: A Computational Study | Mrs. Jaswinder Kaur |
| 8 | Lovish Jaiswal | 100666880652 | 23-02-2012 | Performance Analysis of Zigbee Wireless Sensor Networks under Different Network Topologies and Effect of back-off Exponent in Zigbee Sensor Devices | Mrs. Jaswinder Kaur |
| 9 | Navneet Kaur | 100666880653 | 13-08-2013 | Investigation of OFDM Based Wiremax Network | Dr. Vishal Sharma |
| 10 | Rajni | 100666880656 | 27-11-2012 | Implementation of High Speed Dispersion compensated DWDM Link | Dr. Vishal Sharma |
| 11 | Gaurav Sikri | 964636882797 | 1-12-2012 | Reduction of Paper Using Wavelet Tree Structure in WOFDM System | Mrs. Rajni |
| 12 | Gurpreet Singh | 100666882643 | 15-02-2014 | Design of Triple Microstrip Antenne with defected Ground Structure for wireless Applictions | Mrs. Rajni |
| 13 | Kulwinder Kaur | 100666880651 | 27-09-2013 | Investigation of Localization of Base Tran receivers Stations Using Artificial Colony Algorithm | Dr. Satvir Singh |
| 14 | Gagan Sachdeva | 100666880647 | 27-11-2012 | Investigation for improved convergence during Yagi-Uda Antenna Design Optimization using BBO | Dr. Satvir Singh |
| 15 | Jagvir Kaur | 100666880650 | 26-02-2012 | Xpm Induced Cross Talk in SCM-WDM Transmission Link in the presence of Higher Order Dispersion | Dr. Vishal Sharma |
| 16 | Shimpa Sethi | 100666882660 | 3-01-2014 | Implementation & analysis of a fused approach for segmentation of Brain MR images for Tumor Extraction | Mrs. Jaswinder Kaur |
| 17 | Sumer Singh | 100666880659 | 10-04-2013 | MAODV to identify a secure route selection in MANET Under Black-hole | Mr. Chakshu Goel & Mr. Gurjeevan Singh |
| 18 | Gurwinder Singh | 100666880649 | 27-09-2013 | A modified DSR Protocol to find a secure route in MANET | Mr. Chakshu Goel & Mr. Gurjeevan Singh |
| 19 | Puneet Jain | 100666880654 | 27-09-2013 | Design analysis & simulation of C-MOS Full Adder for Arithmetic Application at 180 nm Using Tanner Tool | Mr. Chakshu Goel & Mr. Gurjeevan Singh |
| 20 | Mandeep Kaur | 100666882650 | 27-08-2013 | Bandwidth enhancement of Microstrip Patch antenna with SRR type slot | Mrs. Rajni |
| 21 | Navdeep Kaur | 100666882653 | 27-08-2013 | Design and Simulation of Microstrip Patch Antenna for On Body Communication using Different Feeding Techniques | Mrs. Rajni |
| 22 | Manbir Kaur | 1169048 | 19-07-2013 | Performance Evaluation of Quasi and Rotaed Quasi OSTBC Systems | Mr. Amit Grover |
| 23 | Pargat Singh | 1169053 | 11-07-2013 | Design of an optimal Detector in BLAST Architecture | Mr. Amit Grover |
| 24 | Keshav Kumar | 1169047 | 15-02-2014 | New design using CLRCL full adder logic in 180nm technology | Mr. Amit Grover |
| 25 | Garish Kumar Wadhwa | 1169039 | 11-07-2013 | An area efficient carry select adder design by using 180 mm technology | Mr. Amit Grover |
| 26 | Rohit Gupta | 1169057 | 29-03-2014 | Study and Comparison of Equalization Techniques in MIMO Systems | Mr. Amit Grover |
| 27 | Shelja Tayal | 1169062 | 31-08-2013 | Investigation of variants of biogeography based optimization algorithm for improved performance | Dr. Satvir Singh |
| 28 | Shivangna | 1169063 | 27-09-2013 | Range based node localization in wireless sensor network using BBO and PSO | Dr. Satvir Singh |
| 29 | Amrita Tyagi | 1169033 | 13-08-2013 | Modelling & Simulation of long reach Ethernet Passive Opticcal network (E\_PON) | Dr. Vishal Sharma |
| 30 | Gurimandeep Kaur | 1169040 | 12-07-2013 | Improved Free Space Optics (FSO) Under Different Weather Condition | Dr. Vishal Sharma |
| 31 | Amandeep Kaur | 1169030 | 17-07-2013 | Perfomance Estimation of intersattellite optical wireless communication (ISOWC) system | Dr. Vishal Sharma |
| 32 | Etika Mittal | 1169038 | 31-08-2013 | Multiobjective gain inpedence optimization of wire yagi-uda antenna | Dr. Satvir Singh |
| 33 | Shashi Kant | 1169060 |  | Performance evaluation of energy efficient VANET Network | Dr. Vishal Sharma |
| 34 | Jaspreet Singh | 1169044 |  | Performance evaluation of OFDM System over Multipath Fading | Dr. Vishal Sharma |
| 35 | Sumit Khurana | 1169066 | 9-4-14 | Simulation and Analysis the Performance of AODV and DSR for VOIP and VIDEO Confrencing using OPNET | Mr.Amit Grover |
| 36 | Chetinderpal Singh | 1169036 | 11-4-14 | Implementation of a modified moder-sram using Tanner EDA | Mr.Amit Grover |
| 37 | Kamalpreet Kaur | 100666882647 | 9-5-14 | Detection of low rate distributed denial of service attack and comparison of various queue management algorithms | Ms. Navdeep Kaur and Mr. Gurjeevan Singh |
| 38 | Mini Lumba | 1269843 | 1-8-14 | Cloud burst sway over optimum OFDM-FSO Transmission link | Dr. Vishal Sharma |
| 39 | Inderbir Kaur | 1269840 | 1-8-14 | ECG signal analysis and arrhythmia detection using wavelet transformer | Mrs.Rajni |
| 39 | Anutam | 1269833 | 1-8-14 | Image denoising using wavelet packet transformer and optical wavelet basis | Mrs.Rajni |
| 40 | Shivani Sharma | 1269847 | 1-8-14 | Simulative realization of DWDM-OFDM-EPON System | Dr. Vishal Sharma |
| 41 | Aruna Rani | 1269834 | 2-8-14 | Performance evaluation of DWDM system using semiconductor optical amplifier | Mr. Sanjeev Dewra |
| 42 | Ekta Khurana | 1269836 | 9-8-14 | Radio propagation prediction and mimo channel modeling for IEEE 802.11N in indoor environment | Mrs.Jaswinder Kaur |
| 43 | Ashish Arora | 1169034 | 9-8-14 | Zig Bee simulation and investigation of star ,mesh and tree topology by varying channel sensing duration | Mr. Amit Grover |
| 44 | Jyoti Gupta | 1269841 | 9-8-14 | An area efficient approach comparative analysis of multiplier circuits | Mr. Amit Grover |
| 45 | Ranjit Singh Momi | 100666882658 | 16-8-14 | Design and simulation of triple band meandered monopole antenna incorporating defected ground structure with finite element method | Mrs.Rajni |
| 46 | Barinder paul Singh | 1169035 | 16-8-14 | Energy enhancement of wireless sensor networks using ant colony based scheduling algorithm | Mrs.Rajni |
| 47 | Gurpreet Singh | 1269839 | 25-8-14 | Mathematical modeling of wavelet OFDM based wireless network | Dr. Vishal Sharma |
| 48 | Gagandep Singh Gill | 1269837 | 6-9-14 | Design of low power and efficient carry and select order | Mr. Chakshu Goel |
| 49 | Lovepreet Singh | 1269842 | 15-9-14 | Black hole attack dominance on Manet protocol over different application | Ms. Navdeep Kaur and Mr. Gurjeevan Singh |

**DEPARTMENT OF MECHANICAL ENGINEERING**

**Guiding student’s research:**

|  |  |  |  |
| --- | --- | --- | --- |
| S.N. No. | Name of Student | Year | Title of the Dissertation |
| DR TEJEET SINGH –M TECH | | | |
| 1. | Mr. Nek Singh | 2006 | Achieving Business Excellence through Total Productive Maintenance |
| 2. | Rajinder Kumar | 2010 | Application of Quality Function Deployment in Health Care Sector for Enhancing Consumer Satisfaction-A Case Study |
| 3. | Nitin Kapoor, PEC University | 2012 | Analysis of Steady State Creep in Functionally Graded Rotating Cylinders. |
| 4. | Paramjit Singh Bhullar, PTU Jallandhar | 2012 | Creep Deformations In Functionally Graded Cylinders Subjected To High Thermo-Mechanical Loads. |
| 5. | Virat Khanna, PTU Jallandhar | 2013 | Steady State Creep in Rotating Thick-Walled Composite Cylinders. |
| 6. | Haramnajit Singh, PTU Jallandhar | 2013 | Creep Analysis of Functionally Graded Polynomial Cylinder Subjected To Internal Pressure. |
| 7. | Parampreet Singh, PTU Jallandhar | 2013 | CFD Analysis of Multi-Jet Air Impingment on a flat Plate |
| 8. | Pavitor Singh Rai, PTU Jallandhar | 2014 | Effect of Non-Linear Distribution of Reinforcement and Thermal Gradient on Creep Behavior of FG Cylinder |
| 9. | Aman Bhatia, PTU Jallandhar | 2014 | Natural Fiber PMC |
| 10. | Ishavneet Singh | 2014 | Steady state creep behavior of composite cylinder subjected to internal and external pressures |
| Dr Rakesh Kumar – PhD | | | |
| 1 | GazalPreet |  | Design of Reconfigurable Manufacturing System |
| 2 | ShakunPreet |  | Flexibility of Manufacturing Systems |
| 3 | Kamal Khanna |  | Design of Manufacturing Systems using RMTs |
| 4 | LeenaKakkar |  | Operational management of NAAC accredited institutions |
| 5 | Gitesh |  | Improvements in Cellular Manufacturing Systems |
| 6 | Sunil Kumar Bishnoi |  | Wire EDM |
| 7 | Ajay Kumar Aggarwal |  | Scheduling in Flexible manufacturing Systems |
| 8 | Shivam Arora |  | Operations management |
| 9 | Gurmeet S. Ananad |  | Electrochemical Honing |
| 10 | Umed Kumar Khod |  | Electrochemical Machining |
| Dr N K Grover – MTECH | | | |
| 1 | Rajiv arora  M-4220201 | 2008 | Phase Equilibrium Prediction for two Component Non-associating mixtures using equation of State |
| 2 | Paramjit Singh Bhullar  (96437682850) | 2012 | Creep Deformations in Functionally Graded Cylinders Subjected to High Thermo-mechanical Loads |
| 3 | Amandeep Singh  (96437682844) | 2013 | Effect of Cryogenic treated Electrode on EDM Output Parameters |
| 4 | Parampreet Singh  (100667682932) | 2013 | CFD Analysis of Multi-Jet Air Impingement on a Flat Plate |
| 5 | Baljit Singh  (96437682845) | 2012 | The Wear Behaviour of Detonation Sprayed Coatings on Grey Cast Iron |
| 6 | Virat Khanna  (96437682854) | 2013 | Steady State Creep in Rotating Thick Walled Composite Cylinders |
| 7 | Rakhi Vaish  (100666382007) | 2013 | Analysis of Graetz Problem in Heat Exchangers |

**Department of Computer Science & Engg.**

**Guiding Students Research:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Sr No.** | **Name** | **No. of Students** | **Students Name** | **Specialization** |
| 1. | Dr. Krishan Kumar | 2 | Kanu&  Rajveer Kaur | N/W Security  Wireless Networks |
| 2. | Dr. Monika Sachdeva | 2 | Priya&Reenkamal | N/W Security |
| 3. | Mrs.Daljeet Kaur | 1 | IshaChawla | N/W Security |
| 4. | Mrs. Sonika Jindal | 3 | Navneet Kaur ,Sahilcharaya&Rajbir Kaur | Digital Image Processing |
| 5. | Mr. Vishal Arora | 2 | ShubhiBansal&Divya | N/W Security  Wireless Networks |
| 6 | Mr. PawanLuthra | 2 | Sonia Arora&Sandeep Kaur | Cloud Computing |
| 7. | Mr.Sarabjit Singh | 1 | GauravDhawan | Parallel Computing |
| 8. | Mr.Japinder Singh Taneja | 2 | Karamjeet Kaur &Sukhveer Kaur | Software defined Networking |
| 9. | Mr.NavtejGhumman | 2 | Amanpreetchawla&Ramandeep Kaur | Cloud Computing |

**Department of Applied Sc. & Humanities**

**Guiding Students Research:**

**Dr. Sangeeta Sharma**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 1 | Savinder Kaur | Study of material for fabrication of inter mediate temp . solid oxide fuel cell electrolyte using microwave energy | Ph.D | 2011 | Co supervisor |
| 2 | Amit Dhir | Root zone bio tech plant: present prospective.  Studies on decolourisation of dye effluents using advanced oxidation systems | M.Tech (minor project)  M.Tech Thesis | 2006 | Supervisor |
| 3 | Sunita Rani | Assessment of drinking water quality at Moga . (punjab) . a mathematical approach | M .Phil | 2008 | Supervisor |
| 4 | Anchal Sood | Environmental consideration for planning of industrial area in Ludhiana city. | M. Tech. | 2009 | Supervisor |
| *5* | Navneet Kaur | Removal of synthetic dyes from aqueous streams. Employing adsorption and advanced oxidation systems | M..Tech. | 2010 | Supervisor |
| 6 | Bhajan Dass | Environmental Assessment and Remediation strategies for the treatment of effluents of recycled paper mills | M.Tech. | 2010 | Supervisor |
| *7* | Sarabjit Singh | Analysis and treatment of effluents released from agro based paper mills. | M.Tech | 2012 | Supervisor |
| *8* | Rakesh Punia | A comparative study of Mango seed with wood stalks as a small scale downddraft Gasifier feed stock | M.Tech. | 2013 | Co-supervisor |
| *9* | Davinder Kumar | Assessment of heavy metal contents in vegetables grown in the vicinity of Sirsa and their effects on human health. | M.Tech. | 2014 | Supervisor |

**Annexure I (B)**

**Details of student’s research projects.**

**Department of chemical Engg.**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **S. No.** | **Name** | **Title** | **Event** | **Venue** | **Remarks** |
| 1 | Ashish Koundle, Amit Arora, Jatinder Singh Gill | Supported Liquid Membrane for the separation of the Cu2+ ions | RACEE 2012, 20-21 January 2012 | NIT Rourkela | -- |
| 2 | Ashish Koundle, Amit Arora, Bhawna Wasson, Rakesh Sehgal | Fabrication Technologies of biodegradable nanoparticles | MOLMED 2012, 19-22 February, 2012 | Vellore, Tamil Nadu | -- |
| 3 | Rakesh Tangri, Amit Arora, Sandeep Kaur | Conversion of biomass into biocoal | National Conference on Material Science Application in energy and environment, 2-3 March,2012 | DAV college Jalandhar | -- |
| 4 | Harpreet Kaur, Balpreet Kaur et al. | Reduction in COD of pulp and paper effluent mill on treatment with bio-degradable polymer” in held at | National conference on Recent Advances in Chemical and Environmental Studies(RACES-2012) 3 March,2012 | Multani Mal Modi college, Patiala | Won second prize |

**Department of Mechanical Engg.**

**DETAILS OF STUDENTS RESEARCH PROJECTS:**

JULY-DEC 2012

|  |  |
| --- | --- |
| Title of Project | Project Guide |
| Vehicle suspension system for battery charge | Ms. Vaishali Goyal |
| Thermoacoustic Heat Engine | Mr. Gurnam Singh |
| Automatic object rejection usuing conveyor belt | Mr. Gurwinder Singh |
| Topic Switch robotic Arm | Mr. Sukhwant Singh |
| Multy Function Machine | Mr.Gurwinder Singh |
| Hydraulic ram | Mr. Lalit Kapoor |
| Pneumatic Brake | Mr. Lalit Kapoor |
| Safety Measures in Atomobiles | Ms. Vaishali Goyal |
| Air Compressor | Mr. Sukhjinder Singh |
| Vertical Axis Wind Turbine | Mr. Lalit Kapoor AND Mr Shivam Sharma |
| Hydraulic Brakes | Dr. Tejeet Singh |
| Conveyor Belt used in Industry | Mr. Munish Dhir |
| Pneumatic Based Robotic Arms | Mr. Gurwinder Singh |
| Pneumatic Punching Machine | Mr. D.P.Kashyap |
| Design, Analysis, Implementation of Hydel Power Project To Conserve Energy | Mr. Sukhwant Singh |
| Walking Robot | Dr. R.S. Bhatti and Mr J P Singla |
| Mechanical Blackboard Cleaner | Dr. Tajeet Singh |
| Hand operated of Hydraulic Press | Dr.R.S.Bhatti |
| Desert Cooler cum Air Conditioner | Mr. Gurnam Singh |
| Hydraulic Arm | Mr. Sukhjinder Singh |
| Ram Pump | Mr. Sukhjinder Singh |
| Automatic Car Jack | Mr. Sukhjinder Singh |
| Fire Fightinh Robot | Mr. Gurnam Singh |
| ABSys.(Anti Breath system) | Mr. Sukhjinder Singh |
| Blade Less Fan | Vaishali Goyal |
| Step Up Lifter | Dr. Rakesh Kumar and Mr Munish Kumar |
| Energy through Busy Road | Mr. Veerpal Soi and Mr Shivam sharma |
| Tesla Turbine ( Design & Fabrication to home applications | Mr. Jawala parshad singla |
| Hubless- Spokeless Bicycle Wheel | Mr. Jwala Prasad Singla |
| Pedal Operated Vaccum Cleaner | Mr. Jwala Prasad Singla |
| Air Compressor | Mr. Sunkhjinder Singh |

JAN-JUN 2014

|  |  |
| --- | --- |
| Name of Project Guide | Name of Project |
| Dr. M. K. Kushwaha | Spring Based shoker with Electricity generation |
| Dr. Arun Kumar Asati | Design Calculation fo 50 KW solar panel system for mechanical block A Dissertation |
| Dr. Rakesh Kumar | Plant re- layout of Cement Pipe Making |
| Prof. Vivek Sood | Plant re-layout study for combine harvestopt manufacturing Plant |
| Prof. Sukhwant Singh | Automatic Braking System |
| Dr. Neelkanth Grover | Leaf Collector Machine |
| Prof. J. K. Agarwal | Syringe Based Hydraulic Ram |
| Dr. Tejeet Singh | Solar Pump |
| Prof. Vaishali Goyal | Re -genrative Braking system |
| Prof. R. P. Singh | Steam Engine |
| Prof. Gazalpreet Singh | Electro Colouring and Tribological Testing of commercial Grade A. C. Anodized Aluminium |
| Prof. Manjinder Singh | Regenrative Shock Absorber |
| Dr. Rajbir Singh Bhatti | Design & Fabrication of Solar Grass Cutter |
| Prof. Munish Kumar | Single Paddle Control Vehicle with Electricity Generaion |
| Prof. Dharampal | Electricity Generaion by Dancing Floor |
| Prof. Gurnam Singh | Pnematic Based Soil Pressing machine |
| Prof. Sukhjinder S. | Rain activated Wiper System |
| Prof. Jwala Prasad | Automatic fooding System of Poultry Farm |
| Prof. Veerpal Soi | Hydraulic Bridge |
| Prof. Ankush Batta | Ball Grinding Machine |
| Prof. Hitesh Uppal | Automated Multi Stage Car Parking System |
| Prof. Harish Mittal | Shoe Polish Machine |
| Prof. Mukesh Kumar | Can Crusher with Pnematic System |
| Prof. Jyoti | Double Stage Evaporative Cooling Tower |
| Prof. Sheenam | Eddy Current Brakes |
| Prof. Sandeep Kaur | Automatic Menthol Oil Boiler |
| Prof. Supriya | Hydraulic Crane |
| Prof. Gurnam Singh | Experimental optimization of parameters of EDM on En24 by using different tool Material |
| Prof. Sukhjinder S. | Hydraulic Press |
| Prof. Jwala Prasad | Advance Railway Crossing System |
| Prof. Veerpal Soi | Anti Runaway design Diesel engine |
| Prof. Sukhwant Singh | Leaf Collecting Machine |

**Department of Computer sc. & Engg.**

**List of Students’ Research Work**

1. Performance analysis of multicasting protocols.

2. Evaluating differentiated services on NS-2.

3. Evaluating impact of DDoS attacks against internet services on DETER testbed.

4. Intrusion detection system using Honeypots.

5. Detection of DDoS attacks using Source IP Address and network address based entropy.

6. Analysis of Selective Forwarding Attacks in Wireless Sensor Networks.

7. Simulation and Performance Analysis of DSR, GRP, OLSR (MANET). Routing Protocol using OPNET.

8. Location Based Services in Mobile Communication Using GPS and Cell-ID.

9. Emulation of DDoS Defenses using DETER Testbed.

10. Distinguishing DDoS attack from Flash Event using Real World Datasets.

11. The ROI Segmentation technique for feature extraction from human facial image.

12.A COMPOSITIONAL APPROACH OF RELIABLE AND EFFICIENT CLOUD SERVICE SELECTION

13. Detection and prevention of wormhole attack in MANET using DSR protocol.

14.Phishing Defense Mechanism using LinkGuard Algorithm.

15.An improved Method of Biorthogonal Wavelet families for Image Compression.

16. An improved Median Filter for Denoising Grey Scale Images.

17.Detection & Prevention of Sink Hole Attacks on MANET Reactive Protocols.

18.Ant Colony Optimization for Improving Network Lifetime in Wireless Sensor Networks.

19.Efficiency Measurement for Stress Management in Heterogenous 2D Mesh Processor.

20.Advanced Memory Reusing Mechanism for Virtual Machines.

21.Detection of IRC based Botnets.

22.Multistage Steganography for secure Data communication using Least Significant Bit Edge Detection (LSB-ED).

23.Optimization of Wireless Sensor Networks using Bacteria ForagingOptimization.

24.Implementation and Analysis of Image Segmentation using Bacteria Foraging Optimization Technique.

25.A Systematic Way of Hybrid Model Design and Comparative Analysis of

EBGM and Eigen Values for Biometric Face Recognition Using Neural Network.

26.Fuzzy Logic Based Edge Detection Technique for Gray Scale Images.

27.Evaluation of Refactoring Opportunities for Different Source Codes in a Machine Learning Environment.

28.Comparative Investigation of Different Transform Coding Techniques for Lossy Image Compression.

29.Comparative Assessment of Exact and Evolutionary Techniques for Solving Knapsack Problem.

30.Implementation and Analysis of DWT-SVD based Digital Image Watermarking Technique under Various Attacks.

31.Image Steganography Using Hybrid Edge Detection and First Component Alteration Technique.

32.Semi Blind DWT-SVD Video Watermarking using High Frequency Band.

33.Random Selection of Frames using Secret Key for the Implementation of SVD-3 Level DWT Video Watermarking.

34.Design of artificial intelligence based intrusion detection technique.

35.Extrusion Based Detection System.

36.Detecting Intrusions in Educational Institutes: Case Study

37.Measuring impact of DDoS Attacks against Web Services using trace driven simulations.

38.Comparison and implementation of AQM techniques in routers to prevent aggressive flows in networks.

39.Characterization of DDoS attacks distributions from real data sets and

emulation based experiments on DETER testbed.

40. Comparative Study of various DDoS Defense schemes using DETER testbed.

41.IP traceback using Port marking in IPv6 for flooding based DDoS attacks.

42.Feature Selection approach for Intrusion Detection

43.An Effective Combination for AI based ensembles for intrusion detection.

44.A Comparative analysis of AI based techniques to detect social engineering

Attacks.

45.Defending from RREQ flooding attacks in MANETS in military applications

under group mobility.

46.QOS improvement in AOMDV through backup and stable path routing .

47.Multiphase graphical based authentication in cloud computing48.Detection of HELLO flood attack on the LEACH protocol in WSN.

49.Detection and prevention of sink hole attack on MANET reactive protocols50. Analysis of traffic engineering based security technologies in wireless mesh

networks under flooding attacks.

51.Mitigating impact of black hole attack in MANET

52.Analysis of peer to peer multimedia streaming.

53.Supervised Machine Learning techniques for intrusion detection : A Comparative study

54. Characterizing impact of Black-Hole Attack on Elastic and Inelastic Applications

in MANETs

55.Study of Hacking techniques and ways to prevent

56. Design of QoS-Aware ODMRP with limited control overheads

57.Detection and avoidance of blackhole attack in AOMDV protocol in MANETs

58. Characterization of malicious head against hello flood attacks in LEACH protocol.

59.Traffic aware load balancing in AOMDV in mobile adhoc networks

**Annexure II**

**Training programmes for faculty & students**

**Department of Chemical Engg.**

**Details of Workshops/ training programs organized by the dept.**

* One week Faculty Development Program titled “Recent Trends in Polymers, Composites & Their Engineering Applications” in collaboration with CIPET Amritsar from 16-20 September 2013 under TEQIP.

**Department of Civil Engg.**

**Details of workshops training programmes organised by the Department**

|  |  |  |  |
| --- | --- | --- | --- |
| Sr. No. | Topic of Faculty development Programme | Period | Conducted by |
| 1 | Managerial Skills | 09/09/2013 to 13/09/2013 | N.I.T.T.T.R., Chandigarh |

**Department of Electrical Engg.**

Seminars/Conferences/Workshopsorganized&thesourceoffunding

a) National

Workshop

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Sr.No | Name | Organized by | Organized for | Dates | Funding |
| 1 | Microcontroller and PLC | Electrical Engg Dept with Advance tech Chandigarh | Batch 2011 (EED) | 2/04/14 to 4/04/14 | TEQIP II |

FDP

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Sr.No | Name | Organized by | Organized for | Dates | Funding |
| 1 | PLC | Electrical Engg Dept with IATC Siemens Chandigarh | Faculty of Electrical and Electronics Engg | 2/09/13 to 6/08/13 | TEQIP II |
| 2 | Moelling and simulation in Advanced Matlab Enviroment | Electrical Engg Dept with Mathworks through Design Tech Jalandhar | All the faculty members of Engg colleges | 25/11/13 to 29/11/13 | TEQIP II |

Industrial visit

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Sr.No | Organized by | Name of industry with address | Organized for | Dates | Funding |
| 1 | Electrical Engg Dept | IATC SIEMENS, PKL | Students batch 2010-2014 | 20/09/13 | TEQIP II (IIIC) |
| 2 | Electrical Engg Dept | IATC SIEMENS, PKL | Students batch 2011-2015 | 28/10/13 | TEQIP II (IIIC) |
| 3 | Electrical Engg Dept | 220KV SUBSTATION FZR CANT | Students batch 2011-2015 | 28/01/14 | NIL |
| 4 | Electrical Engg Dept | ADVANCE TECH CHANDIGARH | Students batch 2012-2014 | 24/03/14 | TEQIP II |

b)International

Conference

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Sr.No | Name | Organized by | Organized for | Dates | Funding |
| 1 | International Conference on Communication Computing & Systems (ICCCS) | Department of Electrical Engineering,  Department of Electronics & Communication Engg. and  Department of Computer Sc.& Engg. |  | TEQIP II | TEQIP II |

**Department of Mechanical Engg.**

**DETAILS OF WORKSHOPS/TRAINING PROGRAMMES ORGANISED BY THE DEPARTMENT:**

|  |  |  |  |
| --- | --- | --- | --- |
| **S No** | **Topic/Title** | **Date/Year** | **Source of Funding** |
| **1** | **Role of Communication, Motivation and Team- Building in Enhancing the Performance of Teachers** | **25 May ‘ 2013** | **TEQIP-II** |
| **2** | **Workshop on Mechatronics by Medhavi Industries, Chandigarh** | **19.3.2013 to 20.3.2013.** | **TEQIP-II** |
| **3** | **Workshop on Solidworks by CAD Center Bathinda.** |  | **TEQIP-II** |
| **4** | **National Conference on Advances In Manufacturing Systems** | **5-6 Sept’2014** | **TEQIP-AICTE-ISTE** |

**LIST OF SHORT TERM COURSES ARRANGED**

|  |  |  |  |
| --- | --- | --- | --- |
| **S NO** | **TITLE** | **VENUE** | **DATE** |
|  | **Multi Criterion Optimization Tools In Research** | **SBSSTC, FZR** | **21.5.12 TO 1.6.12** |
|  | **Research Methodology- Tools And Techniques** | **SBSSTC, FEROZEPUR** | **3.12.12 TO 7.12.12** |
|  | **Soft Skills For Technical Teachers** | **SBSSTC, FEROZEPUR** | **2.9.13 TO 6.9.13** |
|  | **Role Of Industrial Engineering And Design In Present Scenario** | **SBSSTC, FEROZEPUR** | **16.9.13 TO 20.9.13** |
|  | **Strengthening Industry Institute Interaction** | **SBSSTC, FEROZEPUR** | **23.9.13 TO 27.9.13** |
|  | **Futuristic materials** | **SBSSTC, FEROZEPUR** | **30.9.13TO 05.10.13** |

**Department of Computer Science & Engg.**

**List of STC/Workshops organized**

|  |  |  |  |
| --- | --- | --- | --- |
| **Sr. No.** | **Title of STC/Workshop** | **Duration** | **No of Participant** |
|  | Workshop on “Mobile Application Development” from 18-19th Feb 2014. | 2 Days | 57 |
|  | STC on “Cloud Computing” from 28th Oct- 1st Nov 2013. | 5 Days | 30 |
|  | STC on “New Computing and Emerging Technologies in the ICT and Modern Teaching Tools” on 26th-30th Aug 2013. | 5 Days | 90 |
|  | Expert Lecture on “Current Technology Awareness” on 21-08-2013 by Navjot Singh, Technical Director, Weavebytes, Chandigarh. | 1 Day | 90 |
|  | Expert Lecture on “Mobile Application n Development” on 19-08-2013 by Manu Mehra, Director, V-Serv Solutions, Ludhiana. | 1 Day | 73 |
|  | Expert Lecture on “Software Safety” on 09-08-2013 by PankajVyas, Asso. Professor, CSE, BITS, Pilani. | 1Day | 35 |

**Department of Electronics & Comm.**

Seminars/Conferences/Workshopsorganized&thesourceoffunding

a) National b) International

a)National

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Module Description** | **Any other contributory Inst./ Industry** | **Developed / organized by** | **Duration** | **Resource Persons** | **Target Audience** | **Usage and citation etc.** |
| Organizing Two-Week STC by ECE deptt. 4-15 July 2011 | AICTE sponsored | Dr. Satvir Singh (ECE) | Two weeks | Dr. Satvir Singh, Dr J S Saini, Dr Arun Khosla, Dr Rakesh Sharma, Dr A. K Tyagi, Dr Neel Kanth Grover | B.Tech, M.Tech, Phd students and Faculty | Project designing, Research |
| Organized workshop under the name of “Network security“ | Institution | Mr Vishal sharma | Two Day | Appin Technology, New Delhi | M.Tech, Phd and B.Tech students and Faculty | Practical usage Project designing |
| One week TEQIP Course organized by ECE Deptt. From (26th Nov. 2012 to 30th Nov. 2012) | Department | Dr. Satvir Singh (ECE)  Vikram Mutneja  Inderjit Singh Gill | One WEEK | Dr. Satvir Singh, Dr J S Saini, Dr Arun Khosla, Dr Rakesh Sharma, Dr .Neel Kanth Grover | M.Tech, Phd and B.Tech students and Faculty | Project designing, Research |
| Hands on Training on Ansoft HFSS Software | TEQIP Phase-II Sponsored | Mrs. Rajni | Two days | Mr. Raja  Innovent Engg. Solutions Pvt. Ltd.,Bangalore | M.Tech, Phd and B.Tech students and Faculty | Project designing, Research |
| Hands on Training on Labview Software | TEQIP Phase-II Sponsored | Dr. Satvir Singh | Two days | Mr.Vipin Sarin  Maffick Instruments, Ambala | M.Tech, Phd and B.Tech students and Faculty | Project designing, Research |
| One week course by ECE Deptt.on “Recent Trends in Optical and Wireless Communication System Design” (9th Sept 2013 to 13h Sept.. 2013) | TEQIP Phase-II Sponsored | Mr. Sanjeev Dewra,  Mrs. Rajni,  Mr. Vishal Sharma,  Ms. Jaswinder Kaur, Mr. Vikram Mutneja | One week | Experts from Industry | M.Tech, Phd and B.Tech students and Faculty | Project designing, Research |
| One week course by ECE Deptt. on Digital Image, Video and Medical Image Processing (23Sept. 2013 to 27th Sept.. 2013) | TEQIP Phase-II Sponsored | Mr. Sanjeev Dewra,  Mrs. Rajni,  Mr. Amit Grover  Ms. Navdeep Kaur, Mr. Vikram Mutneja | One week | Experts from Industry | M.Tech, Phd and B.Tech students and Faculty | Project designing, Research |
| One week course by ECE Deptt. on “Photonics” (21Octth 2013 to 25h Oct. 2013) | TEQIP Phase-II Sponsored | Mr. Sanjeev Dewra, Mrs. Jaswinder Kaur  Mr. Vishal Sharma, Mr. Chakshu Goel | One week | Dr. R.S.Kler, Dr. A.K. Tyagi, and Experts from Industry | M.Tech, Phd and B.Tech students and Faculty | Project designing, Research |

**Department of Applied Sciences & Humanities**

Seminars/Conferences/Workshops organized & the source of funding

* A National Level One Week Short Term Course on Engineering Materials under TEQIP (Phase-II) during December 17-21, 2012. **(National /TEQIP)**
* A National Level One Week Short Term Course on “Soft Skills for Technical Teachers under TEQIP (Phase-II) during September 2 - 6, 2013. **(National /TEQIP)**
* A National Level Two Week Short Term Course on “Analytical Techniques for detection of Environmental Pollutants” from December 16-27, 2013 at SBS STC, Ferozepur. (**National/TEQIP).**

**Annexure III**

**Details of prioritized research area of the faculty**

**Department of chemical Engg.**

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Qualification | Designation | Specialization |
| Dr. Rajeev Kumar Garg | B.E. (Chem Engg.), PU Chandigarh, 1992  M.E. (Chem Engg.), PU Chandigarh, 1995  Ph.D. (Chem Engg.), IIT Delhi, 2009 | Professor | Modelling and Simulation |
| Mrs. Balpreet Kaur | B. Tech. (Chem Engg), PTU Jalandhar, 1998  M.Tech. (Env. Sc Engg), PTU Jalandhar, 2010 | Associate Professor | Environmental Science |
| Mr. Rajiv Arora | B.Tech. (Chem & Bio), GNDU Amritsar, 1995  M.Tech. (Chem Engg.), PTU  Jalandhar, 2008  Pursuing PhD from PU Chandigarh | Associate Professor | Modeling and Simulation |
| Mr. Pankaj Kalra | B.E. (Chem Engg.) PU Chandigarh, 1997  M.Tech. (Chem Engg.), PTU Jalandhar, 2008  Pursuing PhD from PTU Jalandhar | Associate Professor | Modeling and Simulation |
| Mr. Raj Kumar | B.E. (Chem Engg.), PU Chandigarh, 1991  M.Tech. (Env. Sc Engg), PTU Jalandhar, 2011 | Associate Professor | Environmental Science |
| Mr. Amit Arora | B.Tech. (Chem Engg), PTU Jalandhar, 2000  M.Tech. (Env. Sc Engg), PTU Jalandhar, 2011  Pursuing PhD from IIT Roorkee | Assistant Professor | Environmental Science |

**Department of Civil Engg.**

Details of prioritized research area of faculty:

|  |  |  |
| --- | --- | --- |
| Sr. No. | Name of Faculty | Area of research |
| 1 | Er. Parampreet Kaur | Geotechnical Engg. |
| 2 | Er. Boharsingh | Geotechnical Engg. |
| 3 | Er. Dapinderdeep Singh | Environmental Engg. |
| 4 | Er. Gurpreet Singh | Highway Engg. |
| 5 | Er.Gurtej Singh | Soil Mechanics & Foundation Engg. |

**Department of Electrical Engg.**

**Facultyprofilewithname,qualification,designation,specialization,**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Sr. No. | Name | Qualification | Designation | Specialization | No.ofYears of Experience | No.ofPh.D.  Students  guidedforthe  last4years |
|  | Dr. Kultar Deep Singh | PhD | Associate Professor | Power System | 8yrs | 3 students regst. |
|  | Mrs. Navneet Kaur | M.Tech | Assistant Professor | Power System | 13yrs | - |
|  | Ms. Anupam Mittal | M.Tech | Assistant Professor | Power System | 9 yrs | - |
|  | Mrs. Maninder | M.Tech | Assistant Professor | Power System | 1yr.+9 month | - |
|  | Mr. Harinderpal Singh | PhD (Pursuing) | Assistant Professor | Power System | 3yrs 8 months | - |
|  | Mr. Shanky Goyal | M.Tech | Assistant Professor | ECE | 1yrs 2 months | - |
|  | Mr. Inderjeet Singh Sandhu | M.Tech | Assistant Professor | Power System | 1yrs10 months | - |
|  | Mr. Vishal Puri | PhD (Pursuing) | Assistant Professor | EEE | 2yrs | - |
|  | Mr. Shammi Bahel | M.Tech ( pursuing) | Lecturer |  | 2yrs 6 months | - |
|  | Mr. Sandeep Kumar | B.Tech | Lecturer |  | 2yrs | - |
|  | Mr. Major Singh | M.Tech ( pursuing) | Lecturer |  | 3 yrs 2 months | - |
|  | Ms. Manpreet Kaur | M.Tech ( pursuing) | Lecturer | Power System |  | - |

**DEPARTMENT OF MECHANICAL ENGG.**

**DETAILS OF PRIORITIZED AREA OF RESEARCH:**

|  |  |  |
| --- | --- | --- |
| Name of the faculty | Qualification, | Area of Research/Specialization |
| Dr. T.S. Sidhu | Ph.D Mechanical Engg, M.Tech Mechanical Engg  B.Tech, ME  MBA | Material Engg |
| Dr. M. K. Kushwaha | Ph.D, Tribology of Nano structured composite, M.Tech-Engg Materials  B.Tech, ME | Tribology of nano structured composite, Engg materials |
| Mr.Nripjit Singh | Ph.D Mechanical Engg,  M.Tech Production Engg  B.Tech, PE | Composite materials and Production |
| Dr.A. K. Asati | Ph.D  Thermal Engg. | Thermal engineering |
| Dr.N. K. Grover | Ph.D.-ME  M.Tech-Rotodynamic Engg  B.Tech-ME | Thermal  engineering, modelling and  simulation, heat transfer |
| Dr. Rakesh Sharma | Ph.D.-ME&IE  M.Tech-ME  B.Tech-ME&PE | Manufacturing Systems, Design of Manufacturing systems, Industrial Engineering and Operations Management, Management of operations in Technical Institutions |
| Dr. Tejeet Singh | Ph.D-ME  M.Tech-IE  B.Tech-IE | Machine Design and  Industrial Engg |
| Mrs. Vaishali Goyal | M.Tech-ME&PE  B.Tech-PE | WELDING |
| Mr. Gazal Preet Singh | M.Tech-IE  B.Tech-IE | Industrial Engg |
| Dr. Rajbir Singh Bhatti | Ph.D-ME  M.Tech-IE  B.Tech-IE | Industrial Engg and  Supply chain  optimization |
| Mr. Manjider Singh | PhD-Industrial& PE  M.Tech-IE  B.Tech-IE | Total Productive Maintenance (TPM) |
| Mr. Ravinder Pal Singh | PhD-Persuing  M.Tech-PE  B.Tech-ME | WELDING |
| Mr. J.K. Aggarwal | PhD-Persuing  M.Tech-ME&PE  B.Tech-PE | WELDING |
| Mr. Munish Kumar | M.Tech-ME  B.Tech-PE | Mechanical Engg. |
| Mr. D.P. Kashyap | M.Tech-ME  B.Tech-PE | MATERIALS |
| Mr. Gurnam Singh | M.Tech-PE  B.Tech-ME | Production Engg. |
| Mr. JwalaParshad | PhD-Persuing  M.Tech-PE  B.Tech-ME | TRIBOLOGY |
| Mr. Sukhjinder Singh | PhD-Persuing  M.Tech-PE  B.Tech-ME | DESIGN |

**Department of Computer Sc. & Engg.**

**Priortized Research Area:**

1. Network Security
2. Image Processing
3. Cloud Computing
4. WSN
5. Parallel Computing

**Department of Electronics & Comm.**

Facultyprofilewithname,qualification,designation,specialization

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Name** | **Qualification** | **Designation** | **Specialization** | **No. of Years of Experience** | **No. of Ph.D students guided for the last 4 years** |
| Mr. Sanjeev Dewra | M.Tech, PhD(Pur.) | Associate Professor | Optical Fiber Communication | 21yrs | Nil |
| Dr. Satvir Singh | PhD. | Professor | Soft Computing | 14yrs | Nil |
| Mrs. Rajni | M.Tech  PhD(Pur.) | Associate Professor | Wireless Communication and Antenna Design | 16yrs | Nil |
| Dr. Vishal Sharma | PhD. | Assistant Professor | Optical & Wireless Communication Systems & network | 10yrs | Nil |
| Mr. Vikram Mutneja | M.Tech  PhD(Pur.) | Assistant Professor | Image Processing ,Embedded Systems | 12yrs | Nil |
| Mrs. Jaswinder Kaur | M.Tech  PhD(Pur.) | Assistant Professor | Wireless Communication Systems | 9yrs | Nil |
| Mrs. Geeta Arora | M.Tech | Assistant Professor | Embedded Systems | 17yrs | Nil |
| Mr. Inderjeet Singh Gill | M.Tech  PhD(Pur.) | Assistant Professor | Digital System Design/Imaging Processing /WSN | 12yrs 8 months | Nil |
| Mr. Amit Grover | M.Tech  PhD(Pur.) | Assistant Professor | Wireless Communication Systems | 13yrs | Nil |
| Mr. Chakshu Goel | M.Tech | Assistant Professor | VLSI | 12yrs | Nil |
| Ms. Navdeep Kaur | M.Tech | Assistant Professor | Neural Network /Wireless Communication systems/VLSI | 6.5yrs | Nil |
| Mrs. Ramandeep Kaur | M.Tech | Assistant Professor | Embedded systems | 1yr | Nil |
| Mr. Gurpreet Singh | M.Tech | Assistant Professor | Wireless Communication systems | Nil | Nil |
| Ms. Mini Lumba | M.Tech | Assistant Professor | Optical Communication Systems | 1yr | Nil |
| Ms. Riya | M.Tech | Assistant Professor | Wireless Sensor Networks | 1yr | Nil |
| Ms. Paras Mani | M.Tech | Assistant Professor | VLSI | Nil | Nil |
| Ms. Aruna Rani | M.Tech | Assistant Professor | Optical Fiber Communication | Nil | Nil |
| Mr. Vivek Soi | M.Tech  PhD(Pur.) | Assistant Professor | Wireless Communication systems | 5yrs | Nil |

**Annexure IV**

**Research Projects**

**Dept. of chemical Engg.**

**Research Projects till date**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **S.No.** | **Project Title** | **File No. and Date** | **Coordinators** | **Amount** | **Period** | **Status** |
| 1 | Modernization of Computational Lab | AICTE-MODROB 12/AICTE/RIFD/MOD(Policy-2)-99/2012-13 dated 5.02.2013 | Dr Rajeev Kumar Garg | 5.75 Lac | 2013-2014 | In Progress |
| 2 | Modernization of Heat Transfer Lab | AICTE-MODROB 8024/RIFD/MOD-264/2011-12 dated 21.12.2011 | Dr Rajeev Kumar Garg | 1.5 Lac | 2011-2012 | Completed |
| 3 | Modernization of Mass Transfer Lab | AICTE-MODROB 8023/RID/BOR/MOD-97/2005-06 dated 17.02.2006 | Dr Pushpa Paul | 10 Lac | 2005-2006 | Completed |
| 4 | Waste Management, Effluent Treatment and Recycling | AICTE-RPS 8021/RID/NPROJ/TAP-17/2002-03 dated 21.12.2002 | Dr Pushpa Paul Mr Raj Kumar | 20 Lac | 2002-2003 | - |

**DEPARTMENT OF MECHANICAL ENGINEERING**

1. **Research projects till date:**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Name of Project | Sponsorig  authority | Project Coordinator | Scheme | Amount | Year of receiving | Current status |
| Total Turnaround strategy for loss making psu | AICTE | RS Bhatti | RPS Project | 2.25 Lakhs | 2012 | In Progress |
| Modernization of CAD Lab | AICTE | NK Grover | MODROB  project | 11.00 Lakhs | 2012 | Completed in 2013 |
| Paramatric Study of HVOF | AICTE | TS Sidhu | RPS Project | 12.00 Lakhs | 2008 | In Process |
| Modernization of Material and Metallurgy Laboratory | AICTE | Dharmpal | MODROB  Project | 15 Lakhs | 2008 | In Progress |
| Modernization of Foundry and Welding Laboratory | AICTE | NM Suri | MODROB  Project | 11.00 Lakhs | 2005 | Completed in 2007 |
| Development of Manufacturing Process Laboratory | AICTE | TS Sidhu | MODROB  Project | 10.00 Lakhs | 2003 | Completed in 2005 |
| Modernization of Thermal Engg Laboratory | AICTE | NK Grover | MODROB  Project | 4.00 Lakhs | 2002 | Completed in 2004 |

**Department of Computer Sc.& Engg.**

**Research Projects:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Sr. No.** | **Faculty Name** | **R&D /Consultancy Project Title** | **Year** | **Amount** |
|  | Dr. Krishan Kumar | Development of Test Bed facility for  evaluation of Defense techniques  against DDoS Attack | 2012 | 7.5 lacs |
|  | Dr. Monika Sachdeva | Modernization of Networking lab | 2012 | 8.5 lacs |

**Department of Applied Sciences & Humanities**

**Research Projects :**

* DST Project entitled “Synthesis characterization and use of d-glucose based non-ionic Gemini surfactantants as micellar and reverse miceller mimics ” from 2007 – 2011 (13.00 Lakhs).

2. DST Project entitled “A Study of Microwave Processing of partially Stabilized Zirconia (PSZ) Ceramics” from 2002 – 2004 (12.00 Lakhs).

1. AICTE Project entitled “Material Engineering High Temperature Investigation Lab” rom 1999-2002 (15 Lakhs)

4. AICTE Project entitled “Processing of Solid Electrolytes for ITSOFC by Microwave Energy” from 1999-2002 (15 Lakhs)

5. AICTE Project entitled “Laser Technology & Fibre Optics Lab” from 2005 – 2007 ( 5 Lakhs)

6. AICTE Project entitled “Development of Colloidal & Surface Chemistry Lab” from 2003 - 2005 ( 12 Lakhs)

7. AICTE Project entitled “Investigations on Molecular Chem. of Zr & Hf in lower oxidation states ” from 2003 - 2006 ( 6 Lakhs)

8. AICTE Project entitIed “Industry Institute Interaction Partnership Cell” in 2003 (7 Lakhs)

9. AICTE Project entitIed “Industry Institute Interaction Partnership Cell” in 2003 (7 Lakhs)

10. AICTE Project entitIed “Numerical Analysis Lab” in 2007- 12 (8 Lakhs)

11. UGC sponsored Project entitled “Environmentally Benign Protocol using plant based Biomass for Pollutant removal from Waste Water” from 2013 (8 Lakhs Contd…………..)

**Annexure V**

**Research facilities available in the Institute**

**Department of Chemical Engg.**

* **MICRO PROCESSOR GAS CHROMATOGRAPH**

**Department of Civil Engg.**

|  |  |  |
| --- | --- | --- |
|  | **Laboratory** | **Major Equipments** |
| 1 | Concrete Technology Lab. | 2000 KN capacity compression testing machine, Equipment for non-destructive tests, Concrete Mixer Pan Type, Flexure Testing Machine, Automatic Mortar Mixer, Vibrating Table |
| 2 | Geotechnical Engg. Laboratory | Triaxial testing apparatus, Direct Shear Test Apparatus, Consolidation Test Apparatus, Electronic Balances of different capacities, Sieves and Automatic sieve shaker, Electrical Oven, Unconfined Compression Testing Machine, Lab 3Permeability Apparatus, Universal Automatic Compactor |
| 3 | Transportation Engg. Laboratoty | Marshall stability test equipment with digital display, Modified Marshall test equipment with automatic compactor, Bitumen Extractor, Digital Ductility Apparatus, Benkelman Beam Test Equipment, CBR Machine, Abrasion Value Test Equipment, Impact Value Test Equipment |
| 4 | Strength of Materials Lab. | UTM, Rockwell &Brinell Hardness Testing Machine, Spring testing Apparatus, Torsion Testing Machine, Charpy&Izod Testing Machine |
| 5 | Environmental Engineering Lab | BOD Incubator, pH meter, COD setup, Digital Dissolved oxygen meter, Muffle furnace, High Volume Sampler |

**Department of Mechanical Engg.**

**RESEARCH FACILITIES AVAILABLE IN THE DEPTT:**

|  |
| --- |
| 1. Hot mounting apparatus |
| 1. Cold mounting apparatus |
| 1. Precision balance |
| 1. Micro hardness Tester |
| 1. Temperature controlled Silicon carbide tube furnace |
| 1. Tribometer |
| 1. Image analyzer |
| 1. Air jet erosion tester equipments |
| 1. Mitutoyo portable surface tester ( Roughness Tester) |
| 1. Metal Inert gas Welding machine |
| 1. Tungsten Inert gas Welding machine |
| 1. Submerged gas welding Machine |

**Department of computer Sc.& Engg.**

**Qualnet, Rational SEED** program are available in Department for research work.

**Department of Applied Sc & Humanities**

|  |  |
| --- | --- |
| 1) Simultaneous Thermal Analyzer System (DTA/TGA/DSC) | 2) Atomic Absorption Spectrometer. |
| 3) Particle size Analyzer | 4) UV, visible IR spectrophotometer (02) |
| 5) FTIR | 6) Gas Chromatograph |
| 7) Impedance Analyzer | 8) Nano-voltmeter. |
| 9) Precision Pico-ammeter/power supply unit. | 10) Fibre optic & data transfer lab module. |
| 11) Fringe Capture Michelson Interferometer | 12) Hardness Tester |
| 13) Tensile testing machine for polymers | 14) High Temperature Furnaces |
| 15) Hydraulic Press. | 16) Precision Electronic Balance |
| 17) Digital MP Apparatus | 18) Vacuum Film Evaporator |

|  |  |
| --- | --- |
| 19) Digital MP Apparatus | 20) Vacuum Film Evaporator |
| 21) Muffle furnace 1200 C | 22) Muffle furnace 1450 C |
| 23) Digital Balance |  |

**Annexure VI**

**List of Publications**

**Department of Chemical Engg.**

**Details of publications of each faculty member along with Impact factor & ISSN No. and books published or chapter in books.**

|  |  |  |  |
| --- | --- | --- | --- |
| Name | No. of Journal publications | No. of National Conference publications (last three years) | No. of International Conference publications (last three years) |
| Dr. Rajeev Kumar Garg | 5 Journal +2 book chapters | 08 | 07 |
| Mrs. Balpreet Kaur | 3 Journal | 05 | 01 |
| Mr. Rajiv Arora | 2 Journal | 06 | 08 |
| Mr. Pankaj Kalra | 3 Journal +1 book chapter | 02 | 01 |
| Mr. Surinder Singh | -- | -- | -- |
| Mr. Raj Kumar | -- | -- | 03 |
| Mr. Amit Arora | 1 Journal +1 book chapter | 18 | 15 |

|  |  |  |  |
| --- | --- | --- | --- |
| Name | List of Publications | National/ International | Name of Journal |
| Dr. Rajeev Kumar Garg | Garg R.K., Krishnan V.V., Srivastava V.K., Prediction of Concentration and Temperature Profiles for Non Isothermal Ethane Thermal Cracking in a Pipe Reactor | International | Korean J. Chem. Engg.  23(4), 531-539, 2006 |
| Garg R.K., Srivastava V.K., Modeling and Simulation of Non Isothermal Thermal Cracker | International | J. Chem. Engg. of Japan  39(10), 1057-4 2006 |
| Garg R.K., Vashishta, M., Srivastava V.K., A Modeling Approach to Reaction of Non Newtonian Fluids in Tubular Reactor | International | Polymer-Plastics Technology and Engg |
| Kalra P., Garg R. K., Grover N. K., Structural Properties of Anode Composite Precursor of a Solid Oxide Fuel Cell Prepared via Combustion Synthesis Route | International | Asian Journal of Engineering and Applied Technology  ISSN 2249-068X Vol-1 No. 2 July-Dec 2012 |
| Kalra P., Garg R. K., Kumar A. , Singh A.P., Electrical characterization of NiO-CGO composites- SOFC anode precursor- prepared via combustion synthesis route | International | International Journal of Innovative research in Science, Engineering & Technology, Vol-3, Issue 5, May 2014. |
| Mrs. Balpreet Kaur | Rajoriya S., Kaur B. , Saharan V. K. 3, Kinetics and Isotherm on the Adsorption of Zn (II) from Aqueous Solutions by Natural Bio-sorbents | International | International journal of engineering sciences & research technology, ISSN : 2277-9655 |
| Singh Harjinder, Kaur Balpreet, Pandey O.P., Reduction of Wolframite Ore with Activated Charcoal to Produce Nano Tungsten Carbide | International | INROADS- An International Journal of Jaipur National  University Year : 2014, Volume : 3, Issue : 1s2 First page : ( 276)Last page : **( 279)**  Print ISSN : 2277-4904. Online ISSN : 2277-4912. |
| Rajoriya S., Kaur B. , Adsorptive Removal of Zinc from Waste Water by Natural Biiosorbents | International | International Journal of Engineering Science Invention ISSN (Online): 2319 – 6734, ISSN (Print): 2319 – 6726 Volume 3 Issue 6, June 2014 PP.60-80 |
| Mr. Rajiv Arora | Grover N. K., Arora R., Numerical Studies on Droplet Evaporation at High Ambient Temperature and Pressures | International | International Journal of Advances in Thermal Science & Engineering  Vol. 1 (2), 2010, 133-137 |
| Arora R., Kapoor V., Kumar V., Agnihotri S. Jaiswal M., Esterification of Free fatty acids in waste cooking oil by carbonaceous sulfated acid catalyst: optimization & kinetic study | International | International Journal of Engineering Research Science & Technology, Vol-3, No. 3, August 2014  ISSN 2319-5991 |
| Mr. Pankaj Kalra | Kalra P., Kumar A. , Singh A.P.,  Structural Properties of NiO-CGO Composites Precursor prepared via Combustion Synthesis Route | International | Asian Journal of Chemistry Vol. 21, No. 10 (2009), S157-161 |
| Kalra P., Garg R. K., Grover N. K., Structural Properties of Anode Composite Precursor of a Solid Oxide Fuel Cell Prepared via Combustion Synthesis Route | International | Asian Journal of Engineering and Applied Technology  ISSN 2249-068X Vol-1 No. 2 July-Dec 2012 |
| Kalra P., Garg R. K., Kumar A. , Singh A.P., Electrical characterization of NiO-CGO composites- SOFC anode precursor- prepared via combustion synthesis route | International | International Journal of Innovative research in Science, Engineering & Technology, Vol-3, Issue 5, May 2014. |
| Mr. Amit Arora | Nanotechnology and Its Applications in Drug Delivery: A Review | International | International Journal of Medicine and Molecular Medicine  ISSN:2046 1690 2012;3(1):WMC002867 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name of Faculty | Title of paper | Journal Name & volume | Impact factor | SJR |
| Dr. Rajeev Kumar Garg | A Modeling Approach to Reaction of Non-Newtonian Fluids in Tubular Reactor | Polymer-Plastics Technology and Engineering, [Volume 46](http://www.tandfonline.com/loi/lpte20?open=46#vol_46), Issue 10, 2007, pg 965-971 2012 | 1.481 (©2013 Thomson Reuters, 2012 Journal Citation Reports®) |  |
| Prediction of Concentration and Temperature Profiles for Non Isothermal Ethane Thermal Cracking in a Pipe Reactor | Korean Journal of Chemical Engineering | 1.24 (2013) Thomson Reuters | 0.46 |
| Modeling and Simulation of Non Isothermal Thermal Cracker | Journal of Chemical Engineering of Japan | **0.61** Thomson Reuters | 0.31 |

As available from internet google scholar

|  |  |  |  |
| --- | --- | --- | --- |
| Name of Faculty | [**Citation indices**](javascript:void(0))**All Since 2009** | | |
| [Citations](javascript:void(0)) | [h-index](javascript:void(0)) | [i10-index](javascript:void(0)) |
| Dr. Rajeev Kumar Garg | 4 | 1 | 0 |

**Department of Civil Engg.**

Details of Publications of each faculty member alongwith Impact factor & ISSN no. and Books published or chapter in Books:

|  |  |  |
| --- | --- | --- |
| **Sr. No.** | **Name of Faculty Member** | **Title of Publication** |
| 1 | Er. Parampreet Kaur | Dynamic cone penetrometer based CBR value ISBN : 978-93-80697-63-5 page no.:852-856, 18-19 Feb 2011 |
| Correlation Between soaked CBR value and CBR Value obtained with Dynamic cone penetrometer ISSN-2249-3905, I JREAS, Volume -2, issue-2, page no.:1243-1250, Feb2012 |
| Soil Improvement with Lime ISSN: 2278-1684, 10SR, Volume-1, Issue-1, page no: 51-53,May-June 2012 |
| Use of geosynthetics in Leachate (MSW) management. ISBN: 978-81923777-8-0, Waste and Characterization, Volume-1, page no.: 43-48, 15-16Feb 2013 |
| Concrete self – Healing Capability using Bacterial Action – A Comparative Study: i-manager”s journal on Structural Engg, Vol-2- no.3,Sept- Nov2013 |
| Corelation between DCPT and Other Testsd- A Critical Review, International Sceience Index, (ICSMGE2014)vol-8 no-8, part-vi, in 21-22aug2014 |
| Poster in 17th Punjab Science Congress on 14-16 feb2014 |
| 2 | Er. Bohar Singh | Effect of Lime and Coir Fibre Reinforcement on Soil, National Conference on Trends in Geotechnical Engineering (TGE-2005), page no.: 43-56, April 30, 2005 |
| Effect of Coir Fibre Reinforcement and Lime on Strength and Shear Parameters of Clayey Soil, National Conference on Trends in Geotechnical Engineering (TGE-2005), page no.: 125-139, April 30, 2005 |
| Rice Husk Ash- A useful Engineering Material, National conference on Smart Electronic and Engineering Materials 2010 (SEEMS'10) March 5th-6th, 2010 |
| 3 | Er. Dapinder Deep Singh | Effect on environment by burning different agricultural waste, March-April 2013 in International origination of scientific research journal |
| Study the different parameters of sewage treatment with UASB&SBR technologies, March- April in International origination of scientific research journal |
| Effect of polutted surface water on ground water :A case study of BudhaNullah, March-April in International origination of scientific research journal |
| National conference on advancements in construction technology and management at Indo Global college of Engineering on 17 April,2013, on topic- Ambient air quality – A case study of Ludhiana city |

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**Department of Electrical Engg.**

**Publications:**

**Faculty Name: Dr. Kultar Deep Singh**

• Kultar Deep Singh and Smarajit Ghosh, “A new efficient method for load flow solution of radial distribution networks”, Przeglad Elektrotechionzy (Electrical Review),Vol.12a, pp 66-73,2011.

• Kultar Deep Singh and Smarajit Ghosh, “Voltage Stability index and line loadibility index for radial power distribution networks”, International review of Electrical engineering (IREE), Vol.6, No.7, pp-3111-3121, 2011.

**Faculty Name: Ms. Anupam Mittal**

• Anupam Mittal, Divya Gupta and Rajni, “Genetic algorithm based economic load dispatch solution”, ISPJEE, ISSN 2250-0537, Vol.1, Issue 1,2011.

• Anupam Mittal and Divya Gupta, “Comparison of optimization techniques to solve economic load dispatch problem”, accepted for presentation and Publication in National Conference on Recent Advancements & Innovations in Science and Engineering (RAISE 2012), to be held atGuru Ramdas Institute of Engineering and Technology, Bathinda, Punjab, India,2012.

**Faculty Name: Mrs. Maninder**

• Maninder, Kathuria R. S. and Grover S. “Using agricultural residues as a biomass briquetting: an alternative source of energy”, IOSR Journal of Electrical and Electronics Engineering (IOSRJEEE), Volume 1, Issue 5 ,pp 11-15, ISSN: 2278-1676,2012, Impact factor: 1.45

• Sonia Grover, Rupinderjit Singh Kathuria and Maninder Kaur, “Energy Values and Technologies for Non woody Biomass: as a clean source of Energy”, IOSR Journal of Electrical and Electronics Engineering (IOSRJEEE), Volume 1, Issue 1, pp. 10-14, ISSN : 2278-1676,2012, Impact factor: 1.45.

• Maninder, Inderjeet Singh Sandhu, “Radius wise Analysis of Biomass for Power Generation in

Punjab State”, International Journal of Engineering Research & Technology (IJERT) Vol. 2 Issue 7, July – 2013, ISSN: 2278-0181, pp. 2163-2167, Impact Factor: 1.76.

• Inderjeet Singh Sandhu, Maninder, “ Analysis of losses in power system and its economic consequences in power sector” ,International Journal of Enhanced Research in Science Technology & Engineering, ISSN: 2319-7463 Vol. 2 Issue 7, July-2013, pp: (90-98), Impact Factor: 1.25.

• Inderjeet Singh Sandhu , Rupinderjit Singh Kathuria , Maninder, “Maximization of Revenue Generation by Analysis of Losses in Distribution System Using Matlab Simulation” , International Journal of Engineering Research & Technology (IJERT) Vol. 2 Issue 9, September – 2013, ISSN: 2278-0181, pp. 2113-2118, Impact Factor:1.76.

**Faculty Name: Mr. Harinderpal Singh**

• International Conference: H.P. Singh, Y.S. Brar, D.P. Kothari, “ Multiobjective load dispatch using particle swarm optimization, ” Proceeding of 8th IEEE conference on Industrial Electronics and Application(ICIEA2013), Melbourne, VIC, Australia, pp. 272-277, 2013

• International Conference: H.P. Singh, Y.S. Brar, D.P. Kothari, “ Combined active and Reactive power dispatch using particle swarm optimization, ” Proceedings of Informing Science & IT Education Conference (InSITE), Wollongong, NSW, Australia, pp. 295-304, 2014

• International Journal: A. Kaur, H.P Singh, A. Bharadwaj, “Analysis of Economic Load Dispatch Using Genetic Algorithm, ” International Journal of Application or Innovation in Engineering & Management (IJAIEM),Vol.3.(3), pp. 240-246, 2014

**Faculty Name: Mr. Inderjeet Singh**

• Inderjeet Singh Sandhu, Maninder, “ Analysis of losses in power system and its economic consequences in power sector” ,International Journal of Enhanced Research in Science Technology & Engineering, ISSN: 2319-7463 Vol. 2 Issue 7, July-2013, pp: (90-98), Impact Factor: 1.25.

• Inderjeet Singh Sandhu , Rupinderjit Singh Kathuria , Maninder, “Maximization of Revenue Generation by Analysis of Losses in Distribution System Using Matlab Simulation” , International Journal of Engineering Research & Technology (IJERT) Vol. 2 Issue 9, September – 2013, ISSN: 2278-0181, pp. 2113-2118, Impact Factor:1.76.

•Maninder, Inderjeet Singh Sandhu, “Radius wise Analysis of Biomass for Power Generation in

Punjab State”, International Journal of Engineering Research & Technology (IJERT) Vol. 2 Issue 7, July – 2013, ISSN: 2278-0181, pp. 2163-2167, Impact Factor:1.76.

**Faculty Name: Mr. Shanky Goyal**

• Low Leakage Multi Threshold Level Shifter Design using Sleepy Keeper.D.O.I 10.5120/12671-9038

• Design of Low Leakage Multi Threshold (Vth) CMOS Level Shifter DOI: 10.11591/ijece.v3i5.3166

**Faculty Name: Mr. Shammi Bahel**

• QOS Estimation of IEEE 802.3 under the Influence of IntraDomain Routing Protocols. Volume 4 Number 2 September 2013 pp.1-7 ISSN-0973-7391

**Faculty Name: Mr. Vishal Puri**

• Performance analysis matched filter and MMSE filter Volume 2 • Number 2 IRACST 2012

**Faculty Name: Ms. Manpreet Kaur**

• Harnessing solar energy technologies: Basic review

**Total no. of papers published in national/international journals by faculty and students = 20**

**Department of Electronics & Comm.**

**List of Publications**

**Sh. Sanjeev Dewra**

1. Sanjeev Dewra, “Effect of Fiber non-linearities on the Optical Fiber Communication”, National Seminar on Cutting Edge Technologies in Electronic Communication, pp. 32-33, Sant Harchand Singh Longowal Central institute Of Engineering and Technology, Longowal, March 14, 2004.
2. Sanjeev Dewra, “ Comparative Study of 3G Technologies”, National Conference on Embedded Communication Systems and Networks, pp. 137-138, Institute of Engineering & Technology, Bhaddal, 31st October & 1st November, 2003.
3. Sanjeev Dewra, “Mobile Communication Technologies”, National Symposium on Emerging Trends in Networking & Mobile Communication, pp. 38-39, Institute of Electronics & Telecommunication Engineers, Chandigarh, 5th-6th september, 2003.
4. Sanjeev Dewra, R.S. Kaler, Hardeep Singh, “Analytical-Approach to Higher Order Dispersion through GVD”, National Conference on Electronic Circuits and Communication Systems, pp. 257-259, Thapar Institute of Engineering and Technology, 23rd-24th September, 2004.
5. Sanjeev Dewra, R.S. Kaler, “Crosstalk analysis in an optical network based on optical cross connects with different MZI techniques” pp. 55–59, Optik 124, 2013, doi:10.1016/j.ijleo.2011.11.042, Impact Factor:0.730, SNIP: 0.925, SJR: 0.31, h-index:
6. Sanjeev Dewra, R.S. Kaler, “Performance analysis of optical network based on optical add drop multiplexers with different MZI techniques” pp. 347– 351, Optik 124, 2013, doi:10.1016/j.ijleo.2011.12.060, Impact Factor:0.730, SNIP: 0.925, SJR: 0.31, h-index:
7. Sanjeev Dewra, R. S. Kaler, “Performance evaluation of an optical network based on optical cross add drop Multiplexer” Vol.80 No.8, Journal of Optical Technology, August 2013, <http://dx.doi.org/10.1364/JOT.80.000526>, Impact Factor: 0.24, SJR: 0.24, h-index:15.
8. Sanjeev Dewra, R. S. Kaler “Performance evaluation of optical add drop multiplexers with Mach*–*Zehnder interferometer techniques for dense wavelength division multiplexed system” Vol. 80 No. 9, Journal of Optical Technology, September 2013, <http://dx.doi.org/10.1364/JOT.80.000502>, Impact Factor: 0.24, SJR: 0.24, h-index:15.
9. Aruna Rani, Mr. Sanjeev Dewra “Semiconductor optical amplifiers in optical Communication system-Review” International Journal of Engineering Research & Technology (IJERT), ISSN: 2278-0181, Vol. 2 Issue 10, October – 2013, Impact Factor: 1.76
10. Aruna Rani, Mr. Sanjeev Dewra, “Performance evaluation of DWDM system using Semiconductor optical amplifier in the presence of fiber non-linearities” International Journal of Enhanced Research in Science Technology & Engineering, ISSN: 2319-7463, Vol. 3 Issue 2, February-2014, pp: (301-305), Impact Factor: 1.252.
11. Aruna Rani, Mr. Sanjeev Dewra, “16x10 Gbps optical communication system using optimized Semiconductor Optical Amplifier with low input signal power” proceeding of PTU SPONSORED national conference on latest developments in science engineering and management, pp.357-359, March 2014
12. Aruna Rani, Mr. Sanjeev Dewra “Analysis of confinement factor of SOA for optical communication System” International conference on communication, computing and systems, pp. 247-249, July-2014
13. Garima Arora, Mr. Sanjeev Dewra, “A review on optical Amplifier and its Hybrid configurations” International Journal of Electronics & Communication Engineering Research (IJECER), ISSN: 2321-9718, Vol. 1 Issue 6, November- 2013
14. Garima Arora, Sanjeev Dewra, “Comparison of conventional optical amplifiers at different transmission distance in an optical communication system” proceeding of PTU SPONSORED national conference on latest developments in science engineering and management, pp.259-262, March 2014.
15. Garima Arora, Sanjeev Dewra, “DWDM Transmission using Hybrid Optical Amplifiers” International Journal of Advanced Research in Computer and Communication Engineering, ISSN: 2319-5940, Vol. 3, Issue 4, April 2014, impact factor: 1.770, ISSN:

2278-1021.

1. Garima Arora, Sanjeev Dewra, “Analysis of 64×10 Gbps dense wavelength division multiplexing system using optimized RAMAN-EDFA hybrid optical amplifier” International conference on communication, computing and systems, pp. 250-253, July-2014
2. Sumanpreet, Mr. Sanjeev Dewra, “A review on Gigabit Passive Optical Network (GPON)”, International Journal of Advanced Research in Computer and Communication Engineering, ISSN: 2319-5940, Vol. 3, Issue 3, March 2014, impact factor: 1.770, ISSN:

2278-1021.

1. Rupinder Kaur, Sanjeev Dewra “Duobinary Modulation Format for Optical System- A Review” International Journal of Advanced Research in Electrical, Electronics and Instrumentation Engineering, vol. 3, Issue 8, August 2014, impact factor: 1.686, ISSN: 2278-8875, DOI: 10.15662/ijareeie.

**Ms Rajni**

**International Journal:**

1. **Rajni**, Amit Kr. Kohli and S.S.Pattnaik, “First order Autoregressive Fading Model considering Azimuthal Spreading”, International Journal of VLSI and Signal Processing Applications, Vol. 1, Issue 1, pp 6-11, 2011, (ISSN 2231-3133) **(Online)**
2. Anupam Mittal, Divya Gupta, **Rajni**, “Genetic Algorithm based Economic Load Dispatch Solution”, ISP Journal of Electronics Engineering, Vol. 1, Issue 1, pp. 16-20, October 2011, (ISSN 2250-0537) **(Online)**
3. **Rajni**& Gaurav Sikri, “Reducing Peak to Average Power Ratio by Classical Clipping over BPSK and QPSK in OFDM System,” published for proceedings of International Conference on Recent Advances and Future Trends in Information Technology (IRAFIT 2012) by IJCA Journal Impact factor 0.83) , Issue 8, pp.26-28, March 2012
4. Gaurav Sikri, **Rajni** and Gagan Deep Aul, “Comparison of Clipping and Filtering with Combined DCT & Companding in OFDM system”,International Journal of VLSI & Signal Processing Applications, Vol. 2, Issue 4, (342-347), 2012, (ISSN 2231-3133)
5. [Gaurav Sikri](http://rd.springer.com/search?facet-author=%22Gaurav+Sikri%22), and [**Rajni**](http://rd.springer.com/search?facet-author=%22Rajni%22), “A Comparison of different PAPR reduction techniques in OFDM using various modulations”, International Journal of Mobile Network Comm. & Telematics (IJMNCT) Vol.2, No.4,pp.53-60…show all 2hide, August 2012, **DOI : 10.5121/ijmnct.2012.2406**
6. Puneet Kr. Sharma and **Rajni**, “Analysis of Image Watermarking using Least Significant Bit Algorithm”, International Journal of Information Sciences and Techniques (IJIST) Vol.2, No.4, pp. 95-101, July 2012, **DOI : 10.5121/ijist.2012.2409**
7. **Rajni & Gaurav Sikri,** “Reduction in PAPR in OFDM System using Short Time Fourier Transform with variable window size”,International Journal of Application or Innovation in Engineering & Management (IJAIEM)Volume 2, Issue 1, pp.366-370, January 2013**(ISSN 2319-4847)**Impact factor: [2.379](http://www.israjif.org/ISSN2319-4847.html)
8. Manpreet Kaur**, Rajni** and Parminder Singh, “An Encryption Algorithm To Evaluate Performance of V2V Communication in VANET ”, International Journal on Cryptography and Information Security (IJCIS), Vol.3, No. 2, pp15-22, June 2013 **. (DOI:10.5121/ijcis.2013.3202)**
9. Sunisha Rani, **Rajni** and Anupma Marwaha, “Equiangular Spiral Slot Antenna for C-band Applications”, International Journal ofComputer Applications, Foundation of Computer Science,New York, USA,. Vol.76, Issue 11, pp. 37-41, August 2013.**(DOI: 10.5120/13293-0833) (ISBN:973-93-80877-41-6)**
10. Gurpreet Singh, **Rajni** and Anupma Marwaha, “Design of G-Shaped Defected Ground Structure for Bandwidth Enhancement”, International Journal ofComputer Applications, Foundation of Computer Science,New York, USA, Vol. 75, Issue 9, pp. 7-11, August 2013**(DOI: 10.5120/13137-0516)( (ISBN: 973-93-80877-09-1)**
11. **Rajni**, Anupma Marwaha, “Role of Geometry of Split Ring Resonators in Magnetic Resonance of Metamaterials”, Proceedings of International Conference on Communication Systems (ICCS-2013) October 18-20, 2013 at B K Birla Institute of Engineering & Technology (BKBIET), Pilani, India published inInternational Journal of Electronics and Communication Engineering & Technology (IJECET), Volume 4, Issue 7, pp. 279-285, Dec. 2013**(ISSN 0976 – 6472(Online))**
12. **Rajni** and Inderbir Kaur, “Electrocardiogram Signal Analysis - An Overview”, International Journal of Computer Applications, Vol. 84, Issue 7, pp. 22-25, December 2013. Published by Foundation of Computer Science, New York, USA**(DOI:  10.5120/14590-2826)(ISBN: 973-93-80879-27-5)**
13. **Rajni** and Anutam, “Image Denoising Techniques - An Overview” International Journal of Computer Applications, Vol. 86, Issue 16, pp. 13-17, January 2014. Published by Foundation of Computer Science, New York, USA. **(DOI:  10.5120/15069-3436**) **)(ISBN: 973-93-80879-96-7)**
14. Alisha Luna, **Rajni** , “Hyperthermia, An Initiative to treat Cancer and Tumour: A Review” International Journal of Engineering Trends and Technology (IJETT) – Vol. 9, No. 11, pp. 528-531, March 2014. **(ISSN No. 2231-5381) (DOI:10.14445/22315381/IJETT-V9P301)**
15. Inderbir Kaur, **Rajni**, “Analysis of Denoising of Image with different wavelets”, International Journal of Engineering Trends and Technology (IJETT) – Vol. 9, Issue no. 13, pp.658-661, March 2014. **(ISSN No. 2231-5381)(DOI:10.14445/22315381/IJETT-V9P324)**
16. Simarpreet Kaur, **Rajni**, Anupma Marwaha, “Fractal Antennas: A Novel Miniaturization Technique for Next Generation Networks”, International Journal of Engineering Trends and Technology (IJETT) – Vol. 9 Number 15, pp. 744-748, March 2014. **(ISSN No. 2231-5381) (DOI**:**10.14445/22315381/IJETT-V9P341**)
17. Inderbir Kaur, **Rajni**, “Denoising of ECG Signal using Filters And Wavelet Transform”, International Journal of Electrical and Electronics Engineering- ATHAL Press and Media (IJEEE-APM), Vol. 1, Spl. Issue 2((ICRTEDC), pp. 28-31, May 2014 (**e-ISSN: 1694-2310)**
18. Anutam, **Rajni**, “Performance Analysis of Image Denoising with Wavelet Thresholding Methods for different levels of decomposition,” International Journal of Multimedia & Its Applications (IJMA) Vol. 6, No. 3, pp. 35-46, June 2014 **(e-ISSN: 0975-5578) (DOI: 10.5121/ijma.2014.6303)**
19. Ranjit Singh Momi, **Rajni,** “A Novel Triple-Band Microstrip-Fed Meandered Monopole antenna with Defected Ground Structure,”IOSR Journal of Electronics and Communication Engineering (IOSR-JECE), pp. 21-26, Volume 9, Issue 4, Ver. 1, Jul - Aug. 2014 **(e-ISSN: 2278-2834)(Impact Factor :1.586)**
20. **Alisha, Rajni,** Anupma Marwaha **“**Hyperthermia Applicator for Electromagnetic interaction with Human tissue at 434 MHz*”,* IOSR Journal of Electrical and Electronics Engineering (IOSR-JEEE), e-ISSN: 2278-1676, Volume 9, Issue 4, Ver. 1, pp. 32-36 Jul – Aug. 2014, (Impact Factor :**1.452)**

**International Conferences:**

1. Sonika Jindal, **Rajni**, Richa Jindal, “Nanotechnology: A Bliss or Curse”, International Conference on Research in Management & Technology on 23rd-24th March, 2007 at Gyan Jyoti Institute of Management &Technology, Mohali, pp. 526-531. (\***Published as a book chapter in “Research in Management and Technology”(ISBN : 978-81-8450-082-0))**
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**Riya**

1. Riya, Chakshu Goel, “Integration of Wireless Sensor Networks into Internet of Things with HOOSC Scheme”, International Journal of Advances in Science and Technology, vol 2 Issue 2, pp. 37-41, June 2014.

**Parasmani PUBLICATIONS**

* *Parasmani, Shri Gopal Modani, "FPGA -- Based Advanced Traffic Light Controller Simulation”, International Journal of Scientific & Engineering Research, Volume 4, Issue 9, September-2013, ISSN 2229-5518*
* *Parasmani, Shri Gopal Modani, "FPGA -- Based Traffic Light Controller Simulation”, National Conference on Communication Systems and VLSI Design (NCSVD), July 24 - 25, 2013.*
* *Parasmani, “Performance of Triple Junction Solar Cells”, National Symposium on Microelectronics and Systems, March 17-18, 2012*

Department of Mechanical Engg.

**Departmentof Mechanical Engg.**

**List of Research Publications: Journals**

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| S.No. | | Publication | | Year | International  /National | | ISSN No. | | Impact Factor |
| 1. | | Bhatti, R.S. “Total Productive Maintenance (TPM): A Proposed Model for Indian SMEs, International Journal of Mechanical and Production Engineering Research and Development (IJMPERD), Vol. 4(1), pp 1-22. | | 2013-14 | International | | 2249-6890  Trans Steller | | 5.34 |
| 2 | | Asati, A.K., “Simplified Mathematical Modeling of Dehumidifier and Regenerator of Liquid Desiccant System” International Journal of Current Engineering & Technology, Vol.4 (2), pp 557-563. | | 2013-14 | International | | 2347-5161  Inpressco | | 4.55 |
| 3 | | Singh Tejeet, “Effect of Anisotropy on Steady State Creep in Functionally Graded Cylinder” Composite Structures. Vol. 93 (2), pp. 747-758. | | 2011-12 | International | | 0263-8283  Elsevier | | 3.44 |
| 4 | | Sidhu, T.S., “Performance of cold spray coating on Fe-based super alloy Na2SO4-NaCl Environment at 900oC” Surface and Coating Technology, Vol. 240, pp 456-463. | | 2013-14 | International | | 0257-8972  Elsevier | | 2.45 |
| 5 | | Sidhu, T.S., “Multi response optimization of low pressure cold sprayed coatings through Taguchi method and utility concept” International J of Advanced Manufacturing Technology, Vol. 64, pp 903-914. | | 2012-13 | International | | 0268-3768  Springer | | 1.78 |
| 6 | | Sidhu, T.S., “Chlorine based hot corrosion study of cold sprayed NiCrAlY Coating” Surface Engineering, Vol.30, No.6, pp 422. | | 2013-14 | International | | 0267-0844  Maney Publishing | | 1.51 |
| 7 | | Sidhu, T.S., “Performance of cold spray coating in Industrial medical waste incinerator” Surface Engineering, Vol.30, No.5, pp 352. | | 2013-14 | International | | 0267-0844  Maney Publishing | | 1.51 |
| 8 | | Sidhu, T.S., “Behavior of cold spray coating in real incinerator environment” Materials and Manufacturing Processes, DOI 10.1080/10426914.2014.912319. | | 2013-14 | International | | 1042-6914  Taylor & Francis | | 1.39 |
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| 10 | | Sidhu, T.S. “Study of coating thickness of cold spray process using Taguchi Methods” Materials and Manufacturing Processes, Vol. 27, pp 185-192. | | 2012-13 | International | | 1042-6914 Taylor & Francis | | 1.39 |
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| 12 | | Singh, Tejeet, “Effect of Residual Stress on Creep Behavior of Functionally Graded 6061Al-SiCw Cylinder Subjected to Internal Pressure” Mechanics of Advanced Materials and Structures. Vol. 21, pp. 384-392. | | 2013-14 | International | | 1537-6494  Taylor & Francis | | 0.98 |
| 13 | | Singh, Tejeet, “Steady state creep analysis of functionally graded rotating cylinder”, Strain: An international journal of experimental mechanics, Vol. 49(6), pp.457-466. | | 2012-13 | International | | 1475-1305  Wiley Publishing | | 0.91 |
| 14 | | Sidhu, T.S. “Cold spray technology: Future of coating deposition processes” Frattura Ed Integrita Strutturale, Vol. 22, pp 69-84. | | 2012-13 | International | | 1971-8993 | | 0.73 |
| 15 | | Singh Tejeet, “Steady State Creep Analysis of a Functionally Graded Thick Cylinder subjected to Internal Pressure and Thermal Gradient”, International Journal of Materials Research. Vol. 103, pp. 1042-1051*.* | | 2012-13 | International | | 1862-5282  Hanser | | 0.69 |
| 16 | | Sidhu, T.S., “Development of cold spray from innovation to emerging future coating technology”. Journal of Brazialian society of Mechanical Sciences and Engg. Vol. 35 No.3, pp231-245. | | 2013-14 | International | | 1678-5878 Springer | | 0.239 |
| 17 | | Sidhu, T.S., “Hot corrosion in Biomedical waste incinerator and cold spray coating A Review” I manager’s Journal on Material Science, Vol.1, No.2. | | 2013-14 | International | | 2347-2235 | | 0.21 |
| 18 | | Sidhu, T.S., “ Characterization of NiCrAlY coating on Ni and Fe- based super alloys by cold spray process” I manager’s Journal on Material Science, Vol.1, No.2. | | 2013-14 | International | | 2347-2235 | | 0.21 |
| 19 | | Kushwaha, M.K. “A comparative study of different electrolytes for obtaining thick and well- ordered nano-porous anodic aluminium oxide films” Procedia Material Science. | | 2013-14 | International | | 2211-8128  Elsevier | | -- |
| 20 | | Singh, Tejeet, “Modeling Steady State Creep Behavior of Functionally Graded Thick Cylinder in the Presence of Residual Stress”, Procedia Engineering, Vol. 55, pp. 760-767. | | 2012-13 | International | | 1877-7058  Elsevier | | -- |
| 21 | | Sidhu, T.S., “Study of the behavior of Ni based superalloys in the actual waste incinerator plant under cyclic conditions for 1000h at 900o C, CORROSION. | | 2013-14 | International | | 0010-9312  NACE | | -- |
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| 23 | | Singh, Manjinder, “I S Modeling approach for analyzing barriers in TPM implementation”, International J of Systems of Systems Engg, Vol. 16 (4), pp 433. | | 2013-14 | International | | 1748-068X | | -- |
| 24 | | Singh, Sukhjinder, “Computer aided design library of gating system for a die casting die”, International Journal of Applied Studies Vol.1. | | 2013-14 | International | | 2348-1560 | | -- |
| 25 | | Singh, Sukhjinder “Exploring manufacturing competencies of a Tractor manufacturing unit”, International Journal of Applied Studies Vol.1. | | 2013-14 | International | | 2348-1560 | | -- |
| 26 | | Sidhu, T.S., “ Characterization of cold sprayed NiCrAlY coating on Fe- based super alloys and hot corrosion behaviour in Na2SO4-NaCl environment” I manager’s Journal on Future Engg and Technology, Vol. 9, No.1. | | 2013-14 | International | | 2230-7184 | | -- |
| 27 | | Kushwaha, M.K. “Industry responsive metallurgical engineering education quality through TQM” Journal of Materials and Metallurgical engineering Vol. 4(1), pp. 13-22. | | 2013-14 | International | | 2231-3818 | | -- |
| 28 | | Grover, N.K. “Recent advancement in electric discharge machining” International Journal of Modern Engineering Research Vol 2. pp. 3815-3821. | | 2012-13 | International | | 2249-6645 | | -- |
| 29 | | Grover, N.K., “Wear behavior of G1250 grade of gray cast iron coated by WC-12CO and satellite-6 coatings” International journal of modern engineering research Vol. 2(5), pp. 3232-3236. | | 2012-13 | International | | 2249-6645 | | -- |
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| 34 | | Singh, R.P., “Parametric Effect on Mechanical Properties in Submerged ARC welding Process-A Review” International Journal of Engg Science & Technology, Vol.4 (2), pp 783-793. | | 2012-13 | International | | 0975-5462 | | -- |
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| 36 | | Goyal, Vaishali, “Optimization of resistance welding parameter for desired weld quality using full factorial statistical technique” International journal of civil mechanical engineering Vol.2 (1) pp.31-39. | | 2012-13 | International | | 2250-3218 | | -- |
| 37 | | Goyal, Vaishali, Research paper on “Health hazards of various hazardous wastes” Research Analysis and Evaluation, Vol27 (3), pp 33. | | 2011-12 | International | | 0975-3486 | | -- |
| 38 | | Sidhu, T.S. “Cold sprayed Copper coating on Brass: Corrosion studies in simulated marine and industrial environment” Int J of Mechanic Systems Engg, Vol.2 No.1 pp 1-14. | | 2012-13 | International | | 2225-7403 | | -- |
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| 42 | | Parshad,Jwala, “Wear behavior of G1250 grade of cast iron coated by WC-12CO and satellite-6 coatings”, IJMER Vol.2 | | 2011-12 | International | | 2249-6645 | | -- |
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| 45 | | Singh, Manjinder, “Measuring Manufacturing performance with the implementation of TPM” in IJPQM, Vol9 (4), pp 456. | | 2011-12 | International | | 1746-6482 | | -- |
| 46 | | Bhatti, R.S., “Implementation of TPM for Enhancing OEE of Small Scale Industry”, International Journal of IT Engineering & Applied Sciences Research (IJITEASR), 1(1). | | 2011-12 | International | | 2319-4413 | | -- |
| 47 | | Grover, N.K. “Computational studies on droplet evaporation at high ambient pressures and temperatures” International Journal of Computer Sc and Applications. | | 2011-12 | International | | 0974-5742 | | -- |
| 48 | | Sidhu ,T. S. “Scarcity of Energy and Waste-to-Energy (WTE) plant: A Review”, I-manager’s Journal on Mechanical Engineering, Vol. 1, No. 1, pp. 1-15. | | 2011-12 | National | | 2230-9055 | | -- |
| 49 | | Sidhu, T. S., “Low- pressure cold sprayed coatings process parameter optimization using Taguchi multi-response”, International Journal of Surface Engineering and Materials Technology (IJSEM), Vol. 1, No. 1, pp. 5-11. | | 2011-12 | International | | 2249-7250 | | -- |
| 50 | | Sidhu, T. S., “Effect of nozzle geometry on exit velocity, temperature and pressure for cold spray process”, International Journal of Materials Science and Engineering (IJMSE), Vol. 2, No. 1-2, pp. 65-72. | | 2011-12 | International | | 0976-6243 | | -- |
| 51 | | Kushwaha, M K et al, “carbon nano tube/nano fibre embedded nano porous modified aluminium oxide surface and its tribological properties” | | 2011-12 | international | | 1533-4880 | | 1.33 |
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| 53 | | Asati, A.K., “Drift and Wetting Characteristics of Falling Film Absorber and Regenerator”, ACRECONF 2003 International Conference Proceedings organized by ISHRAE in Association with ASHRAE, Pages 16-25 | | 2003 | international | |  | |  |
| 54 | | Asati, A.K., “Desiccant Augmented Evaporative Cooling: Status and Trends”, ACRECONF 2001 International Conference Proceedings organized by ISHRAE in Association with ASHRAE, Pages 112-122 | | 2001 | International | |  | |  |
| 55 | | Grover, N.K., “Numerical Studies on Droplet Evaporation at High Ambient Pressures & Temperatures”,. International Journal of Advances in Thermal sciences and Engineering PP133-137 | |  | International | | ISSN: 0976-6820 | | Peer Reviewed |
| 56 | | Grover, N.K., “Evaporation of a Hydrocarbon Fuel in a High Pressure Environment”, International Journal of Industrial Engineering and Technology PP: 335-342 | |  | International | | ISSN:0974-3146 | | Peer Reviewed |
| 57 | | Grover, N.K., “Structural Properties of Anode Composites Precursor of a Solid Oxide Fuel Cell Prepared Via Combustion Synthesis Route”, Asian Journal of Engineering and Applied Technology | |  | international | | ISSN:2249-068X | | Peer Reviewed |
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| 59 | | Kumar, Rakesh, “**A framework for simultaneous recognition of part families and operation groups for driving a Reconfigurable Manufacturing System**”, Advances in Production Engineering & Management Journal, Volume 5, Issue 1, Feb. 2010.  Co-authors: Jain P.K., Mehta N.K. | |  | International | |  | |  |
| 60 | | Kumar, Rakesh, "**A Dynamic RMS framework for a highly dynamic environment of a subcontracting manufacturing enterprise**", Journal of Mechatronics and Intelligent Manufacturing, Volume 1, Issue ¾.  Co-authors: Jain P.K., Mehta N.K. | |  | International | |  | |  |
| **List of Research Publications: Conferences** | | | | | | | | |
| S.No. | | Publication | | | Year | | International  /National | |
| 1. | | Singh, Tejeet, “Steady State Creep Behavior of Functionally Graded Thick Cylinder”, Presented at International Conference on Aerospace, Mechanical, Automotive and Materials Engineering, Melbourne, Victoria, Australia, December 16–17. | | | 2013-14 | | International | |
| 2 | | Bhatti, R.S., “Implementation of Autonomous Maintenance for the Improvement of OEE of machines in SMEs – In Context of Indian Enterprises”, Proceedings of International Conference on Smart Technologies for Mechanical Engineering, Paper no. 17, (ISBN: 978-93-83083-35-0), Oct. 25-26, 2013, pp. 537-544, DTU Delhi. | | | 2013-14 | | International | |
| 3 | | Sidhu, T.S., “Characterization of Cold Sprayed Copper Coatings on ASTM B 435 Alloy”, proceedings of AES-ATEMA’ 2013 14th International Conference on Advances and trends in Engineering Materials and their Applications, Toronto, Canada, 05-09 August 2013, pp 171-182. | | | 2013-14 | | International | |
| 4 | | Sidhu, T.S., “Optimization of Corrosion Test And Wear Test on Alsic/ MMC Using Taguchi Method”, Proceedings Of AES-ATEMA’ 2013 1st International Conference on Reliability and safety of Engg systems and structures, Vancouver, Canada, 12-16 August 2013, pp 49-55. | | | 2013-14 | | International | |
| 5 | | Nripjit, “Analysis of 384.1 Al Alloys Based Composites Using MgO Doping” Program Schedule of ISTE Delhi Section Convention, Sep-5-6, 2013, DTU, Delhi. | | | 2013-14 | | National | |
| 6 | | Grover, N.K., “Simulation Of Evaporation of a Fuel Droplet In High Pressure Environment” International Conference on recent advanced in mechanical engineering and interdisciplinary developments ISBN 978-93-80609-17-1. | | | 2013-14 | | International | |
| 7 | | Grover, N.K. “Surface Modification Of EDM Process Using Cryogenic Treatment” National conference on latest developments in mechanical manufacturing and quality control. GZSCET, Bathinda, ISBN: 978-93-5156-187-3 | | | 2013-14 | | National | |
| 8 | | Kushwaha, M.K. “Growth of Carbon Nanostructure in Anodic Alumina Oxide Templates Based on Highly Pure & Commercial Pure Alumina Substrate” presented in NWIET Dhudike. | | | 2013-14 | | National | |
| 9 | | Kushwaha, M. K., “A Review on Studies of Mechanical Properties of Anodized Alumina Oxide”, presented in NWIET Dhudike. | | | 2013-14 | | National | |
| 10 | | Kumar Rakesh, “Surface modification of EDM process using cryogenic treatment” National conference on latest developments in mechanical manufacturing and quality control. GZSCET, Bathinda, ISBN: 978-93-5156-187-3. | | | 2013-14 | | National | |
| 11 | | Bhatti, R.S. “Productivity Improvement through 5S Implementation in Indian Manufacturing Industries”, Proceedings of International Conference on Research and Innovations in Mechanical Engineering (ICRIME-2013), (Paper ID-ICRIME 2013-703), Oct. 24-26, 2013, SOUVENIR pp. no. 50, GNDEC Ludhiana. | | | 2013-14 | | International | |
| 12 | | Singh, Tejeet, “Processing Techniques of Functionally Graded Materials: A Review”, International conference on Advancement in Engineering and Technology at BGCIET, Sangrur from 21.02.2014 to 22.02.2014. | | | 2013-14 | | International | |
| 13 | | Sidhu, T.S., “A review of thermal spraying processes used for bioceramic coatings”, 3rd International Conference on Production and Industrial Engg 2013, NIT, Jallandhar. | | | 2013-14 | | International | |
| 14 | | Nripjit “Simulation of temperature distribution for chips during turning operation using 2D-DEFORM” NABSET, March1-2, 2013, Guwahati | | | 2012-13 | | National | |
| 15 | | Singh, Tejeet, “Modeling Steady State Creep Behavior of Functionally Graded Thick Cylinder in the Presence of Residual Stress”, Presented at 6th International Conference on Creep, Fatigue and Creep-Fatigue Interaction, Mamallapuram, India, January 22–25, pp 1055-1061. | | | 2012-13 | | International | |
| 16 | | Grover, N.K. “Review paper on enhancing the wear resistance of grey cast iron using D-spray process.” ICARME 2012, Trivandrum. | | | 2012-13 | | International | |
| 17 | | Grover, N.K. “Structural properties of anode composites precursor of a solid oxide fuel cell prepared via combustion synthesis route”. International Conference on Advancements and Futuristic Trends on Mechanical and Materials Engg., PTU Jallandhar. | | | 2012-13 | | International | |
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| 23 | | Singh, Manjinder, “Evaluating the performance effectiveness of TPM & other quality improvement strategies”. CPIE2013, NIT Jallandhar. | | | 2012-13 | | International | |
| 24 | | Goyal, Vaishai, “Themo-chemical characterization of agro-residues for its effective utilization as a source of renewable energy”. Int Con on Advance in Renewable Energy. | | | 2012-13 | | International | |
| 25 | | Goyal, Vaishali, “Hazardous wastes-detrimental to the environment.” GRDIET, Bathinda. ISBN:978-93-81583-16-6. | | | 2012-13 | | National | |
| 26 | | Bhatti, R. S. Work-life balance”, Proc. of 3rd National Conference of "Trends and Issues in Product and Brand Management", Baba Farid College Of Management & Technology" Bathinda March 20-21, ISBN 978-93-5104-993-7. | | | 2012-13 | | National | |
| 27 | | Bhatti, R.S., “ Role of branding in developing Green Products Market: Challenges and Benefits" Proc of 3rd National Conference on "Trends and Issues in Product and Brand Management", Baba Farid College Of Management & Technology" Bathinda, March 20-21, 2013, ISBN978-93-5104-993-7. | | | 2012-13 | | National | |
| 28 | | Singh, Tejeet, “Steady state creep in rotating thick-walled composite cylinders”, International conference on Advancements and Futuristic Trends in Mechanical and Materials engineering, PTU Kapurthalla, from October 3-6, pp. 246-252. | | | 2012-13 | | International | |
| 29 | | Singh, Tejeet, “Risk Husk reinforced Composites: A review”, International conference on research and innovations in mechanical engineering, GNDEC, Ludhiana from October, 24-26. | | | 2012-13 | | International | |
| 30 | | Singh, Tejeet, “Functionally Graded Materials: A Review”, International conference on Advancement in Engineering and Technology at BGCIET, Sangrur from 12.10.2012 to 13.10.2012. | | | 2012-13 | | International | |
| 31 | | Sidhu, T.S., “An overview of the effect of hot corrosion in waste to energy plant environment” Int. conference on Advancements and futuristic trends in Mechanical and Materials Engg. October 5-7, 2012, PTU, Jallandhar. | | | 2012-13 | | International | |
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| 33 | | Bhatti, R.S., Factoring Terror into the Selection of 3PL Providers In Global Supply Chains: A Robust Design, 5th Knowledge Globalization Conference (15th To 17th October, 2011) Suffolk University, Boston (Massachusetts), USA. | | | 2011-12 | | International | |
| 34 | | Bhatti, R. S. Total Productive Maintenance (TPM) is An Effective Tool for Minimization of Downtime of Machine, Production Losses And Scrap – In Context Of Indian Industries, Proceedings of International Conference on Emerging Trends in Engineering and Technology, April 6-7, 2012, (Paper no. ME-120), (ISBN: 978-93-8137804-5) Teeranthkar Mahaveer University, Moradabad (U.P). | | | 2011-12 | | International | |
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| 36 | | Sidhu, T.S., “Characterization of cold sprayed copper coatings on ASTM B 36 alloy”, proceedings of AES-ATEMA’ 2011 Ninth International Conference on Advances and trends in Engineering Materials and their Applications, Montreal, Canada, 01-05 August 2011, pp 227-238. | | | 2011-12 | | International | |
| 37 | | Sidhu, T.S., “An overview of hot corrosion in waste to energy boiler environment and its remedies”, International conference on Material science and technology, conference and exhibition, MS and T’11, 2011; 2: 1125-1134, Conf. code: 88218, ISBN: 9781618392619, MST, Columbus, Ohio, USA. | | | 2011-12 | | International | |
| 38 | | Nripjit, “Properties of (A384.1)1-x [(SiC)p] x Composites by Keeping Particle Size at 0.220 µm” during July 6 - 8, 2011, London, U.K. | | | 2011-12 | | International | |
| 39 | | Sidhu, T.S., “Introduction to cold gas dynamic thermal spray coating technique and its prospective use for electro-technical applications”, International Conference on Advances in Mechanical Engineering (ICAME 2011), SVNIT, Surat, 6-8 June, 2011. | | | 2011-12 | | International | |
| 40 | | Grover, N.K. “Calculation of thermo physical properties of N-heptane & nitrogen mixture using vapour liquid equilibrium” in National conference on global trends in Mechanical Engineering. | | | 2011-12 | | National | |
| 41 | | Kumar, Rakesh, “The status of manufacturing sector in India: A survey” International conference on Advances in Materials and Manufacturing Technology, October 3, 2011, School of ME, Chitkara University, Rajpura. | | | 2011-12 | | International | |
| 42 | | Kumar, Rakesh “Evolution of manufacturing systems: An overview”2nd international conference on Advances in materials and Manufacturing technology, October 6th, 2012, School of ME, Chitkara University, Rajpura. | | | 2011-12 | | International | |
| 43 | | Singh, Tejeet, “Role of Teachers in Moral Development of Engineering Students”, 1st National Conference on Moral and Ethical Values for Professionals at IET Bhaddal, India, 15-16 April. | | | 2011-12 | | National | |
| 44 | | Sidhu, T.S., “Effect of nozzle geometry on exit velocity, temperature and pressure for cold spray process”, National Conference on Advancements and Futuristic Trends in Mechanical and Materials Engineering (AFTMME’11), 6-8 October 2011, Punjab Technical University, Kapurthala. | | | 2011-12 | | National | |
| 45 | | Sidhu, T.S., “Low- pressure cold sprayed coatings process parameter optimization using Taguchi multi-response”, National Conference on Advancements and Futuristic Trends in Mechanical and Materials Engineering (AFTMME’11), 6-8 October 2011, Punjab Technical University, Kapurthala. | | | 2011-12 | | National | |
| 46 | | Parshad Jwala, “Improving slurry erosion wear resistance of hydro-turbine steels using detonation gun sprayed coatings- a review.” | | | 2014-15 | | National | |
| 47 | | Parshad Jwala, “Effectiveness of Al2O3-13TiO2& 20NiCr coatings on given cast iron for improving wear resistance”. | | | 2014-15 | | National | |
| 48 | | R P Singh, “High Temperature corrosion Resistance of HVOF  sprayed Ni-Al coating on Ni- based superalloys” | | | 2007 | | National | |
| 49 | | Goyal Vaishali, “Review paper on hazardous waste management”. | | | 2011-12 | | National | |
| 50 | | Goyal Vaishali, “Toxic wastes-sources, health hazards and need of managing”. | | | 2011-12 | | National | |
| 51 | | Goyal Vaishali, “Hospital waste-management and handling”. | | | 2011-12 | | National | |
| 52 | | Grover, N.K. “Hydrocarbon Liquid Droplet Evaporation and Ignition Studies at High Pressure”, 84 | | |  | | International | |
| 53 | | Grover, N.K. “Various Research trends in Electric Discharge Machining”, PP 348-355 | | |  | | National | |
| 54 | | Grover, N.K. “Detonation Sprayed Wear Resistance Coatings-A Review”. PP 111-116 | | |  | | National | |
| 55 | | Grover, N.K. “Comparison of Wear Properties of WC– 12CO and Stellite-6 on Grey Cast Irons Deposited by Detonation Spray Process”. PP 31-36 | | |  | | National | |
| 56 | | Kumar, Rakesh, “The Status of Manufacturing Sector in India: Parts I and II”, National Conference on Advances in Manufacturing Systems: Technology, Materials and Management, September 05-06, 2014, Department of Mechanical Engineering, SBS State Technical Campus, Ferozepur  Co-authors: ShakunPreet Kaur, Jatinder Kumar and RohitMonga | | |  | | National | |
| 57 | | Kumar, Rakesh, “Enhancement of EDM Surface Characteristics using Carbon Nano Tubes as dielectric- A Review ”, National Conference on Advances in Manufacturing Systems: Technology, Materials and Management, September 05-06, 2014, Department of Mechanical Engineering, SBS State Technical Campus, Ferozepur  Co-authors: Amandeep Singh and Neel Kanth Grover | | |  | | National | |
| 58 | | Kumar, Rakesh, “A critical review of Electrochemical Machining”, National Conference on Advances in Manufacturing Systems: Technology, Materials and Management, September 05-06, 2014, Department of Mechanical Engineering, SBS State Technical Campus, Ferozepur  Co-authors: J.P. Misra and UmedKhod | | |  | | National | |
| 59 | | Kumar, Rakesh, “Simulation of Evaporation of Fuel Droplet in high pressure environment”, International conference on Recent Advances in Mechanical Engineering and Interdisciplinary Developments, March 07-08, 2014, Department of Mechanical Engineering, PomjeslyColleger of Engineering, Nagercoil, Tamilnadu, India.  Co-authors: Neelkanth Grover and Rajiv Arora | | |  | | International | |
| 60 | | Kumar, Rakesh, “The Status of Manufacturing Sector in India: A Survey”, 2nd International Conference on Advances in Materials and Manufacturing Technology, October 06, 2012, School of Mechanical Engineering, Chitkara University, Rajpura.  Co-authors: ShakunPreet Kaur and Jatinder Kumar | | |  | | International | |
| 61 | | Kumar, Rakesh, “Various Research Trends in Electric Discharge Machining”, National Conference on Advances in Manufacturing Technology, 15-16 Mar, 2012, NITTTR Chandigarh.  Co-authors: Amanpreet Singh, and Neelkanth Grover | | |  | | National | |
| 62 | | Kumar, Rakesh, “Evolution of Manufacturing Systems: An Overview”, 1st International Conference on Advances in Materials and Manufacturing Technology, October 03, 2011, School of Mechanical Engineering, Chitkara University, Rajpura.  Co-authors: ShakunPreet Kaur and Jatinder Kumar | | |  | | International | |
| 63 | | Kumar, Rakesh,“Manufacturing Planning for a Reconfigurable Manufacturing System: A new approach”,International Conference on Emerging Trends in Mechanical Engineering (ICETME-2011), February 24-26, 2011, Department of Mechanical Engineering, Thapar University Patiala.  Co-Authors: Jain P.K., Mehta N.K. | | |  | | International | |
| 64 | | Kumar, Rakesh,“**Cleaner Production Management: Research Issues**”, UGC International Conference on India in Emerging Order – A Potential Market for World, February 25-26, 2011, Department of Economics, DAVC, Malout.  Co-Authors: Preety Sharma, Sangeeta Arora | | |  | | International | |
| 65 | | Kumar, Rakesh, “**Introduction to Social Media: A new marketing platform**”, UGC International Conference on India in Emerging Order – A Potential Market for World, February 25-26, 2011, Department of Economics, DAVC, Malout.  Co-Authors: Preety Sharma, Raminder Pal Singh | | |  | | International | |
| 66 | | Kumar, Rakesh, **Six Sigma: A continuous process improvement technique**”, UGC International Conference on India in Emerging Order – A Potential Market for World, February 25-26, 2011, Department of Economics, DAVC, Malout. Co-Author: GazalPreetArneja. | | |  | | International | |
| 67 | | Kumar, Rakesh, “Soft Computing for Management Research: A Glance”, UGC International Conference on India in Emerging Order – A Potential Market for World, February 25-26, 2011, Department of Economics, DAVC, Malout.  Co-Author: GazalPreetArneja. | | |  | | International | |
| 68 | | Kumar, Rakesh, “**A proposal for a new manufacturing strategy based on Reconfigurable manufacturing system paradigm**”, Proceedings of 3rd International and 24thAll India Manufacturing Technology, Design and Research (AIMTDR-2010) Conference, Dec 13-15, 2010, Andhara University, Andhara Pradesh, India.  Co-Authors:  Uma Mahesh Kumar K., Jain P.K. | | |  | | National | |
| 69 | | Kumar, Rakesh, “**Reconfiguration planning for a manufacturing system with movable machines**”, Proceedings of International Conference on Advances in Mechanical Engineering (ICAME-2010), Jan 4-6, 2010, SVNIT, Surat, Gujrat, India.  Co-Authors: Jain P.K., Jain Pooja | | |  | | International | |
| 70 | | Kumar, Rakesh, "**An Adaptation of Hierarchical Clustering for Simultaneous Recognition of RMS Part Families and Operation Groups Considering Alternative Operation sequences**", Symposium on Group Technology and Cellular Manufacturing (GT/CM 2009) incorporating The 5th International Conference on Intelligent Manufacturing and Logistics Systems (IML 2009), Feb. 16-18, 2009, Waseda University, Kitakyushu, Japan.  Co-Authors: Jain P.K., Mehta N.K. | | |  | | International | |
| 71 | | Kumar, Rakesh, "**Reconfigurable Manufacturing Paradigm: A Bird's Eye View**", National Conference on Robotics and Intelligent Manufacturing Process (RIMP-2009), Jan., 5-6, 2009, Centre for Intelligent Machines and Robotics, Corporate R&D Division, BHEL, Vikasnagar, Hyderabad, India.  Co-Authors: Jain P.K., Uma M.K. | | |  | | National | |
| 72 | | Kumar, Rakesh, "**A Proposal for a Reconfigurable Subcontracting Manufacturing Enterprise and its Manufacturing Planning**", XII Annual International Conference of Society of Operations Management (AICSOM 2008), Dec. 19-21, 2008, Indian Institute of Technology, Kanpur, India.  Co-Authors: Jain P.K., Mehta N.K. | | |  | | International | |
| 73 | | Kumar, Rakesh, "**A Dynamic RMS framework for a highly dynamic environment of a subcontracting manufacturing enterprise**", International Conference on Advances in Mechanical engineering (AME 2008), Dec. 15-17, 2008, SVNIT, Surat, India.  Co-Authors: Jain P.K., Mehta N.K. | | |  | | International | |
| 74 | | Kumar, Rakesh, “**A systematic approach for selection and sequencing of part families in Reconfigurable Manufacturing Systems**”, 2nd International & 23rd All India Manufacturing Technology Design and Research Conference (AIMTDR 2008), Dec. 15-17, 2008, IIT, Madras, Chennai, India.  Co-Authors: Jain P.K., Mehta N.K., Kumar M. | | |  | | International | |
| 75 | | Kumar, Rakesh, “**Manufacturing cycle planning for a Reconfigurable Manufacturing System: A Genetic Algorithm based approach**”, 2008 IEEE International Conference on Industrial Engineering and Engineering Management (IEEM 2008), 8-11 Dec., 2008, Singapore.  Co-Authors: Jain P.K., Mehta N.K. | | |  | | International | |
| 76 | | Kumar, Rakesh, “**Manufacturing of 'Fast Movimg Industrial Goods' in Reconfigurable Manufacturing Systems: An Overview**”, 3rd National Conference of Recent Developments in Mechanical Engineering (NVME 2008), Nov 14-15, 2008, Thapar University, Patiala, India.  Co-Authors: Jain P.K., Uma M.K. | | |  | | National | |
| 77 | | Kumar, Rakesh, "**Various Manufacturing System Paradigms: A Bird’s Eye View**", National Conference on Recent Developments in Mechanical Engineering (MANTHAN 2008), Nov. 8, 2008, GRKIST, Jabalpur, India.  Co-Authors: Jain P.K., Uma M.K. | | |  | | National | |
| 78 | | Kumar, Rakesh, “**An approach for simultaneous part families recognition and operation sequence selection for Reconfigurable Manufacturing systems**”, ISPE 24th International Conference on CAD/CAM, Robotics & Factories of the Future (CARS & FOF 2008), 29-31July 2008, Nihon University, Koriyama, Japan.  Co-Authors: Jain P.K., Mehta N.K. | | |  | | International | |
| 79 | | Kumar, Rakesh, “**A review of evolution of ‘Reconfigurable Manufacturing System’ paradigm on the landscape of business globalization**”, 5th International Conference on Business Challenges & Strategies in Emerging Global Scenario (ICBCS 2008), 30 May 2008, PCET, Ludhiana, India.  Co-Authors: Jain P.K., Mehta N.K. | | |  | | International | |
| 80 | | Kumar, Rakesh, “**’Reconfigurable Manufacturing System’- a manufacturing paradigm to meet global business challenges**”, 5th International Conference on Business Challenges & Strategies in Emerging Global Scenario (ICBCS 2008), 30 May 2008, PCET, Ludhiana, India.  Co-Authors: Jain P.K., Mehta N.K., Kumar M. | | |  | | International | |
| 81 | | Kumar, Rakesh, “**Reconfigurable Manufacturing Systems-An Emerging Manufacturing Paradigm**”, Global Conference on Production and Industrial Engineering (CPIE 2007), 22-24March, 2007, DIE, NIT, Jalandhar, India.  Co-Author: Jain P.K. | | |  | | International | |
| 82 | | Kumar, Rakesh, "**Recent Progress in Interactive Droplet Vaporization and Combustion",** National Conference on Recent Developments in Mechanical Engineering, 31Oct-01Nov., 2003, Department of Mechanical Engineering, Thapar Institute of Technology, Patiala, India.  Co-Author: Grover N.K. | | |  | | National | |
| 83 | | Kumar, Rakesh, "**Cleaner production-A Potential Tool to Waste Minimization**", National Seminar on Science and Technology in Present Perspective, 26Oct., 2002, S.B.S. College of Engineering and Technology, Ferozepur, India.  Co-Aothors: Saluja K.K., Singh S.B. | | |  | | National | |
| 84 | | Kumar, Rakesh, "**Cleaner Production - Issues and Recommendations**", 17th National Convention of Environment  Engineers, ENVI-2001, 23-25 November, 2001, The Institution of Engineers Hall, Vellayambalam, Trivendaram, Kerala, India.  Co-Aothor: Singh S.B. | | |  | | National | |

**Department of Computer Sc. & Engg.**

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| **Publications By Faculty Members** | | | | | | | | | | | | |
| **Sr. No.** | **Name of Faculty** | **Number of papers published in peer reviewed journal** | **No of publications listed in International Database** | **Monographs** | **Chapter in Books** | **Books Edited** | **Books with ISBN/ISSN numbers** | **Citation Index** | **SNIP** | **SJR** | **Impact Factor** | **h-index** |
| 1 | Dr. KrishanSaluja | 48 | 90 | Nil |  | 4 | 3 | 315 |  |  | 14 paper | 10 |
| 2 | Dr. Monika Sachdeva | 24 | 48 | Nil | Nil | Nil | Nil | 175 |  |  | 6 paper | 8 |
| 3 | Ms. Daljeet Kaur | 1 | 5 | Nil | Nil | Nil | Nil |  |  |  |  |  |
| 4 | Mr. Japinder Singh |  | 2 | Nil | Nil | Nil | Nil |  |  |  |  |  |
| 5 | Mr.Navtej Singh Ghuman | 1 | 5 | Nil | Nil | Nil | Nil |  |  |  |  |  |
| 6 | Ms. Sonika Jindal | 20 |  | Nil | Nil | Nil | Nil | 40 |  |  | 13 paper | 3 |
| 7 | Mr.SunnyBehal | 12 | 26 | Nil | Nil | Nil | Nil | 35 |  |  | 7 papers | 3 |
| 8 | Mr. PawanLuthra | 5 | 8 | Nil | Nil | Nil | Nil |  |  |  |  |  |
| 9 | Mr Vishal Arora | 7 | 11 | Nil | Nil | Nil | Nil |  |  |  |  |  |
| 10 | Mr. Sarabjeet Singh | 1 | 5 | Nil | 4 | Nil | Nil |  |  |  |  |  |
| 11 | Mr. Gurjeet Singh | 1 | 1 | Nil | Nil | Nil | Nil |  |  |  |  |  |
| 12 | Mr. Gurbhej Singh | 4 | 4 | Nil | Nil | Nil | Nil |  |  |  |  |  |
| 13 | Mr. Jabarweer Singh | 1 | 1 | Nil | Nil | 1 | Nil |  |  |  |  |  |
| 14 | Ms. Surinderjit Kaur | 3 | 3 | Nil | Nil | Nil | Nil |  |  |  |  |  |
| 15 | Ms. Kiranveer Kaur | 3 | 3 | Nil | Nil | Nil | Nil |  |  |  |  |  |
| 17 | Ms. Prabhjot Kaur | 2 | 2 | Nil | Nil | Nil | Nil |  |  |  |  |  |
| 22 | Mr. Jagdeep Singh | 2 | 2 | Nil | Nil | Nil | Nil |  |  |  | 1 paper |  |
| 23 | Ms.TaniaNagpal |  | 1 | Nil | Nil | Nil | Nil |  |  |  |  |  |

**Department of Applied Sciences & Humanities**

**Papers in National/International Conferences, Seminars, Workshops etc. from 2011 – 2013 (49 no.)**

**Dr AK Tyagi**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Nanophase Ceramic Dielectric Resonator for Mobile Communication Technology. | National Conference On Advancement Of Nano Materials & Its Applications, , | February 15-16, 2011 | Department Of Physics, D.A-V. College, Kanpur- 208001 (U.P.) | National |
| Electoceramic Dielectric Resonator Materials for Microwave Communication, | National Conference ‘Advancements & Futuristic Trends in Material Science’ (AFTMS 2011) on | March 26 – 27, 2011, | M.J.P. Rhohilkhand University, Bareilly, 243001 | National |
| CONDENSED MATTER & MATERIALS PHYSICS  (Key Note Address) | National Conference on Condensed Matter & Materials Physics (CMMP-2011), | 13-14 Oct.2011, | MLB Govt. PG College (Auto), Barkatulla University, Bhopal (MP) India. | National |
| Di-Barium Nonatitanate Dielectric Ceramic Resonator for Mobile Communication Technology, | National Conference on Condensed Matter & Materials Physics (CMMP-2011), | 13-14 Oct.2011, | MLB Govt. PG College (Auto), Barkatulla University, Bhopal (MP) India. | National |
| Synthesis of Di-Barium Nonatitanate Dielectric Ceramic Resonator for Mobile Communication using Nano-phase Precursor Method. | International Conference on Frontiers of Nano-Science, Nanotechnology and their Applications (NanoSciTech-2012), , | Feb. 15-18, 2012 | Panjab University, Chandigarh, India | International |

**Dr Ajay Kumar**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 1 | Comparision of properties of YSZ prepared by microwave and conventional processing | Kanchan L Singh, Anirudh P Singh, Ajay Kumar, S.S. Sekhon  C | International conference and expo on advanced ceramics and composites | Jan 26-31, 2014 | American Ceramics Society, Daytona Beach, Florida, USA | National |
| 2 | Characterization of microwave and conventionally processed magnesium stabilized zirconia ceramics | Ajay Kumar, Navdeep Kaur and A.P. Singh | International Conference on Science & Engineering Materials | Jan 6-8, 2014 | School of Engg. & Tech, Sharda University, Greater Noida (India) | International |
| 3 | Nano NiO-CGO SOFC anode composites precursor - combustion synthesis and characterization | Pankaj Kalra, Rajeev Garg and Ajay Kumar | International Conference on Frontiers of Nanoscience, nanotechnology and their applications (Nanoscitech*-*2012) | Feb 15-18, 2012 | Panjab University, Chandigarh (India). |  |
| 4 | Effect of fuel concentration on electrical properties of NiO-CGO composites – SOFC anode precurssor – prepared via combustion synthesis route | Pankaj Kalra, Rajeev Garg and Ajay Kumar | 2nd National Conference on advanced Materials & Radiation Physics | Nov. 4-5, 2011 | Department of Physics, SLIET, Longowal (India) |  |

**Dr. Lalit Sharma**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1. | | Lalit Sharma& Subhash Chander Sharma | | Poly sorbate-20 modified Sugarcane Bagasse (Saccharum officinarum) charcoal and Kekar saw dust (Acacia nelotica) charcoal for Phenol remediation in aqueous environment-A Comparative Study. | 2014 | 17th Punjab Science Congress at PTU, Jalandhar from Febraury 14-16, 2014. | | | Poster Presented  **Conferred BEST POSTER AWARD** |
| 2. | | Nirmal Singh &Lalit Sharma | | Encapsulation of poorly water soluble drugs by micellization with d-glucose based non-ionic surfactants. | 2014 | 17th Punjab Science Congress at PTU, Jalandhar from Febraury 14-16, 2014. | | | Poster Presented |
| 3. | | Lalit Sharma | | Solubility enhancement studies for poorly water soluble drugs norfloxacin and glinbenclamide by micellar encapsulation using d-glucose based non-ionic surfactants | 2014 | 27th International Carbohydrate Symposium at Indian Institute of Science, Bangalore from January 12-17,2014. | | | Poster Presented |
| 4. | | Lalit Sharma and Nirnal Singh | | Use of d-glucose derived non-ionic Gemini surfactant reverse micelles to encapsulate poorly soluble drugs and nucleobases. | 2013 | 16th Punjab Science Congress Feb. 7-9, 2013  At BFUHS, Faridkot | | | Poster Presented |
| 5. | | Lalit Sharma and Saroj | | Encapsulation of some nucleobases in apolar media using carbohydrate derived non-ionic Gemini surfactants with flexible spacer as reverse micellisation probes. | 2013 | 16th Punjab Science Congress Feb. 7-9, 2013  At BFUHS, Faridkot | | | Poster Presented |
| 6. | Lalit Sharma, Saroj and Nirmal Singh | | Use of d-glucose derived non-ionic Gemini surfactant reverse micelles to encapsulate nucleobases in neat n-hexane | | 2012, PP181 | | Chemical Constellation Cheminar-2012 An International Conference at NIT Jalandhar Sep10-12,2012 | | Poster Presented |
| 7. | Lalit Sharma and Subhash Chander Sharma | | Enhanced bio-sorption of non-ionic surfactants coated plant based biomass for hexavalent chromium in aqueous environment | | 2012,  PP182 | | Contd.........  Chemical Constellation Cheminar-2012 An International Conference at NIT Jalandhar Sep10-12,2012 | | Poster Presented |
| 8. | Raj Kumar, Lalit Sharma, Rajeev Garg, Subhash Chander Sharma & Amit Arora | | Adsorption of congo red on flyash. | | 2012, PP46 | | Chemical Constellation Cheminar-2012 An International Conference at NIT Jalandhar Sep10-12,2012 | | Poster Presented |
| 9. | Lalit Sharma and Saroj | | Carbohydrate based non-ionic Gemini surfactants with flexible spacer as reverse micellar probes for encapsulation of -amino acids in non polar medium | | 2012,  E 43 | | International conference on frontiers in nanoscience, nanotechnology and their applications at Panjab University , Chandigarh Feb. 16-18,2012 | | Poster Presented |
| 10. | Lalit Sharma and Subhash Chander Sharma | | Local plant based novel bio-adsorbents for hexavalent chromium remediation in aqueous environment –A comparative study | | 2012,  B 218 | | 15th Punjab Science congress at G.N.D.Univ., Amritsar from Feb. 7-9, 2012 | | Poster Presented |
| 11. | Lalit Sharma and Saroj | | Carbohydrate based non-ionic Gemini surfactants as reverse micellar probes for encapsulation of -amino acids in non polar medium | | 2012,  B 146 | | 15th Punjab Science congress at G.N.D.Univ., Amritsar from Feb. 7-9, 2012 | | Poster Presented |
| 12. | Amit Arora, A.K.Sinha Shashi Kumar, Nitin Sharma and Lalit Sharma | | Green Diesel production through hydrotreating of vegetable oil | | 2011,  P 10  Poster | | Second International conference on recycling and reuse of materials  Aug. 5-7 | Centre for nanoscience and nanotechnology, Mahatma Gandhi University, Kottayam, kerala | |
| 13. | Lalit Sharma | | Synthesis of Gemini surfactants to remove organic pollutants from waste water. | | 2011 | | National Conference on emerging trends in medical biotechnology & nano-technology  Dec. 3-4 | At ARNI School of basic sciences, ARNI University, Kangra  ***Poster presented*** | |

**Dr Sangeeta Sharma**

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| --- | --- | --- | --- | --- |
| Sr. No | Title of paper | Authors | Name of seminar/ conference | Date and year |
| 1 | Study of treatment strategies for effluents of recycled waste paper mills of Malwa region of Punjab | Bhajan Dass, Dhiraj Sood,  **Sangeeta Sharma** | National conference on Technological advancements in Chemical and Environmental Engg.at BITS, Pilani | 23-24 March,2012 |
| 2 | Conversion of Biomass into Biofuels | Amit Arora, Rajeev Garg,  **Sangeeta Sharma** | National Conference on Material Science at DAV College,Jalandhar | 2-3 March,2012 |
| 3 | Removal of fluoride from water of Muktsar Region of unjab using Rice Husk Ash. | Amit Arora,  **Sangeeta Sharma** | National Seminar on Environmental Degradation at Dayanand Post graduate College, Hisar | 28 Feb.,2012 |
| 4 | Treatment of waste water by using green Technology | Amit Dhir,  Dhiraj Sood,  **Sangeeta Sharma** | National Symposium on Frontiers in Chemical Sciences at P.U. Chandigarh | 24-25 Feb.,2012 |
| 5 | Removal of Arsenic(III) from contaminated ground water by Iron nanoparticles. | Sangeeta Sharma | National Seminar on Chemistry at Punjabi University, Patiala | 15-16 Feb.2012 |
| 6 | Electrochemical fabrication of Zero valent Iron nanowires for removal of Ground water contaminants. | Sangeeta Sharma | National Conference on Recent Advances in chemistry at Arya Postgraduate College, Panipat | 4-5 Feb.,2012 |
| 7. | Investigations of the Effluents of Recycled Waste Paper Industries in Punjab | Bhajan Dass, Dhiraj Sood,  Sangeeta Sharma | International Conference on Innovations in Chemistry at P.U. Chandigarh | 1-3 Dec.,2011 |
| 8 | Study of effect of various oxidants on Decolourization and COD Reduction of Dye Effluents | Amir Dhir,  Dhiraj Sood,  Sangeeta Sharma | National Conference on Thermodynamics at M.D.U. Rohtak | 2-4 Nov,2011 |
| 9 | Synthesis of some Novel Iron and Iron alloys nanowires by anodisation and electrodeposition method | Sangeeta Sharma | National Seminar on Ecological Crisis at Punjabi University, Patiala | 8-9 Sept.,2011 |

**Dr. Anila Gupta**

* A new method for solving generalized assignment problem, Amit Kumar, Anila Gupta, International Congress on Productivity, Quality, Reliability, Optimization and Modelling, Delhi, Feb. 7-8, 2011.

**Dr Kulbhushan Agnihotri**

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| --- | --- | --- | --- | --- | --- |
| Sr. No. | Title | Author(s) | Conferences Details/Publishers | Date and year | Published/oral Presentation/ Poster Presentation |
| 1 | A Holling Type II SIS Predator-Prey Model With Disease in Prey Only | Kulbhushan Agnihotri, Nishant Juneja | 17 th Punjab Science Congress on theme  **Sci. and Tech for Sustainable Growth**  held at PTU, Jalandhar | 14-16Feb, 2014 | Oral Presentation |
| 2 | Ecological Modelling Based On Cellular Automata: A Review | Kulbhushan Agnihotri  Natasha Sharma | 17 th Punjab Science Congress on theme  **Sci. and Tech for Sustainable Growth**  held at PTU, Jalandhar | 14-16Feb, 2014 | Oral Presentation |
| 3 | Mathematical Modelling of Predator-Prey Interactions | Kulbhushan Agnihotri  Harpreet Kaur | 17 th Punjab Science Congress on theme  **Sci. and Tech for Sustainable Growth**  held at PTU, Jalandhar | 14-16Feb, 2014 | Poster Presentation |
| 4 | Use of Optimisation Technique in Solving Real World Problems | Kul bhushan Agnihotri., Sheenu Nayyar  Co-author | 17 th Punjab Science Congress on theme  **Sci. and Tech for Sustainable Growth**  held at PTU, Jalandhar | 14-16Feb, 2014 | Poster Presentation |
| 5 | Effect of Disease on Harvested Prey-Predator System | Kulbhushan Agnihotri ,Nishant Juneja | International Conference on **Information & Mathematical Sciences**. IMS 2013 pp 97-99  **(Elsevier)** | 24-28, Oct, 2013 | Published |
| 6 | The Age of Optimization Solving Large Scale Real World Problems, | Kul bhushan Agnihotri., Sheenu Nayyar, | Proc. of UGC sponsored National Workshop on **Statistics,Optimisation and Mechanism Learning**, Balbir Singh Centre for Sciences, Lyallpur Khalsa College Jalandha (Pb | 30-31, March  2013 | Published |
| 7 | Use of Mathematical Modelling in Prey Predator system | Kulbhushan Agnihotri, Nishant Juneja | Proc. of UGC National Seminar, sponsored by UGC on **Advance Mathematics: Its Implications in Modern Era** held at D.A.V College Batala, Punjab | 25 Feb, 2012 | Published |
| 8 | Application of Operation Research in Socio, Economic growth of Industry | Kul bhushan Agnihotri., Sheenu Nayyar, | Proc. of UGC National Seminar, sponsored by UGC on **Advance Mathematics: Its Implications in Modern Era** held at D.A.V College Batala, Punjab | 25 Feb, 2012 | Published |
| 9 | Use of Mathematical Modelling in Ecology | Kulbhushan Agnihotri, Nishant Juneja | UGC sponsored National Conference on **Emerging Trend in Mathematics & its Applications** held at D.A.V College Jalandhar | 4-6, Feb, 2012 | Published |
| 10 | Emerging Trends in Mathematical Modelling | Kul bhushan Agnihotri., Sheenu Nayyar | UGC sponsored National Conference on **Emerging Trend in Mathematics & its Applications** held at D.A.V College Jalandhar | 4-6, Feb, 2012 | Oral Presentation |
| 11 | The Dynamicsof Disease Transmission in a Prey Predator System With Harvesting of Prey | Sunita Gakkhar  **Kulbhushan Agnihotri** | National Conference On Recent Frontiers in Applied Dynamical System held at Karunya University, Coimbatore | 21-22Jan, 2011 | Oral Presentation |

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| **Dr. Kiranjeet Kaur**  **Conferences** | | | | | |
| **Sr. no.** | **Title of Research Paper** | **Authors** | **Name of the Conference** | **National/International** | **Month/ Year** |
| 1 | Socio-cognitive Correlates of Achievement Motivation among engineering students. | Kiranjeet Kaur | Austalasian Association of Engineering Education | International | Dec.2013 |
| 2 | Building a Humane and Sustainable Society: Need for Reorienting Engineering Education Curriculum | Kiranjeet Kaur | Spirituality and Education | International | Sept.2013 |
| 3 | Gender Differences in Achievement Motivation among Engineering Students | Kiranjeet Kaur | Women And Development | International | Oct.2013 |
| 4 | Understanding Relationship Between Personality Factors and Achievement Motivation for Enhancing Quality of Engineering Education | Kiranjeet Kaur |  | Natonal Seminar | Feb 2013 |
| 5 | Role of Parents in relation to Achievement Motivation among Engg Students | Kiranjeet Kaur and  Suninder Tung | International Conference of Applied Psychology, Punjab University, Chandigarh | International | Feb., 2012 |
| 6 | Role of Teachers in Moral Development of Engineering Students. | Kiranjeet Kaur and Tejeet Singh | Moral and Ethical Values for Professionals | National | April 2011 |

* Number of papers published in peer reviewed journals (national/international )by faculty and students
* Faculty publications (2011 – 2014) in International/ National Journals (46 no.)

**Publications in Refereed Journals**

**Dr AK Tyagi**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 1 | Analysis of Properties For SiC,Al2O3 And MgO as Reinforcement Keeping Particle Size At 0.220 in (A384.1)1-x [P]x | Int. Journal of Advanced Engg. Technology, II (III), pp. 312-319, 2011 | **E-ISSN 0976-3945** | --- | Nrip Jit, **Anand K. Tyagi**, Nirmal Singh |
| 2 | Micro-hardness and Macro-hardness for SiC,Al2O3 and MgO as reinforcement in Al Alloys using Mamdani FIS Approach | Int. Review of Applied Engg. Research, 1 (3), pp.189-199 (2011). | ISSN- 2248-9967 |  | Nripjit, **A.K. Tyagi**, Jagdev Singh & Nirmal Singh |
| 3 | Comparison of porosity and density for (A384.1)1-x[(reinforcement)p]x MMC system using Adaptive Neuro-Fuzzy Infernce system | Advances in Applied Science Research, (USA) AASRFC, 2 (4), pp. 240-250, 2011 | ISSN 00976-8610  CODEN (**USA**): **AASRFC** |  | Nripjit, **A.K. Tyagi**, Jagdev Singh & Nirmal Singh |
| 4 | An overview of metal matrix composite: Processing and SiC based mechanical properties | Journal of Engineering Research and Studies II (IV), pp.75-83, 2011. | E-ISSN 00976-7916  ISSN 1819-6608 | 0.7120 | Nripjit, **A.K. Tyagi**, Jagdev Singh & Nirmal Singh |
| 5 | Metal Casting- A General Review | Advances in Applied Science Research, 2 (5): 360-371, 2011 | ISSN: 0976-8610  CODEN (USA): AASRFC |  | H. Pal, Nrip Jit, Anand K Tyagi, S. Sidhu |
| 6 | INVESTIGATION OF TENSILE STRENGTH OF Al 384.1 BASED  SiCp REINFORCED METAL MATRIX COMPOSITE (MMC) | Journal of Engineering Research and Studies  III (I), 149-151, 2012 | E-ISSN0976-7916 | 0.7120 | Harinder Pal Singh  , Nripjit, Sarabjeet, A.K.  Tyagi |
| 7 | Effect of Grain-Size of Starting Materials on Synthesis of Nano/Micro-Phase Dibarium Nonatitanate Based Dielectric Ceramics | Asian J. of Exp. Sciences, 25 (2), p.54, 2011 | ISSN 0971-5444 |  | Parul & **Anand K Tyagi** |
| 8 | Di-Barium Nonatitanate Dielectric Ceramic Resonator for Mobile Communication Technology | Asian J. of Exp. Sciences 25 (2), p.31, 2011 | ISSN 0971-5444 |  | **Anand K. Tyagi** & Parul |
| 9 | Synthesis of Nonatitanate based Dielectric Ceramic using various Grain Size of Starting Materials, | Ind. J. Appl. Res. 1 (6) pp.230-232, 2012. | ISSN 2249-555X |  | Parul and Anand K Tyagi |

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| **Dr Ajay Kumar** | | | | | |
| **Sr. No.** | **Author / s** | **Title of the paper** | **Year, Volume, page no.** | **Journal Name** | **ISSN No. & Impact Factor** |
| 1. | Pankaj Kalra,Rajeev Garg, Neel Kanth Groverand **Ajay Kumar**; | Structural properties of anode composites precursor of a solid oxide fuel cell prepared via combusten synthesis route; | **2012**  **1**(2), 36 | Asian J. Engg. & Applied Tech | ISSN:  2249-068X |
| 2. | Pankaj Kalra, Rajeev Garg, **Ajay Kumar** and A.P. Singh; | Electrical characterization of NiO-CGO composites-SOFC anode precursor- prepared via combustion synthesis route; | **2014**  **3** (5) 12071 | International J. Innovative Research in Science, Engineering and Technology; | ISSN:  2319-8753 |

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| **Dr. Lalit Sharma** | | | | | | |
| **Research Papers in Peer Reviewed International / National Journals** | | | | | | |
| **Sr. No.** | **Author / s** | **Title of the paper** | **Year, Volume, page no.** | **Journal Name** | **ISSN No. & Impact Factor** |
| 1. | Lalit Sharma, Saroj & Nirmal Singh | Reverse micellar encapsulation of D- and L- enantiomers of some aromatic ∝-amino acids and nucleobases by glucose derived non-ionic gemini surfactants in neat n-hexane | **2014** | Journal of Surfactants and Detergents  **Springer, USA** | ISSN: 0932-3414  Imp. Factor  1.52 |
| 2. | Lalit Sharma and Subhash Chander Sharma | Tween-20 modified acacia nilotica and oryza sativa biomass for enhanced biosorption of Cr(VI) in aqueous environment  Tenside Surfactants Detergents | **2014**  **Accepted** | Tenside Surfactants Detergents  **Hanser, Germany** | ISSN: 1097-3958  Imp. Factor  1.00 |
| 3. | Lalit Sharma, Saroj & Nirmal Singh | Micellar encapsulation of some polynuclear aromatic hydrocarbons by glucose derived non-ionic gemini surfactants in aqueous medium | **2013**  **Accepted** | Tenside Surfactants Detergents  **Hanser, Germany** | ISSN: 1097-3958  Imp. Factor  1.00 |
| 4. | Lalit Sharma and Subhash Chander Sharma | Tween 20 modified sugarcane bagasse (saccharum officinarum) and sheesham sawdust (dalbergia sissoo) for Cr(VI) remediation in aqueous environment | 2013, 2(2), 1-13. | International Journal of Applied Research & Studies | ISSN: 2278-9480 |
| 5. | A. Kaura, Lalit Sharma and Monika Kaura | Synthesis and comparative antimicrobial study of beta-lactam derivatives | 2013, 2(2), 560-565 | International Journal of Pharmaceutical and Chemical Sciences | ISSN: 2277-5005 |
| 6. | Lalit Sharma and Saroj | Novel glucose derived non-ionic gemini surfactants as reverse micellar systems for encapsulation of D- and L- enantiomers of some aromatic -amino acids in n-hexane | 2012,  74,  251-256  DOI: 10.1007/s10847-012-0107-y | Journal of Inclusion Phenomena and Macrocyclic Chemistry  **Springer, USA** | ISSN: 0923-0750  Imp. Factor  1.886 |
| 7. | A. Kaura, Lalit Sharma and V.J.Dhar | Spectral and antimicrobial study of some novel schiff’s bases and-lactam derivatives | 2012, 5(1),  129-132 | Research Journal in Pharmacy and Technology | ISSN: 0974-3618 |
| 8. | Lalit Sharma, N.K.Grover, Manvendra Bhardwaj and Ishant Kaushal | Comparison of Engine Performance of Mixed Jatropha and Cottonseed derived Biodiesel blends with conventional diesel. | 2012. 3(1),  29-32. | International Journal of Emerging Technologies | ISSN: 0975-8364 |
| 9. | A. Kaura, Lalit Sharma and V.J.Dhar | Synthesis, spectral and antimicrobial study of some novel schiff’s bases andbeta-lactam derivatives | 2011, 9(4), 2009-2015 | International Journal of Chemical Sciences | ISSN: 0972-768X  Imp. Factor  0.063 |
| 10. | Lalit Sharma | Synthesis of glucose based water soluble Molecular Tweezers as molecular recognition scaffolds. | 2011, 8(1),  319-325 | E. Journal of Chemistry  **Hinwai, USA** | ISSN: 0973-4945  Imp. Factor  0.716 |
| 11. | Lalit Sharma, Subhash Chander Sharma and Saroj | Studies in the Asymmetric epoxidation of chalcone using quaternary salts and non-ionic surfactants based on 6-amino-6-deoxy-glucose as phase transfer catalysts. | 2011, 8(3), 1293-1297 | E. Journal of Chemistry  **Hinwai, USA** | ISSN: 0973-4945  Imp. Factor  0.716 |

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| **Dr Sangeeta Sharma** | | | | | | |
| S. No | Title of Research Paper | Authors | DOI  ISSN no. | I.F | Journal name  (Publisher) | M / Yr  (Vol., Pg.) |
| 1 | Environmental Assessment and Remedial Strategies for Treatment of Effluents of Recycled Waste Paper Mills. | Bhajan Dass, **Sangeeta Sharma**& Dheeraj Sood | ISSN: 09702083 | H.Index: 08 | Journal of Industrial Pollution Control | 26(2), 2011,  185-189 |
| 2. | Decolourization of Methylene Blue Based on The Surface of Biomass Adsorbent | Navneet Kaur,  **Sangeeta Sharma** | ISSN:0257-8050 | H.Index: 14 | Pollution Research | In Press |
| 3. | Ground Water Quality in Residential Colonies of Moga(Punjab) | Sunita Mittal &**Sangeeta Sharma** | ISSN: 0970-0420 | - | Environment & Ecology | 29(2), 2011,  658-662 |
| 4 | Study of effect of various oxidants on Decolourization and COD reduction of dye effluents | Amit Dhir, Sangeeta Sharma & Dhiraj Sood |  |  | Communicated |  |
| 5. | A study on the treatment strategies for the effluents of recycled waste paper mills of Malwa region of Punjab | Bhajan Dass, sangeeta Sharma & DhirajSood |  |  | Communicated |  |

**Dr Anila Gupta**

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| Sr. no. | Title of Research Paper | Authors | Journal name  ( Publisher) | Volume |
| 1 | Mehar’s method to find exact fuzzy optimal solution of unbalanced fully fuzzy multi-objective transportation problems | Anila Gupta,  Amit Kumar, Amarpreet Kaur | Optimization Letters (Springer) | 6(2012)  1737-1751 |
| 2. | A new method for solving linear multi-objective transportation problems with fuzzy parameters | Anila Gupta,  Amit Kumar | Applied Mathematical Modelling  (Science Direct) | 36 (2012)  1421–1430 |
| 3. | Application of tabu search for solving the bi-objective warehouse problems in fuzzy environment | Anila Gupta,  Amit Kumar,  Mahesh Kumar Sharma, | Iranian Journal of Fuzzy Systems | 10 (2012)  1-19 |
| 4. | Methods for solving Fuzzy assignment problems and fuzzy traveling salesman problems with different membership functions | Amit Kumar,  Anila Gupta | Fuzzy Information and Engineering | 1 (2011)  3-21 |
| 5. | Method for solving fully fuzzy assignment problems using trapezoidal fuzzy numbers | Amit Kumar,  Anila Gupta,  Amarpreet Kaur | Advances in Fuzzy Mathematics | 6 (2011)  39-51 |
| 6. | A new method for solving fuzzy generalized assignment problems with L-R type fuzzy parameters | Amit Kumar,  Anila Gupta | Journal of Advanced Research in Applied Mathematics | 3(2011)  74-84 |
| 7. | Applications of fuzzy linear programming with  generalized *LR* flat fuzzy parameters | Anila Gupta,  Amit Kumar,  Mahesh Kumar Sharma, | Fuzzy Information and Engineering | 4 (2013)  475-492 |

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| **Dr. Kulbhushan Agnihotri** | | | | | |
| **Sr. No.** | **Author / s** | **Title of the paper** | **Vol, Year, page no.** | **Journal Name** | **ISSN No. & Impact Factor** |
| **1** | Amit Sharma  Anuj Sharma  **Kulbhushan Agnihotri** | The Dynamics of Plankton Nutrients Interaction with Delay | 231 (2014)503-515 | Applied Mathematics and Computation **(Elesvier)** | ISSN No. 2010376x  **Imp Factor:**  **1.5** |
| **2** | Anuj Sharma  Amit Sharma  **Kulbhushan Agnihotri** | Bifurcation Analysis of a Plankton Model with discrete delay | Vol.8 No.1 (2014) 77-86 | **WASET**  Int. J of Mathematical, Computational Sci. & Engg. | ISSN No. 2010376x  **International Sci. Index 85, 2014** |
| **3** | **Kulbhushan Agnihotri** S. Gakkhar | The Dynamics of Disease Transmission in a Prey Predator System with Harvesting of Prey | 1  (2012) 1-17 | Int. J. of Adv Res comp Engg & Tech | ISSN:  2278 – 1323  **Imp Factor: 2.793** |
| **4** | **Kulbhushan Agnihotri** N. Juneja | Prey Predator System with Differential Predation Rate | 1  (2012), 1-8 | V. Int. Res. J. of Sc. & Tech | ISSN:  2277-999X |
| **5** | **Kulbhushan Agnihotri**, S.Gakkhar, N. Juneja | Disease Transmission in Prey to Predator System: Effect of Immigration | 1  (2012), 39-45 | V. Int. Res. J. of Sci. & Tech | ISSN:  2277-999X |

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| **Dr. Kiranjeet Kaur** | | | | | |
| **S. No.** | **Title of Research Paper** | **Authors** | **ISSN no.** | **Journal** | **Year** |
| 1 | Gender Difference in Learning Style among Engineering Students | Kiranjeet Kaur | 2320-9526 | Pedagogy of Learning: An International Journal of Education | 2013 |
| 2. | Parental Relationship with Children, Parental Involvement and Parental Pressure to Achieve High as Correlates of Achievement Motivation among Engineering Students | Kiranjeet Kaur | 0976-1160 | EDUSEARCH | 2013 |
| 3 | Gender differences in learning styles among engineering students. | Kiranjeet Kaur | 2320-9526 | Pedagogy of Learning: An international journal of education | 2013 |
| 4 | A study of the relationship between self beliefs and achievement motivation. | Kiranjeet Kaur | 0976-8203 | MIER journal of education studies Trends & Practices | 2013 |
| 5. | Do personality factors differentiate between high achievers and low achievers among Engineering Students? | Kiranjeet Kaur | 2320-009X | Educationia Confab | 2013 |
| 6 | Role of Attitude towards the Area of Study in Relation to Achievement Motivation. | Kiranjeet Kaur and Suninder Tung | 0972-3803 | Personality Study and Group Behavior | 2011 |
| 7 | Psychosocial correlates of Achievement Motivation in students. | Kiranjeet Kaur and Suninder Tung | 0973-5755 | Journal of Indian Health Psychology | 2011 |

**Annexure VII**

**Books published**

**Department of Mechanical Engg.**

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| --- | --- | --- | --- |
| **Title of Book** | **Authors** | **Publisher** | **ISBN No.** |
| Functionally Graded Rotating Cylinder | Dr. Tejeet Singh and Nitin Kapoor | Lambert Academic Publisher, Germany | 978-3-659-35725-1 |
| Simulation Of Tool Flank Wear | Dr. Tejeet Singh | Lambert Academic Publisher, Germany | 978-3-659-16474-3 |
| Achieving Business Excellence Through Total Productive Maintenance | Dr. Tejeet Singh and Dr. Vinod Kumar | Lambert Academic Publisher, Germany | 978-3-659-20346-6 |
| Wear Behavior-Some Detonation Gun Sprayed Coatings On Grey Cast Iron | Mr Jwala Parshad | LAP LAMBERT Academic Publishing GmbH & Co. Germany | 978-3-8465-8118-6 |

**Department of Applied Sciences & Humanities**

**Books published as author/ editor**

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| S.N. | Title with  page no. | Type of Book  & Authorship | Publisher  & ISSN/ISBN No. | Whether  Peer  Reviewed | No. of Coauthors  and date of publication |
| 1 | Fundamentals of Engineering Physics | Text Book  (2 authors) | Dhanpat Rai & co. Pvt. Ltd. New Delhi | yes | 01 co-author  First Edition 2003 |
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**Annexure VIII**

**RESEARCH AWARDS / RECOGNITION RECEIVED BY THE FACULTY.**

**Department of Chemical Engg.**

i). Varun Suri, Vikram kumar, Harpreet kaur; Students of Final Year under Ms. Balpreet Kaur won second prize in National conference on Recent Advances in Chemical and Environmental Studies(RACES-2012) 3 March, 2012 held at Multani Mal Modi college Patiala, for their paper titled “Variation in COD of Pulp And Paper mill Effluent on treatment with Bio Degradable Polymer”.

ii) Amit Kumar, Avinash Kumar, Shamsher Singh Rawat, Ishan Manchanda, Jaskaran Singh, Ramandeep under Ms. Balpreet Kaur won second prize in TECHNO OPUS 2014 held at SBSSTC Ferozepur for their paper titled “Removal and Recovery of Phosphorous from Waste Water by using Magnetite” based upon environmental pollution control.

**Department of Mechanical Engg**

**DR T S Sidhu**

* + 1. NACE International India Section has awarded “Best Ph.D.Award”, along with a citation and cash award of Rs. 5000 for meritorious contributions in the field of corrosion sciences.
    2. Got ‘Student Award’ to attend the “International Conference on Surfaces, Coatings and Nanostructured Materials” held at University of Aveiro, Portugal, on 6-9 September 2005.
    3. Got appreciation letter from IIT Roorkee for submitting Ph.D. thesis in a record time of 02 years and 04 months, with record number of publications i.e. 18 research papers in international referred journals of repute and 07 research papers in international conferences out of Ph.D. thesis.
    4. One of my papers titled “Hot Corrosion of Some Superalloys and role of High-Velocity Oxy-Fuel Spray Coating-A Review, has been rated at 6th position among the top 25 papers of the international journal “Surf. Coat. Technol.” (Elsevier).
    5. Got rare distinction of publication of ‘Bio-data’ in the American Journal “Journal of Thermal Spray Technology” Vol. 15(3), pp. 320-322, under the column ‘Meet Our New Colleague’. This column of the journal presents selected currently graduating Ph.D. students in the thermal spray field around the world.

**Mr Gazalpreet**

1. Best Teacher Award given by Lion Club Ashirwad, Ferozepur & AGREED Foundation Ferozepur in Sept2013
2. Awarded by District Administration Ferozepur on 15th August (Independence Day Celebrations) in recognition of services rendered under SVEEP project of election commission of India for Voters awareness campaign in college like, painting competition, Human chain, Debate, Workshop, signature campaign ,slogan writing competition.
3. Award given by Shaheed Bhagat singh , Sukhdev and Rajguru memorial society.

**Mr R P Singh**

Received the alumni appreciation award at NIT Jalandhar