

**FOREWORD**

I have the privilege in presenting the 54th Annual Report of National Institute of Technology Srinagar, Hazratbal, Kashmir(J&K) for the year 2013-14. The Institute offers eight(08) B. Tech courses in Civil; Electrical; Electronics & Communication; Mechanical; Chemical; Metallurgical & Materials; Computer Science and Information Technology, besides M. Tech programmes in Civil Engineering, Electrical Engineering, Electronics & Communication Engineering and Mechanical Engineering Departments. This year we have started two more M.Tech. programmes in Mechanical and Electrical Engineering departments. We have Ph. D programme in all Departments and M.Phil programme in the Faculty of Applied Sciences. Our faculty actively participated in National and International conferences/seminars, Workshops, expert lectures and other related research activities and presented a good number of papers in these conferences/seminars. They also organized various workshops / conferences at NIT Srinagar. Apart from these, many R&D sponsored projects are in progress. Institute is able to generate substantial resources through consultancy also.

The Department of Training and Placement has been making enormous efforts for the placement of its students. During the year under report many multinational and national companies, both core and software visited our Institute for Campus recruitments. It gives meimmense pleasure to mention that the placement has been very satisfactory during the year under report. Further, the students of the Institute actively participated in various co-curricular and extra-curricular activities within and outside the Institute and won laurels. The Institute encourages the students in all such activities.

The Institute rendered useful services to other sister Institutions and continued to offer expertise and consultancy services to various government/ public/ private organizations.

The Institute has made MoUs with NITs, IITs, Research Organizations to strengthen teaching learning and research activities. I am very happy to mention that NIT Srinagar has been awarded “Outstanding Engineering Institute of North” by Danik Bhaskar Group. Prof. Rajat Gupta, Director NIT was awarded “Education Leadership Award” by Headlines Today. Two students of Civil Engineering were awarded best paper in one International Conference held in NIT Nagpur.

Before I conclude, let me put on record my sincere gratitude to MHRD, Government of India, Chairman BOG, Members of the BOG/FC/Senate, faculty, staff and the students of this Institute for their co-operation and support in running the affairs of the Institute smoothly.

Last but not the least, I record my appreciation of the team under the Chairmanship of Registrar, Prof. F. A. Mir for compilation of the Annual Report 2013-14.

 **(Prof. Rajat Gupta)**

**Director**

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**1.0. INTRODUCTION**

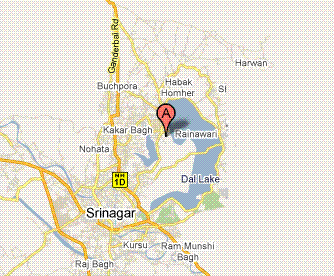
1.1. HISTORICAL BACKGROND

The National Institute of Technology (NIT) Srinagar, (erstwhile Regional Engineering College), was established in July, 1960, by the joint venture of Govt. of India and the State Government during the 2nd plan period. It was one among the first batch of 8 such Institutes which were set up in the country. The other seven Institutes were Allahabad, Bhopal, Durgapur, Jamshedpur, Nagpur, Surathkal, and Warangal.The Institute initially started functioning in the historical *Chinar* garden of *Naseem Bagh* at *Hazratbal,* Srinagar, adjacent to the campus of University of Kashmir on the North side which is about 1.5 kilometres away from the present Campus which was acquired for the Institute simultaneously and work of construction started. The Institute started shifting to the present campus in 1966.

In 2003 the Institute was declared as National Institute of Technology with Deemed University Status by the Ministry of Human Resource Development (MHRD), Govt. of India and University Grants Commission (UGC). Presently the Institute is functioning as a full fledged University. Even going through the difficult times due to conditions in the valley in 90’s, the Institute has proved its mettle through its output at various levels and has become a prestigious Institute of the region.



|  |  |  |
| --- | --- | --- |
| 1.2. THE CAMPUS & ITS LOCATION |  |  |

The Institute is located in Srinagar ,the summer capital of J&K at Hazratbal, Srinagar 10KMS. From the city centre. The Campus is surrounded by the scenic Himalayan ranges, the Zabarwan Hills and world famous Dal Lake on its East side and the most revered shrine of the Country Hazratbal Shrine on the North side. Hazratbal is well connected with most parts of the city by a dependable road transport service.

The campus is about 22 KMs away from the airport on the national highway to Ladakh which is easily accessible by frequently plying transport. The nearest railway station is Jammu Tawi which is located about 304 km from the Institute campus. The Srinagar-Jammu highway passes through high mountain passes which are picturesque and enjoyable, and can be covered in about 7-8 hours by a private taxi/car..

The Institute is having a lush green campus spread over 67 acres of land on the banks of world-famous Dal Lake.

The Institute is residential with accommodation facility for students and staff in hostels and Residential Quarters. There are five boys and one girls hostels which accommodate about 2000 boys and 200 girls with separate mess facility for each hostel.

Almost all necessary facilities and amenities are available in the campus which include cafeteria, shops, bank, medical unit with ambulances, guest house, students activity centre, gymnasium, computer services centre with internet facility, bus facility, centralized library etc.

2.3 ADMINISTRATION

National Institute of Technology is an autonomous Institute under the direct control of ministry of Human Resource Development (MHRD), Govt. of India (GOI). The Institute functions under the overall guidance and control of Board of Governors (BOG). Director is the academic and executive head of the Institute. He is the Ex-Officio of the Board of Governors and is responsible for maintaining proper administration and discipline and imparting instructions for smooth functioning and overall development of the Institute.

Director is assisted in the day-to-day affairs of the Institute by the Deans, Heads of the Departments & Centres, Registrar, various committees, officers in- charges and other officers.

The various other Important Committees in addition to BOG, responsible for advising in respect of the various matters of the Institute, include:

**Senate** for Academic Affairs

**Finance Committee (FC)**  for Financial Matters

**Building Works Committee (BWC)** for Developmental Works

**2.0 ACADEMICS**

2.1. Education System

* Four years full time Bachelor of Technology degree courses offered in Civil Engineering, Chemical Engineering, Computer Science Engineering, Electrical Engineering, Electronics and Communication Engineering, Information Technology Engineering, Mechanical Engineering and Metallurgical and Materials Engineering branches.
* Master of Technology (M.Tech) degree courses on full time & part- time basis offered in Civil Engineering, Electronics & Communication Engineering and Mechanical Engineering departments.
* The duration of M.Tech. course is two years (broken up in four semesters) and 3 years for those admitted under part-time program.
* Advanced degree of Doctor of Philosophy (Ph.D.) is awarded by the Faculty of Engineering in its available branches.
* Master of Philosophy and Doctor of Philosophy is awarded by the faculty of applied science and Humanities & Social Science Department.
* The academic session is divided into two semesters, an autumn semester (August–December) and a Spring semester (March–July).
* The Semester system is enforced at both under-graduate (U.G.) and post graduate (P.G.) levels.
* The Senate approves the academic calendar consisting of schedule of activities for the whole year including dates for registration, semester examinations, inter-semester breaks, sports activities, annual day etc.
* Medium of instructions and examination for all courses including writing of dissertations of B.Tech /M.Tech /M.Phill and Ph.D. thesis is British English.
* 05 days week period with at least 90 working days in each semester.
* Week days used for E.C.A. and other such activities.
* Credit Based continuous Assessment System with two minors and one major examination in each semester.
* Compulsory Practical training & visits to the work sites both at graduate and post graduate levels.

**2.2. ACADEMIC PROGRAMMES**

The academic programmes of the Institute comprises of the programmes at under graduate, post graduate and Ph.D. levels. Institute has a student enrollment of 2465. The sanctioned faculty strength as on date is 198.

The Institute has eight Engineering Departments, four Allied Departments and three Centres. These are:

**Engineering Departments**

i)Civil Engineering , ii)Mechanical Engineering, iii)Electrical Engineering, iv)Electronics and Communication Engineering, v)Chemical Engineering, vi)Metallurgical and Materials Engineering, vii)Computer Sciences Engineering, and viii) Information Technology

**Allied Departments**

i)Mathematics ii)Physics, iii)Chemistry and iv)Humanities &Social Sciences.

**Centres**

i)Water Resources and Management Centre, ii)Maintenance Engineering Centre and iii)Computer Services Centre.

**2.3. COURSES OFFERED**

**B. Tech. Degree programme**

The Institute offers four years (eight semesters) full- time B.Tech degree programme in the following branches of engineering;

1) Chemical Engineering;

2) Civil Engineering;

3) Computer Science Engineering;

4) Electrical Engineering;

5) Electronics and Communication Engineering;

6) Information Technology;

7) Mechanical Engineering;

8) Metallurgical and materials Engineering.

**M. Tech. Degree Programme**

The Institute offers both full- time / part-time M. Tech. Degree Programmes in the following engineering disciplines:

1) Structural Engineering *(Civil Engineering)*

2) Water Resources Engineering *(Civil Engineering)*

3) Communication and Information Technology *(Electronics & Comm. Engg.)*

4) Mechanical System Design *(Mechanical Engineering)*

*5) Industrial Tribology and Maintenance Management -do-*

*6) Electric Power and Energy System (Electrical Engg.)*

Despite the acute shortage of space for development of infrastructural facilities, two New P.G. Programmes have been approved for admission in 2014-15. These programs are:

1) M.Tech. in Geotechnical Engineering *-( Civil Engineering Dept.)*

2) M.Tech. in Transportation Engineering *-( Civil Engineering Dept.)*

**M. Phil Programme**

The Institute also offers full- time /part- time M.Phill degree programme in the following departments:

1. Physics

2. Chemistry

3. Mathematics

4. Humanities and Social Sciences

**Ph. D. Programme**

The Doctoral Degree programmes are being offered in all the Engineering and Allied departments. These programmes are offered on both full-time and part-time basis. About 100 Scholarships at the rate of Rs.20,000/- per month have been recently approved for the scholars pursuing their Doctoral programmes

**2.4. ADMISSION PROCEDURE**

**2.4.1 Undergraduate Courses**

As per the policy of Govt. of India for NIT’s, admission to U.G. programmes is made on the basis of the merit in national level test Joint Entrance Examination ( JEE) mains, conducted by Central Board of Secondary Education (CBSE). Eligible candidates can seek admission in any NIT of the country as per JEE merit. The Govt of India has fixed 50% quota of seats for J&K State and 50% quota for other States, based on pure merit in JEE main.

**2.4.2 Post-graduate courses**

The admission for Post graduate courses is made through CCMT based on GATE scores. However, admissions through a written test for sponsored candidates on full time and part-time basis is also available for inservice candidates interested in seeking admission in Post graduate Programmes.

The M. Tech Programme is of two years spread (four semesters) and a total number of 60 credits are required to be earned for its award. The coverage of various courses, labs, seminars, field work, dissertation etc is an essential part of the M.Tech. programmes.

**2.4.3 M. Phil / Ph.D.**

The Selection of candidates for M. Phil/ Ph.D. Programme is made through an Entrance test followed by viva voce examination conducted by the concerned Departmental Research Committee (DRC).The candidates with satisfactory performance are selected for M. Phil/ Ph.D. Programme.

**2.5. ACADEMIC CALENDAR**

The following Academic Calendar prepared by the Institute and approved by the Senate, was notified for the students and staff. The Academic Calendar is prepared in such a way so that all the curricular, co-curricular, extra-curricular and other related activities/programmes of the students are well distributed over the semester period.  **The calendar was implemented successfully.**

Academic Calendar for the Session-2013

1. **SPRING SESSION**

**2nd, 4th, 6th & 8th semester**

1. Date of Registration 01- 03- 2013 to 05-03- 2013

2. Date of late Registration 06- 03- 2013 to 08- 03- 2013

3. Classes begin for Spring Session 06- -03- 2013

4. First Minor Examination for 15- 04- 2013

B.Tech./ M. Tech./M.Phil/Ph.D begin

5. Date of Extra Curricular Activities 19-04-2013 to 21-04-2013

6. Second Minor Examination. 27- 05- 2013

for B.Tech./ M.Tech./M.Phil/Ph.D begin

7. Final date for submission of B.Tech. Project 17-06-2013

and M.Tech. Dissertation

8. End of Teaching 28-06-2013

9. Final Term Examination 29- 06- 2013

for B. Tech./ M. Tech. begin

10. Semester break for students only 27-07-2013 to 04-08-2013

11. Supplementary Examination 30- 07- 2013

For B.Tech ODD semesters begin

12. Showing of Evaluated Answer Books 05-08-2013 to 10-08-2013

to students

13. Sending of award rolls of EVEN within (10) days after completion of

Semesters examination examination.

14. Declaration of EVEN semesters results 15 days after completion of examination

subject to timely receipt of awards

from various departments.

**B) AUTUM SESSION**

**Ist, 3rd, 5th & 7th semester**

1. Date of Registration 05- 08- 2013 to 07- 08- 2013

2. Date of late Registration 08- 08- 2013 to 10- 08- 2013

3. Classes begin for Autumn Session 07- -08- 2013

4. First Minor Examination for 09- 09- 2013

B.Tech./ M. Tech./M.Phil/Ph.D begin

5. Date of Extra Curricular Activities 14-09-2013 to 16-09-2013

6. Second Minor Examination. 21- 10- 2013

for B.Tech./ M.Tech/M.Phil/Ph.D. begin

7. End of Teaching 22- 11- 2013

8. Final Term Examination 25- 11- 2013

for B. Tech./ M. Tech./M.Phil/Ph.D begin

9. Supplementary Examination 01- 03- 2014

for B.Tech EVEN semesters begin

10. Showing of Evaluated Answer Books 25-12-2013 to 30-12-2013

to the students

11. Sending of award rolls of ODD within (10) days after completion of

Semesters examination examination of each paper.

**2.6. STUDENTS**

The present student strength of the Institute is 2465 which is expected to go up to 3000 within the next 2 to 3 years. The Institute has been able to attract the students from all parts of the Country. Students of NIT Srinagar have in addition to doing well in academics but also in other co-curricular and extra-curricular activities as well. The students actively participate in the Institute affairs. The welfare of students is one of the major priorities of the Institute. For this purpose Students’ affairs wing works towards the holistic development of the students.

**2.7 EXAMINATION AND EVALUATION**

All under graduate, post graduate and M.Phill / Ph.D. examinations, of the Institute are conducted centrally by the Examination Section of the Institute. The medium of examination for all examinations including dissertations and thesis is British English.

The performance of a student is evaluated in terms of two indices viz; the Semester Grade Point Average (SGPA) for a semester and Cumulative Grade Point Average (CGPA) which is the Grade point index for all the completed Semesters at any point of time. The Semester Grade Point Average (SGPA) is calculated on the basis of grades obtained in all courses in a semester and Cumulative Grade Point Average (CGPA) is calculated on the basis of pass grade in all completed semesters.

For each course, a grade is awarded on the basis of three written examinations in the case of theory papers i.e. Minor-I, Minor-II and Major with weight-age of 20, 20 and 50 marks, respectively. 10 marks are reserved for class performance and attendance of the student in the course. The paper setting and evaluation is done at the concerned Department level and monitored by a Departmental Monitoring Committee (DMC). Both Minor examination answer scripts are returned to students and the major answer scripts is shown to them before submission of grade to the DMC.

B.Tech. students are required to submit a project report at the end of the 8th semester, which starts in 7th semester. It is to be submitted in the form of a bound thesis. The Heads of the Departments constitute a Project Evaluation Board (PEB) which assesses each individual project of the students. The evaluation is done in the following manner:-

|  |  |  |
| --- | --- | --- |
| **SUPERVISOR**  **40%** | **EVALUATION BOARD**  **60%** | |
| Based on the work done by the student during the tenure of the Project) | 20% for Project Report Contents & Quality | 40 %  For Presentation & viva voce |

The Project Evaluation Board comprises of:-

i)Head of the Dept. Concerned, ii) one senior most faculty member of the concerned department, iii) Supervisor concerned, and iv) One expert from any other sister Department of the Institute for B.Tech.

In case of M.Tech. the expert is from outside the Institute, nominated by Director from an approved panel.

**2.8. PLACEMENTS**

The Institute has a well established Training and Placement (T &P) Department which takes care of the Technical/Industrial training and the Placement of the Students. The T & P Department is usually headed by a senior faculty member. The Department of T&P arranges for the industrial/work training of the students which is an essential requirement at 5th/7th semester levels of B. Tech. program and it also takes care of on-campus placement of the students by inviting /interacting with various agencies. Students from different departments of the Institute are also involved in the relevant activities of the T&P Department. The T&P Department also arranges trainings for the students for their better performance in interviews and other presentations.

**2.9. GAMES & SPORTS**

The sports activities of the Institute are looked after by the Physical Education Section of the Institute. The Section puts in every effort to develop the sports activities for the bona-fide students of the Institute. The students are provided all possible facilities for their active participation in co-curricular and extra-co curricular activities. They are also encouraged and provided all opportunities to participate in all major sports events including participation in inter-class, inter-semester, inter-college, games/sports and other competitions. Besides this they are involved in a wide spectrum of social, cultural and technological activities throughout the year.

Both genders are fully exposed to higher level of competitions conducted at national and state level.

**2.10. CAMPUS INFRASTRUCTURE**

For maintenance and development of the campus infra-structure, the Institute has Planning and Development Wing which has three separate divisions of Civil Construction, Estates and Electrical Maintenance & Repairs.

The present campus is spread over 67 acres of land on the banks of World famous Dal lake. The land area available being insufficient, the Institute continues its efforts to provide the necessary infra-structure for better academics standards . Acquisition of additional land for the campus is also under consideration and it is hoped that in near future the Institute will succeed in acquiring additional campus.

For every Department of the Institute there are well established required laboratories, class rooms and other facilities. The Institute Campus being a residential one, has the residential facilities for both students and staff of the Institute. The construction of a Mega Hostel is under active consideration of the authorities to meet the additional requirements of the accommodation resulted from the increased in take of the students.

The Institute has all basic and required amenities for the students and staff which include Medical Unit, Computer Services Centre, Well Maintained Play Ground, Recreational Centre, Students Activity Centre, gymnasium, Transport facility etc.

**2.11. STAFF POSITION**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **S.No:** | | **Position** | **Staff**  **sanctioned** | | **Staff in position** |
| **1.Academic Staff:** | | | | | |
|  | Director | | 01 | 01 | |
|  | Professors, Associate Profs. and Assistant Professors | | 198 | 82 | |
| **2 Sr. Administrative 24 13**  **Staff**  **3. Non-Teaching 160 51**  **(Ministerial)**  **4. Teaching 206 205**  **5. Supporting 247 54**  However now as per restructuring of the Non-faculty staff the strength of this staff will be 218 as per the approved policy of 12 students : 1 Faculty: 1.1 Non-faculty staff. | | | | | |

3.0 ACADEMIC STATISTICS

3.1. COURSES OFFERED

**3.1.1. B. Tech. Courses**

|  |  |  |
| --- | --- | --- |
| **DISCIPLINE** | **SANCTIONED INTAKE** | **ADMISSIONS 2013-14** |
| Chemical Engineering | 77 | 51 |
| Civil Engineering | 123 | 98 |
| Computer Science Engineering | 62 | 55 |
| Electrical Engineering | 77 | 73 |
| Electronics and Communication Engineering | 77 | 68 |
| Information Technology | 62 | 45 |
| Mechanical Engineering | 77 | 67 |
| Metallurgical Engineering | 77 | 53 |
| Total | 632 | 599 |

**3.1.2. M. Tech. Courses**

|  |  |  |
| --- | --- | --- |
| **DISCIPLINE** | **INTAKE** | **ADMISSIONS 2013-14** |
| Water Resources Engineering  (Civil Engineering Department) | 18 | 07 |
| Structural Engineering  (Civil Engineering Department) | 25 | 18 |
| Communication and Information Technology  (Electronics and Comm. Engineering) | 25 | 17 |
| Mechanical System Design  (Mechanical Engineering) | 25 | 19 |
| Total | 93 | 61 |

**3.1.3. M. Phil Programmes**

**3.1.4. Ph.D. Programmes**

3.2 . COURSE WISE ENROLMENT WITH CATEGORY / GENDER BREAK-UP

**3.2.1. Seat Matrix- B.Tech Level 2013-14**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **\* B R A N C H E S** | | | | | | | | | **Quota** |
| **Civil** | **Mech** | **Elect** | **E&C** | **Chem** | **M .MT** | **CSE** | **IT** | **Total** |
| **OP 40**  **SC -7**  **ST 4**  **OBC- 10** | **OP - 25**  **SC -5**  **ST -2**  **OBC- 7** | **OP 24**  **OP(ph )-1**  **SC -4**  **SC(ph )-1**  **ST -2**  **OBC -7** | **OP -23**  **OP(ph ) -2**  **SC -5**  **ST -2**  **OBC 6** | **OP -22**  **OP(ph)-1**  **SC -5**  **ST -2**  **OBC -7** | **OP -24**  **OP(ph)-1**  **SC -4**  **ST -3**  **OBC -6** | **OP- 18**  **OP(ph)- 2**  **SC -3**  **SC(ph) -1**  **ST -2**  **OBC 4**  **OBC(ph)-1** | **OP -19**  **OP(ph) -1**  **SC -4**  **ST -2**  **OBC -4**  **OBC(ph )-1** | **OP - 197**  **OP(ph )-8**  **SC -37**  **SC(ph )-2**  **ST -19**  **OBC -51**  **OBC(ph)-2** | **J&K** |
| **OP -38**  **OP(ph)-1**  **S.C -8**  **S.T -4**  **OB C-11** | **OP -25**  **S.C -4**  **S.T -3**  **OBC -6** | **OP -24**  **OP(ph ) -1**  **S.C -4**  **S.T -3**  **OBC -5**  **OBC(ph)-1** | **OP -24**  **OP(ph) -1**  **S.C -4**  **S.T -2**  **ST(ph )-1**  **OBC -5**  **OBC(ph)-2** | **OP -24**  **OP(ph) -1**  **S.C -4**  **ST -3**  **OBC -6** | **OP -25**  **S.C -5**  **ST -2**  **OBC - 7** | **OP -18**  **OP(ph )-2**  **S.C -3**  **SC(ph) -1**  **S.T -2**  **OBC -5** | **OP -18**  **OP(ph) -2**  **S.C -4**  **ST -2**  **OBC 5** | **OP -196**  **OP(ph )-8**  **SC -36**  **SC(ph) -1**  **ST -21**  **ST(ph) -1**  **OBC -50**  **OBC(ph) -3** | **ALL India** |
| **123** | **77** | **77** | **77** | **77** | **77** | **62** | **62** | **632** | **Total** |

**3.2.2 Students enrollment –Category wise**

**B. Tech**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **ADMISSION MADE** | | | | | | | |
| **Year** | **Batch** | **OP** | **SC** | **ST** | **OBC** | **Total** |
|  |  |  |  |  |  |  |
| 2010 | Civil | 73 | 15 | 08 | 27 | 123 |
|  | ELE | 48 | 08 | 05 | 16 | 77 |
|  | ECE | 46 | 09 | 04 | 18 | 77 |
|  | Chem. | 35 | 09 | 05 | 12 | 61 |
|  | Mech. | 50 | 09 | 05 | 13 | 77 |
|  | Met. | 28 | 07 | 04 | 09 | 48 |
|  | C. Sc. | 33 | 05 | 04 | 13 | 55 |
|  | I.T. | 30 | 05 | 03 | 10 | 48 |
|  |  | **343** | **67** | **38** | **118** |  |
| 2011 | Civil | 79 | 15 | 08 | 21 | 123 |
|  | ELE | 50 | 08 | 05 | 13 | 76 |
|  | ECE | 50 | 09 | 04 | 13 | 76 |
|  | Chem. | 50 | 09 | 05 | 13 | 77 |
|  | Mech. | 50 | 09 | 05 | 13 | 77 |
|  | Met. | 46 | 08 | 05 | 07 | 66 |
|  | C. Sc. | 40 | 07 | 04 | 09 | 60 |
|  | I.T. | 40 | 07 | 04 | 09 | 60 |
|  |  | **405** | **72** | **40** | **98** |  |
| 2012 | Civil | 79 | 15 | 08 | 21 | 123 |
|  | ELE | 50 | 09 | 05 | 13 | 77 |
|  | ECE | 48 | 09 | 05 | 13 | 77 |
|  | Chem | 45 | 07 | 05 | 11 | 68 |
|  | Mech. | 50 | 09 | 05 | 12 | 77 |
|  | Met. | 50 | 06 | 03 | 12 | 71 |
|  | C. Sc. | 40 | 08 | 04 | 11 | 63 |
|  | I.T. | 40 | 07 | 04 | 09 | 60 |
|  |  | **402** | **70** | **39** | **102** |  |
| 2013 | Civil | **38** | **14** | **07** | **39** | 98 |
|  | ELE | **29** | **11** | **06** | **27** | 73 |
|  | ECE | **28** | **10** | **05** | **25** | 68 |
|  | Chem | **23** | **12** | **04** | **12** | 51 |
|  | Mech. | **29** | **10** | **06** | **22** | 67 |
|  | Met. | **29** | **10** | **06** | **08** | 53 |
|  | C. Sc. | **25** | **07** | **05** | **18** | 55 |
|  | I.T. | **23** | **08** | **06** | **08** | 45 |
|  |  | **224** | **82** | **45** | **159** | 510 |
| G.Total |  | 1374 | 291 | 162 | 477 | 2244 |

Admission Statistics - B.Tech. (04- years)

**M. Tech**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Admission Made** | | | | | | |
| **Year** | **Programme** | **OP** | **SC/ST** | **Sponsored** | **OBC** | **Total** |
| 2011 | Water Resource Engineering | 05 | - | - | - | 05 |
|  | Mechanical System Design | 12 | 03 | - | - | 15 |
|  | Comm. & Information Tech. | 12 | 01 | - | 03 | 16 |
|  | Structural Engineering | 12 | - | - | - | 12 |
| 2012 | Water Resource Engineering | 06 | - | 02 | - | 08 |
|  | Mechanical System Design | 12 | 03 | 02 | 02 | 19 |
|  | Comm. & Information Tech. | 13 | 03 | 02 | 03 | 21 |
|  | Structural Engineering | 13 | 02 | - | 03 | 18 |
| 2013 | Water Resource Engineering | 06 | - | - | 02 | 08 |
|  | Mechanical System Design | 09 | 05 | 04 | 03 | 21 |
|  | Structural Engineering | 11 | 02 | 02 | 01 | 16 |
|  | Industrial Tribology and Maintenance Management | 13 | 01 | - | 05 | 19 |
|  | Communication Information Technology | 11 | 03 | 02 | 04 | 20 |
|  | Electric Power & Energy System | 10 | 02 | 05 | 02 | 19 |
| Total | | 60 | 13 | 13 | 17 | 103 |

**3.2.3. Students’ Enrolment Gender wise**

**a) B. Tech**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Batch | CIVIL | | ELE | | ECE | | CHEM | | MECH | | METT | | CSE | | IT | |
|  | M | F | M | F | M | F | M | F | M | F | M | F | M | F | M | F |
| 2010 | 114 | 07 | 67 | 6 | 61 | 11 | 52 | 5 | 76 | - | 32 | 11 | 48 | 5 | 38 | 9 |
| 2011 | 118 | 05 | 66 | 10 | 66 | 10 | 65 | 10 | 76 | 1 | 52 | 5 | 51 | 8 | 48 | 11 |
| 2012 | 116 | 05 | 74 | 02 | 61 | 11 | 60 | 08 | 74 | - | 62 | 02 | 54 | 08 | 54 | 04 |
| 2013 | 90 | 08 | 67 | 06 | 59 | 09 | 44 | 07 | 63 | 04 | 49 | 04 | 45 | 10 | 42 | 03 |
| Total | **438** | **25** | **274** | **24** | **247** | **41** | **221** | **30** | **289** | **5** | **195** | **22** | **198** | **31** | **182** | **27** |

**b) M. Tech**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Batch** | **Communication and Inf.Technology** | | **Mechanical System Design** | | **Structural Engineering** | | **Water Resources**  **Engineering** | |
|  | M | F | M | F | M | F | M | F |
| 2012 | 21 | - | 18 | 01 | 17 | 01 | 06 | 02 |
| 2013 | 12 | 08 | 20 | 01 | 14 | 02 | 06 | 02 |
| Total | **33** | **08** | **38** | **2** | **31** | **3** | **12** | 4 |

**c) M. Phil** **(Faculty of Science)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **Chemistry** | | **Physics** | | **Math** | |
| **Batch** | **M** | **F** | **M** | **F** | **M** | **F** |
| 2010 | 1 | - | - | - | - | - |
| 2011 | - | 02 | - | - | - | - |
| 2012 | 03 | 02 | - | - | - | - |
| 2013 | - | 01 | - | - | - | - |
| **Total** | **04** | **05** | **-** | **-** | **-** | - |

M.Phil. Enrolment Gender wise (Faculty of Science)

**d) Ph.D. (Faculty of Engineering)**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Year** | **ECE** | | **ELE** | | **CIT** | | **MECH** | |
|  | M | F | M | F | M | F | M | F |
| 2010 | 03 | - | 1 | - | 01 | 01 | - | - |
| 2011 | 02 | 01 | - | - | - | - | 6 | - |
| 2012 | - | 01 | - | - | 06 | 02 | 10 | - |

**Ph.D. admission during 2013-14**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Sr.No.** | | **Courses/Branches offered)** | **Actual Admissions** | | | | | | | | | | |
| **Male (A)** | | | | | **Female (B)** | | | | | |
| **OM** | **SC** | **ST** | **OBC** | **Total** | **OM** | **SC** | **ST** | **OBC** | **Total** | **Grand Total**  **(A+B)** |
| **Engineering Stream(E)** | | | | | | | | | | | | | |
| **1.** | **Chemical Engineering** | | **02** | **-** | **-** | **-** | **02** | **-** | **-** | **-** | **-** | **-** | **02** |
| **2.** | **Civil Engineering** | | **07** | **-** | **-** | **-** | **07** | **02** | **-** | **-** | **-** | **02** | **09** |
| **3.** | **Computer Science & Engineering** | | **03** | **-** | **-** | **-** | **03** | **01** | **-** | **-** | **-** | **01** | **04** |
| **4.** | **Electrical Engineering** | | **05** | **-** | **-** | **-** | **05** | **-** | **-** | **-** | **-** | **-** | **05** |
| **5.** | **Electronics & Communication Engineering** | | **07** | **-** | **-** | **02** | **09** | **12** | **-** | **-** | **-** | **12** | **21** |
| **6.** | **Information Technology** | | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** |
| **7.** | **Mechanical Engineering** | | **21** | **-** | **-** | **01** | **22** | **02** | **-** | **-** | **-** | **02** | **24** |
| **8.** | **Metallurgical Engineering** | |  |  |  |  |  |  |  |  |  |  |  |
|  | **Total(E)** | | **45** |  |  | **03** | **48** | **17** | **-** | **-** | **-** | **17** | **65** |
| **Science Stream(S)** | | | | | | | | | | | | | |
| **1.** | **Chemistry** | | **11** | **-** | **-** | **-** | **11** | **04** | **-** | **-** | **-** | **04** | **15** |
| **2.** | **Mathematics** | | **05** | **-** | **-** | **-** | **05** | **02** | **-** | **-** | **-** | **02** | **07** |
| **3.** | **Physics** | | **13** | **-** | **-** | **-** | **13** | **-** | **-** | **-** | **-** | **-** | **13** |
| **4.** | **Humanities & Social Sciences** | | **-** | **-** | **-** | **-** | **-** | **01** | **-** | **-** | **-** | **01** | **01** |
|  | **Total(S)** | | **29** | **-** | **-** | **-** | **29** | **07** | **-** | **-** | **-** | **07** | **36** |
|  | **Total(E+S)** | | **74** | **-** | **-** | **03** | **77** | **24** | **-** | **-** | **-** | **24** | **101** |

*Ph.D. enrolment Gender wise (Faculty of Engineering)*

**e) Ph.D. (Faculty of Science)**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Batch** | **Physics** | | **Chemistry** | | **Math** | | **HSS** | |
|  | M | F | M | F | M | F | M | F |
| 2010 | - | - | 1 | - | 1 | - | - | - |
| 2011 | - | - | 2 | - | 3 | 1 | - | - |
| 2012 | 04 | - | 12 | - | 1 | - | - | - |
| 2013 | 13 | - | 11 | 4 | 5 | 2 | - | 1 |

*Ph.D. enrolment Gender wise (Faculty of Science)*

3.3. STUDENTS’ TOTAL STRENGTH

**3.3.1. Strength in Undergraduate Programme**

The below mentioned statement shows the student’s strength with each category in this Institute:-

OM 1374

SC 291

ST 162

OBC 477

Total: 2244

**3.3.2. Strength in M.Tech. Programme**

OM 60

SC/ST 13

Sponsored 13

OBC 17

Total  **103**

**3.3.3. M.Phil. Programme - 01**

**3.3.4. Ph.D. Programme - 101**

**4.0. DEPARTMENTS AND CENTRES**

The Institute has eight engineering departments, four science and allied departments and the three Centres. The departments are :

Civil Engineering , Mechanical Engineering, Electrical Engineering, Electronics and Communication Engineering, Chemical Engineering, Metallurgical and Materials Engineering, Computer Sciences Engineering, and Information Technology Mathematics, Chemistry, Physics and Social Sciences. The three Centres are:

**Water Resources and Management Centre, Maintenance Engineering Centre and Computer Services Centre**

**4.1 DEPARTMENTS**

**4.1.1 DEPARTMENT OF CIVIL ENGINEERING**

**Head: Prof. A. R. Dar**

**Introduction**

The department of Civil Engineering is one of the earliest departments at the commencement of the Institute in 1960. Over the years, the department has progressed both in infrastructure facilities and faculty. The department has highly qualified and experienced faculty, supported by experienced technical staff and well equipped laboratories attached to different divisions. The department offers quality teaching at the undergraduate and post-graduate levels to empower students to meet the technological needs and socio-economic challenges of the 21st century. The department also offers Ph.D. programs and basic research activities are carried out in the different disciplines of Civil Engineering. The department takes consultancy assignments from industry in the areas of Geotechnical Engineering, Transportation Engineering, Structural Engineering, Water Resources Engineering, Surveying etc.

**Faculty**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S.No.** | **Name** | **Designation** | **Qualification** | **Area of specialization** |
| 1 | Dr.A.R.Dar | Professor and Head | Ph.D | Water Resources Engineering |
| 2 | Dr.M.A.Lone | Professor | Ph.D | Structural Engineering |
| 3 | Dr.S.R.Shah | Professor | Ph.D | Water Resources Engineering |
| 4 | Dr.J.A.Bhat | Professor | Ph.D | Structural Engineering |
| 5 | Dr.M.A.Ahanger | Professor | Ph.D | Water Resources Engineering |
| 6 | Dr.A.Q.Dar | Professor | Ph.D | Water Resources Engineering |
| 7 | Dr,M.S.Mir | Professor | Ph.D | Transportation Engineering |
| 8 | Dr.M.A.Tantary | Professor | Ph.D | Structural Engineering |
| 9 | Er. F.A.Mir | Associate Professor | M.Tech. | Geotechnical Engineering |
| 10 | Dr.J.M.Banday | Associate Professor | Ph.D | Structural Engineering |
| 11 | Dr.J.A.Naqash | Associate Professor | Ph.D | Structural Engineering |
| 12 | Er.Danish Ahmad | Associate Professor | M.E | Water Resources Engineering |
| 13 | Dr.M.Y.Shah | Associate Professor | Ph.D | Geotechnical Engineering |
| 14 | Dr.B.A.Mir | Assistant Professor | Ph.D | Geotechnical Engineering |
| 15 | Er. A. A. Masoodi | Assistant Professor | M.Tech. | Structural Engineering |
| 16 | Er.R.R.Mir | Assistant Professor | M.E. | Water Resources Engineering |
| 17 | Dr.S.K.Bukhari | Assistant Professor | Ph.D | Geology |
|  | **Number of Faculty Members engaged on Contractual basis = 19** | | | |

**01. Purchases Made:**

|  |  |  |  |
| --- | --- | --- | --- |
| **S. No.** | **Name of the equipment/item** | **Date of Purchase** | **Amount of Purchase** |
| 01. | Apparatus for Bitumen thin film oven test (1no) | 13-08-2014 | 1,25,000.00 |
| 02. | Benkelman Beam Apparatus(1no) | 13-08-2014 | 78,000.00 |
| 03. | Light Weight Deflectometer, LWD (1no) with  Bitumen Viscosity Testing Equipment (1no)  Digi Level Camber Gauge (1no)  Digital Infrared Thermometer (1no) | 13-08-2014 | 13,30,000.00 |
| 04. | Palm Top GPS Set  for vehicular position recording (2no) | 13-08-2014 | 48,000.00 |
| 05. | Rebound Hammer | October, 2014 | Rs.1,80,000/= |
| 06. | Electronic Digital Top Balance (Small)  Capacity: 1kg x .01g (1no) | 09-12-2014 | 13,620.00 |
| 07. | Hydraulic Flume | January, 2015 | Rs.97,80,772/= |

**R&D Work:**

**02. Papers Published:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Sr. No.** | **Name of the Staff Member** | **Title of the paper** | **International Journal/ Conference etc. where published** | **Date of Publishment** |
| 01. | Dr. M.S. Mir | Traffic Analysis of Srinagar City | The 11th International Conference on Transportation Planning and Implementation Methodologies for Developing Countries (TPMDC) 2014 | 10-12 Dec, 2014 |
| 02. | Dr. J. A. Naqash | Accelerating Admixture – influence on Properties of Concrete | 2nd International Conference on Advance Trends in Engg. & Technology ARYA college of Engienering & Information Technology, Jaipur | 18-19th April, 2014 |
| 03. | Dr. B A Mir | Effect of high & low calcium fly ash on compressibility & strength behavior of black cotton soil | *International Journal of Geotechnical Engineering*, Maney Publishing, Inc., UK | Under Review |
| Some Studies on Geotechnical Characterization of Dredged Soil For Sustainable Development of Dal Lake and Environmental Restoration | International Journal of Technical Research and Applications:  **e**-ISSN: 2320-8163 | PP. 04-09, Special Issue 12, Jan-Feb 2015 |
| Geosynthetics Applications In Highway Construction In J&K: Sustainable Infrastructure Development (**BEST PARER AWARD)** | Journal on Structural Engineering: State-of-the- art and State -of- Practice in Structural Engg. | pp. 1-9, Vol. 3(3), Sept. –Nov. 2014. |
| Model Studies on SCP Reinforced Reconstituted Kaolin Clay (**BEST PARER AWARD)** | *International Journal of Civil and Structural Engineering– IJCSE*  © IRED, USA | PP. 27-31 Vol. 1, No. 3  Sept. 2014 |
| Comparative Study on Load-Settlement Behavior of Shallow Footings on Dredged Material underlain by a Rigid Base | *World Research Journal of Civil Engineering* (WRJCLE)**, Impact Factor Value:** 6.53 (2012) | pp. 34-38, Volume: 3   Issue: 1  July 2014 |
| Permeability and Consolidation Behavior of Composite Ground Reinforced with Sand Columns | *International Journal of Geotechnique, Construction Materials and Environment* (GEOMATE) Japan | pp. 832-839, Vol. 6, No. 2 (Sl. No. 12), June 2014 |
| On Innovative Technique for Stabilization of Hilly Slopes in J&K: A Review | *Proceedings of* *6TH International Geotechnical Symposium on Disaster Mitigation in Special Geoenvironmental Conditions,* , IIT Madras, Chennai, India | pp. 513-516,  Paper ID: 7-13, January 21-23, 2015 |
| Some Studies on Geotechnical characterization of Dredged Soil for Sustainable Development of Dal Lake and Environmental Restoration (**BEST PARER AWARD)** | *Proceedings of International Conference on Researches in Engineering & Technology (ICRET-2015), Bangkok, Thailand* | pp. 1-6,  Paper ID:  GIC I4 1305 1,  Jan. 3-4, 2015 |
| Experimental Study on Some Physical and Mechanical Properties of Bemina Soil, Srinagar | *Proceedings of International Conference on Sustainable Civil Infrastructure (ICSCI-2014)* © ASCE India Section, Oct.17–18, 2014, Hitex, Hyderabad, Telangana, India | pp. 472-481, Vol. 1, Oct. 2014 |
| Strength Behaviour of Clayey Soil Reinforced with Human Hair as a Natural Fibre | *Proceedings of National Conference ”GEPSID”* held on October 11-12, 2014, by GNDEC Ludhiana, Punjab, India | pp. 220-228, Vol. 1, Oct. 2014 |
|  | Effect of Baggasse Ash Addition as Mixture on Some Properties of Silty Soil | *Proceedings of National Conference ”GEPSID”* held on October 11-12, 2014, by GNDEC Ludhiana, Punjab, India | pp. 252-258, Vol. 1, Oct. 2014 |
|  | Effect of Pine Needle Stabilization on Strength Behaviour of Clayey Soil | *Proceedings of National Conference ”GEPSID”* held on October 11-12, 2014, by GNDEC Ludhiana, Punjab, India | pp. 543-548, Vol. 1, Oct. 2014 |

**03. Programmes attended (Conferences/Courses/Trainings):**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S. No.** | **Name of the Staff Member** | **Name o the programme Attended** | **Institute where Attended** | **Date** |
| 01. | Dr. J. M. Banday | International Conference on advances in Sustainability of Materials and Environment (CASME,14) | St. Xavier’s Catholic College of Engg. Chunkankadal, Nagercoil. | 10-11 April, 2014 |
| 3rd International conference on Sustainable innovative Techniques in Architecture Civil & Environment Engineering. | *JNU, New Delhi* | 2 6-27 April, 2014 |
| International Conference on Civil Engineering ICCE- 2014) | Vijaya Vittala institute of Technology, Bengaluru | August 21-23 , 2014. |
| International Conference on Research into Design (ICORD-2015) | IISC Bangalore | 07-09 January, 2015. |
| 02. | Dr. A. Q. Dar | Present paper in an international Conference at MTSWRM” | IIT Hyderabad | 28-29 Dec, 2014 |
| 03. | Dr. B A Mir | Presented paper in the *International Conference on Researches in Engineering & Technology (ICRET-2015),* | *Bangkok, Thailand* | Jan. 3-4, 2015 |
| Presented paper in the *National Conference ”GEPSID”* held on by | GNDEC Ludhiana, Punjab, India | October 11-12, 2014, |
| 04. | Dr. M. Y. Shah | Soil Structure Interaction computer Applications and Materials Models | IIT Gandhinagar Ahmadabad | 19-23 Jan, 2015 |
| Seismic Requalification of Pile Supported Structures | IIT Guwahati | 7-9 Jan, 2015 |
| 05. | Dr. M. S. Mir | 11th international conference on Transportation Planning and Implementation Methodologies for Developing Countries (TPMDC) 2014 | IIT, Bombay | Dec 10-12, 2014 |
| 06. | Dr. j. A. Naqash | International Conference on Materials Mechanics and Management (IMMM2014) | Trivandrum, Kerala | 17-19 Dec, 2014 |

04. **Any other Activity/Achievement with details:**

01.Prof. A. R. Dar invited by Chairman UPSC, New Delhi during January, 2015 as one of the experts for the conduct of personality test of Engineering shortlisted for Assistant Engineer posts through UPSC.

02. The department started two M. Tech Programmes in the Specialization of “TRANSPORTATION ENGINEERING & PLANNING” and Geotechnical Engineering from July 2014.

03. Developed Traffic Engineering Lab which did not exist in the department. Created space for the lab and, to start with, processed purchase of routine equipment for the same. The purchase of equipment for the lab is under process. Orders have already been placed.

1. **Dr. B. A. Mir received the Best Paper Award**  **from** **;**

* IRED USA during International Conference on Advances in Engineering & Technology (ICAET-2014) May, 2014, India.
* Indian Geotechnical Society Ludhiana during 4TH Terzaghi Oration Lecture (GEPSID 2014) Oct. 2014, India.
* Global Researches Development & Services during International Conference on Researches in Engineering & Technology (ICRET-2015), Jan. 2015, Bangkok, Thailand.
* **Dr. B.A. Mir has been the Chair/Session Leader** **for**;
* Technical session on in International Conference on Advances in Engineering & Technology (ICAET-2014) organized by Institute of Engineers & Doctors, USA in Roorkee, India.
* Technical session on Conf. on Geotechnical Engineering Practice and Sustainable Infrastructure Development (GEPSID-2014), India.
* Plenary session on International Conf on Researches in Engineering & Technology in Bangkok, Thailand, Jan. 4, 2015.

**Dr. B.A. Mir has delivered Key Note Lecture** in International Conf on Researches in Engineering & Technology in Bangkok, Thailand, Jan. 4, 2015.

**4.1.2 DEPARTMENT OF MECHANICAL ENGINEERING**

**Head: Prof. M. F. Wani**

**Introduction**

Established in 1963, the Department of Mechanical engineering has an intake capacity of 77 in B. Tech and 18 in M. Tech (Mechanical System Design).  The students are admitted to B. Tech. on the basis of AIEEE. The curriculum includes a diverse range of the subjects. The department has 12 labs to cater to the needs of the students. The real strength of the department lies in its highly qualified and experienced faculty. Most of the outgoing students are recruited by reputed organizations during campus placement every year. The department is vigorously working on the starting on 2nd M.Tech. programme in Industrial Tribiology & maintenance Engg.” From 2013 se[ssion.

**Faculty**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S. No** | **Name of Faculty Member** | **Designation** | **Qualification** | **Research Areas** |
| 1. | Prof.  (Dr.)M F Wani | HOD | Ph.D | Tribology, |
| 2. | Dr. Rajat Gupta | Professor | Ph.D | Fluid Mechanics, |
| 3. | Prof. (Dr)  I K Pandita | Professor | Ph.D. | Structural dynamics, design |
| 4. | Dr. G.A. Harmain | Professor | Ph.D., | Wave Motion |
| 5. | Dr. M. Marouf Wani | Professor | Ph.D | Combustion, Alternative fuels, Emission control |
| 6. | Dr. N. A. Sheikh | Professor | Ph.D | Aircraft wing vibration, Smart Structures |
| 7. | Mr. Babar Ahmad | Professor | Ph.D. | MEMS, Ultrasonic transducer |
| 8. | Mr. Adnan Qayoum | Professor | Ph.D. | Heat Transfer |
| 9. | Mr. Shahid Saleem | Assistant Professor | M. Tech | Tribology of brake systems, |
| 10. | Mr. Saad Parvez | Assistant Professor | M. Tech | Manufacturing strategy, |
| 11. | Mr. Gulam Muhammad | Assistant Professor | M. Tech | Mechatronics |
| 12. | Mr.Muhammad Hanief | Assistant Professor | M. Tech | Tribology |
| 13. | Mr. M. S. Charoo | Assistant Professor | M. Tech | Tribology |
| 14. | Mr. M. Mursaleen | Assistant Professor | M. Tech | Smart structures |
|  | **Number of Faculty Members engaged on Contractual basis = 06** | | | |

1. PURCHASES MADE:

|  |  |  |  |
| --- | --- | --- | --- |
| **S. No.** | **NAME OF EQUIPMENT** | **DATE OF PURCHASE** | **AMOUNT OF PURCHASE** |
| 1. | Four ball tester | 12.6.2014 | 16,61,698/- |
| 2. | Petrol Engine generator for developing test rig for I C Engines Laboratory | 4.6.2014 | Rs 74,786/- |
| 3. | PLC Training kit | June,2014 | 3,,79,000/- |
| 4. | Distance Displacement Scanner | June,2014 | 2,0,5000//- |
| 5. | 3D Universal profiler | June,2014 | 58,91,836/- |
| 6 | Nano Tribometer | June,2014 | 43,73,433/- |
| 8 | Total amount |  | **12585753.00** |

1. PAPERS PUBLISHED:

1. **Journal papers**

|  |  |  |  |
| --- | --- | --- | --- |
| **NAME OF STAFF MEMBER** | **TITLE OF PAPER** | **CONFERENCE / JOURNAL etc. WHERE PUBLISHED** | **DATE OF PUBLISHING** |
| Najar, F.A. and **Harmain, G.A**  Farooq Ahmad Najar and **G. A. Harmain**  S.A.Krishnan, Ankit Baranwal, A.Moitra,G. Sasikala,S.K. Albert,A.K. Bhaduri,**G.A. Harmain**,T. Jayakumar,E. Rajendra Kumar | Thermal effects for conventional and water-cooled thrust bearing using finite difference method: comparative analysis’  Numerical Investigation of Pressure Profile in Hydrodynamic Lubrication Thrust Bearing,”  Assessment of Deformation Field during High Strain Rate Tensile Tests of RAFM Steel Using DIC Technique | Int. J. Precision Technology (**in press**)  International Scholarly Research Notices,  vol. 2014, Article ID 157615, 8 pages, 2014. doi:10.1155/2014/157615  Elsevier Procedia Engineering 86 ( 2014 131 – 138 | 2014  2014 |
| A.Rahman, M.S.Charoo and R.Jayaganthan | Structural, Optical and photo catalytic properties of zinc aluminates spiral nanoparticles | Materials technology: Advanced performance Materials 2015, vol 30 No. 3 168-174 | 2015 |

1. **PROGRAMMES ATTENDED/CONDUCTED (CONFERENCES / COURSES/TRAININGS):**

|  |  |  |  |
| --- | --- | --- | --- |
| NAME OF STAFF MEMBER | NAME OF PROGRAMME ATTENDED | INSTITUE WHERE ATTENDED/CONDUCTED | DATE |
| Farooq Ahmad Najar and **G. A. Harmain**  Azhar Jameel and **G.A.Harmain**  M.F.Wani  -Do-  -Do-  Farooq Ahmad Najar and **G. A. Harmain**  Azhar Jameel and G.A. Harmain  Sheikh N.A  Shahid Saleem  -Do-  Adnan Qayoum  -Do-    -Do-  Mohamad Hanief | ’Preliminary study of hydrodynamic tilting pad thrust bearing: operating parameters’  Operating parameters  Modeling and simulation of fatigue crack growth using XFEM.  ICTFCM  NC Tribology  Delivered Invited talk at National Conference on Tribology.  ’Novel approach towards thrust bearing pad cooling’’  EFGM  Simulation of large sliding frictional contact problems  Three day research programme  UGC Workshop on “Texture of Materials”  Texture of Materials  Influence of Repeated Permeable Ribs for Heat Transfer enhancement in a Two pass Square Channel,  Investigation of Double Orifice Systhetic Actuator on Laminar Boundary Layer for Heat Transfer Enhancement.  Influence of Repeated Permeable Ribs on the Thermal Performance for flow in a Heated Duct of Variable Aspect Ratio.    Mathematical Modeling, Met lab and their Application in Engg. | ’’Int. Conf*.* onIndustrial, Mechanical and Production Engineering: Advancements and Current TrendsDepartment of Mechanical Engineering, MANIT, Bhopal  59-istam-sm-fp-163 proceedings of 59th congress of Indian Society for theoretical and Applied Mechanics (ISTAM)  Alliance University, Anekal, Bangalore-562106, Karnataka, India  Sand Deigo, USA  Bangalore, India  Bangalore, India  ASME 2014 Gas Turbine India.  No.GTINDIA2014-8165, pp. V001T06A004;8pages doi:  10.1115/GTINDIA2014-  8165  59-istam-sm-fp-16 Proceedings of 59th Congress of ISTAM  Alliance University, Anekal, Bangalor-562106, Karnataka, India  NAL, Bangalore  Deptt of Materials Engg, IISc, Bangalore  Presented in 5th International Confer3nce on Fluid Mechanics and Fluid power, IIT Kanpur.  Proceeded to attend W/shop at IISC, Bangalore  Presented in 5th International Conference on Fluid Mechanics and Fluid power, IIT Kanpur.  Presented in 5th International Conference on Fluid Mechanics and Fluid power, IIT Kanpur  MNIT Jaipur | November 27-29, 2014    Dec.17-20, 2014  26th April to 2nd May,2014  December, 2015  2014  Dec.2014  Dec.17-20, 2014  3rd- 6th Dec.2014  15th- 19th Feb 2015  Dec 12-14,2014  15-19 Feb.2015  Dec. 12-14, 2014  Dec.12-14,2014  19-23, Jan 2015 |
| Sheikh Ghulam Mohamad | Int. conf. on Tissue Engg. | Anna University,Chennai | 5 Feb. – 7th Feb.2015 |
| M.S.Charoo | STC on open source Technology | Computer Science Department NITTTR,Chandigarh | 25-29 May,2014 |
| -Do- | Mathematical Modeling, MATLAB and their application in Engineering | MNIT, Jaipur | 19-23 Jan,2015 |

****

4.1.3. **DEPARTMENT OF ELECTRICAL ENGINEERING**

**Head: Prof. Aijaz Ahmad**

**Introduction**

The Department of Electrical Engineering is now 52 years old. For many years, the Department offered courses in both Electrical Engineering and Electronics & Communications Engineering. In 1984, the Department was bifurcated into two Departments viz Electrical Engineering and Electronics & Communications Engineering. The history since then has been one of continuous expansion and modernization. The Department has contributed and is contributing in several ways to the growth of Electrical Engineering, technology and industry in the Country.

**Faculty**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S.No** | **Name of Faculty** | **Designation** | **Qualification** | **Specialization** |
| 1. | Dr. Aijaz Ahmad | Professor & HOD | Ph. D | Power System Optimization, |
| 2 | Dr. M. D. Mufti | Professor | Ph. D | Intelligent Control, of Electrical Energy Systems |
| 3. | Dr. S. A. Lone | Professor | Ph. D | Stand Alone Power Systems Control |
| 4. | Dr. A.H. Bhat | Associate Professor | Ph. D | Power Electronics, |
| 5. | S. J. Iqbal | Asstt. Professor | M.Tech. | Intelligent Control |
| 6. | M. A. Bazaz | Asstt. Professor | Ph.D. | Control & Automation |
|  | **Number of Faculty Members engaged on Contractual basis = 07** | | | |

1. Purchases Made from 01-04-2014 to 31-03-2015

|  |  |  |  |
| --- | --- | --- | --- |
| S.No | Name of Equipment | Date of Purchase | Amount of Purchase  (amount in Rs.) |
| 1 | Fluke Make Single Phase Power Quality Analyzer | 29-05-2014 | 221749 |
| 2 | Acer Computer (Received from CPU) | 05-08-2014 | 1909215 |
| 3 | PID Control System | 28-05-2014 | 11865 |
| 4 | Inverted Pendulam | 28-05-2014 | 401150 |
| 5 | 4 Channel Tekronix Oscilloscope | 28-05-2014 | 239820 |
| 6 | Hay’s Bridge | 28-05-2014 | 10848 |
| 7 | Function Generator | 28-05-2014 | 27300 |
| 8 | 2 Channel Digital Oscilloscope | 28-05-2014 | 234360 |
| 9 | LCR Q Meter | 06-08-2014 | 40215 |
| 10 | Regulated Power Supply | 06-06-2014 | 123396 |
| 11 | PLC Based Process Control | 06-08-2014 | 113000 |
| 12 | Anderson Brdge | 08-07-2014 | 8200 |
| 13 | Digital Multimer | 08-07-2014 | 22000 |
| 14 | Digital Oscilloscope | 08-07-2014 | 51040 |
| 15 | Maxwell Bridge | 08-07-2014 | 8200 |
| 16 | Single Phase Brdige | 08-07-2014 | 14383 |
| 17 | `8085 Microprocessor Kit | 08-07-2014 | 149820 |
| 18 | Earth Resistance | 08-07-2014 | 14560 |
| 19 | Sigma DC Converter | 23-05-2014 | 34500 |
| 20 | Sigma 3 phase | 23-05-2014 | 11000 |
| 21 | Three Phase Fullwave | 23-05-2014 | 14000 |
| 22 | SCR Triggering Circuit | 23-05-2014 | 16000 |
| 23 | Sigma AD 202 Isolation | 23-05-2014 | 12000 |
| 24 | Type 0 Control System | 23-05-2014 | 5500 |
| 25 | Type 1 Control System | 23-05-2014 | 5500 |
| 26 | Type 2 Control System | 23-05-2014 | 5500 |
| 27 | Test single generator | 23-05-2014 | 8500 |
| 28 | PIG Control | 23-05-2014 | 9800 |
| 29 | Lead Lag Network | 23-05-2014 | 5500 |
| 30 | Potential Meter | 23-05-2014 | 7000 |
| 31 | Tektronix Current Probe | 23-05-2014 | 60000 |
| 32 | Digital Meter | 23-05-2014 | 12000 |
| 33 | Lutron Digital Stroboscope | 23-05-2014 | 24000 |
| 34 | Single Phase Inductive Load | 23-05-2014 | 18500 |
| 35 | 8086 Microprocessor Kit | 23-05-2014 | 47500 |
| 37 | 3 Phase Energy Meter | 23-05-2014 | 7000 |
| 38 | Laser Jet Printer | 28-10-2014 | 7900 |
| 39 | Scan Jetflat | 28-10-2014 | 4300 |
| 40 | Scientific Power Analog Power Oscilloscope | 03-12-2014 | 113190 |
| 41 | ACE Kits 1103 Hardware | 17-10-2014 | 1477000 |

**R&D Work**

Papers Published.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| S.  No | Name of Staff Member | Title of the Paper | Conference / Journal etc where published | Date of Publishing |
| 1 | **Dr. A. H. Bhat**  Ms. TabishNazir | Performance investigation of a single phase unidirectional AC-DC Buck converter Fed DC Motor Drive | PIICON, 2014 IEEE Conference | November, 2014 |
| 2 | **Dr. A.H. Bhat,**  Ms. Anha Farooq | Performance evaluation of three phase shunt Active Power Filter for Power Quality improvement | RDCAPE-2015 | January, 2015 |
| 3 | **Dr. A.H. Bhat**,  Dr. Nitin Langer | Performance evaluation of three phase neutral point clampedBio-directional rectifier for supply and load perturbations | IJEPES Elsevier | 2014 |
| 4 | **Dr. A.H. Bhat,**  Dr. Nitin Langer | Parameter plane synthesis and performance investigation  of a three phase three level bidirectional rectifier | IJEEPS | 2014 |
| 5 | **Dr. A.H. Bhat,**  Dr. Nitin Langer | Supply perturbations  Compensated control scheme for three phase neutral point clamped  Bi-directional rectifier | IET- Power Electronics | 2014 |
| 13 | **S. Hussain,**  **Dr. M. A. Bazaz** | **ANFIS Implementation on a Three Phase Vector Controlled Induction Motor with Efficiency Optimisation**”, | *IEEE International Conference on Circuits, Systems, Communication and Information Technology Applications (CSCITA)*, pp. 391-396, | 4-5 April 2014 |
| 14 | Hussain, S.;  **Dr. M. A. Bazaz** | "**Fuzzy based sliding mode control for vector controlled induction motor**," | *IEEE International Conference on Advances in Computing, Communications and Informatics (ICACCI),* pp.811-815, | 24-27 Sept. 2014 |
| 15 | S. Hussain,  Dr. M. A. Bazaz | “**Fuzzy Integrated Sliding Mode Controller for Vector Controlled PMSM**” | *6th IEEE Power India International Conference (PIICON),* | 5-7 Dec 2014 |
| 16 | S. Hussain,  **Dr. M. A. Bazaz** | “**Sensorless Control of PMSM using Extended Kalman Filter with Sliding Mode Controller**” | *2014 IEEE International Conference on Power Electronics, Drives And Energy Systems (PEDES),* | 16-19 Dec. 2014 |
| 17 | S. Hussain,  **Dr. M. A. Bazaz** | “**Review of Vector Control Strategies for Three Phase Induction Motor Drive**”, | *2015 IEEE International Conference on Recent development in Control, Automation And Power Engineering (RDCAPE)* | 12-13 March, 2015 |
| 21 | S.A Nahvi,  **Dr. M. A. Bazaz,**  Mashuq-un-Nabi | Fast Simulation of non-Linear dynamical systems for application in reduced order modelling | *Proc. 2014 European Control Conference pp 1092-1097 Strasbourg France* | June 2014 |
| 22 | S.A Nahvi,  **Dr. M. A. Bazaz,**Mashuq-un-Nabi,  S. Janardhanan | Approximate Snapshot-Ensemble Generation for Basis extraction in proper orthogonal decomposition | *Proc. third International Conference on advances in control & optimization of dynamical systems (ACODS-2014) pp 917-921* | 2014 |
| 23 | S.A Nahvi,  **Dr. M. A. Bazaz,**Mashuq-un-Nabi,  S. Janardhanan,  Mohammad Umar Rehman | Adaptive Parameter Space Sampling in Matrix Interpolatory PMOR | *2015 IEEE International Conference on recent development in Central Automation and Power Engineering (RDCAPE)* | 12-13 March, 2015 |

1. Programmes attended (Conferences / Courses / Trainings) from 01-04-2014 to 31-03-2015

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| S.No | Name of Staff Member | Name of the Programme Attended | Institute where attended | Date |
| 1 | Dr. Aijaz Ahmad | IEEE Authoring Workshop | IIT Delhi | 11-08-2014 |

1. Programmes Conducted ( Conferences / Courses / Trainings)

from 01-04-2013 to 31-03-2014: NIL

1. Any other activity during the year:

The Department is working on the Research Project entitled on “**APPLICATION OF INTELLEGENT CONTROL TO HYBRID WIND-DIESEL-SOLAR POWR SYSTEM” under the** supervision of Prof. M. D. Mufti (Principal Investigator), Dr. S. A. Lone & S. J. Iqbal (Investigators).

**4.1.4. DEPARTMENT OF ELECTRONICS & COMMUNICATIONENGINEERING**

**Head: Prof. G. M. Rather**

**Introduction**

The Department of Electronics & Communication Engineering was established in the year 1984.The department conducts a four (04) years under-graduate academic programme leading to the award of **B.Tech.** **Degree** in Electronics & Communication Engineering. In addition, the department started **M. Tech** **programme** in Communication & Information Technology in the year 2004.

Opportunity to do project work over a span of two semesters is provided to the students of B.Tech. to utilize their knowledge in several areas of Electronics, Communication and Computer Engineering. The students work either on design & fabrication of equipments of innovative nature or on other specific and relevant research topics as decided in consultation with the project advisor.

**Faculty:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S.No** | **Name** | **Designation** | **Qualification** | **Area of specialization** |
| 1 | Dr. A. H. Mir | Professor | Ph. D | Image Processing, Biomedical Engg |
| 2 | Dr. G. M. Rather | Professor & HOD | Ph. D | Digital Communication & Networking |
| 3 | Dr. Najeeb-u-Din | Professor | Ph. D | Silicon-on-Insulator (SOI) MOS devices |
| 4 | Mrs.Usha Razdan | Associate Professor | M. Tech | Computer Science |
| 5 | Mr. A. A. Mir | Associate Professor | M. Tech | Computer Technology |
| 6 | Mrs. Farida Khurshid | Assistant Professor | M. Tech | Image Processing & Pattern recognition |
| 7 | Mrs. Gausia Qazi | Assistant Professor | M. Tech | Optical Fiber Comm. |
| 8 | Mr. A. G. Mir | Assistant Professor | M. Tech | Comm & I. T. |
| 9 | Mr. G. R. Beigh | Assistant Professor | M. Tech | Communication Systems |
|  | **Number of Faculty Members engaged on Contractual basis = 07** | | | |

**R&D Work**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Prof. A. H. Mir** | | | | | | | |
| **S. No** | | | **Title of the Paper** | **Conference/Journal etc. where published** | | | |
| 1. | | | "Segmentation of microscopic images of living cells: A study" | *International Journal of Signal processing, image processing and pattern recognition*, | | | |
| 2. | | | "AR based human identification using ear biometrics", | *International Journal of Signal processing, image processing and pattern recognition*, 2014 [accepted for publication] | | | |
| 3. | | | ," Texture Based Steganalysis of Grayscale Images Using Neural Network, " | *Signal Processing Research* | | | |
| 4. | | | "Signature Verification Based on Texture Features of Image | *IJECT,*  vol. 4, no. 3, Pp.78-82, July-Sep 2013 | | | |
| 5. | | | **“** Performanc analysis of host based and network based IP mobility management schemes via IPV6 network”, | ICCACCI conference, Greater Noida, India, 24 sep,2014. | | | |
| 6. | | | “Sensor Fast Proxy Mobile IPv6 (SFPMIPv6)-A Framework for Mobility Supported IP-WSN for Improving QoS and Building IoT”, | 3rd IEEE International conference on Communication and Signal Processing (ICCSP), 2014, pp. 1564-1569 | | | |
| 7. | | | “DiffServ-Aware Multi Protocol Switching based Quality of Service in Next Generation Networks” | 4th IEEE International Advanced Computing Conference (IACC 2014), 2014, Gurgaon, India | | | |
| 8. | | | “Segmentation of living cells: a comparative study” | 3rd International conference on Communication and Signal Processing (ICCSP), 2014 | | | |
| 8. | | | "Time series model based personal verification using ear biometrics." | 4th International Conference on, pp. 264-268. IEEE, 2013 | | | |
| 9. | | | “Cyber Issues with Respect to Quran and Sunnah”, | Paper published in the proceedings of IEEE Taibah University International Conference on Advances in Information Technology for the Holy Quran and Its Sciences 19-22 Safar 1435 Hijri (22-25 December 2013) Al-Madinah Al-Munawwarah, Saudi Arabia | | | |
| 10. | | | "Performance analysis of Source Specific Multicast over Internet Protocol version 6 with Internet Protocol version 4 in a test bed." | Consumer Communications and Networking Conference (CCNC), 2013 IEEE, pp. 956-961. IEEE, 2013 | | | |
| 11. | | | “Utilizing Internet Protocol Version 6 (IPv6) Multicasting as a Bandwidth Conserving Technology”, | Paper published in the proceedings of Diamond Jubilee seminar on Leveraging ICT for growth and development of J&K, NIT Srinagar, 13th – 14th September 2013. | | | |
| 12. | | | , “Quality of Service (QOS) and Quality of Experience (QOE) in Next Generation Wireless Networks”, | Paper published in the proceedings of 9th JK Science Congress & Regional Science Congress, Kashmir, October 1st to 3rd, 2013. ORAL – EGS-28 | | | |
| 13. | | | "Multi-unit iris biometric fusion using gray level co-occurrence matrix features." | Advanced Electronic Systems (ICAES), 2013 International Conference on. IEEE, 2013. | | | |
| 14. | | | "An energy efficient and dynamic security protocol for wireless sensor network," | Advanced Electronic Systems (ICAES), 2013 International Conference on , vol., no., pp.257,261, 21-23 Sept. 2013 | | | |
| 15. | | | "Signature verification: A study." | In Computer and Communication Technology (ICCCT), 2013 4th International Conference on, pp. 266-271. IEEE, 2013 | | | |
| 16. | | | “Biometrics-Technology, Applications and challenges” | Proceedings of Diamond Jubilee Seminar on Leveraging ICT for Growth and Development of J&K (LICT – J&K), Sep. 2013, P-32. International Conference of Recent Trends in Computing (ICRTC). | | | |
| 17. | | | “IPsec in Mobile IP: A Survey” | Proceedings of international conferences on ComNet, CIIT and ITC, Elsevier 2013, | | | |
| 18. | | | “Comparative Study of Mobility Supporting Schemes Over IPv6 Network” | Proceedings of 2nd International Conference of Recent Trends in Computing (ICRTC) oct. 2013, | | | |
| 19. | | | “Mobile IP in Conjunction with Security Protocol” | Proceedings of Diamond Jubilee Seminar on Leveraging ICT for Growth and Development of J&K (LICT – J&K), Sep. 2013 | | | |
| Prof G. M. Rather | | | | | | | | |
| 1. | | | A High Speed 32-bit FP GA Based Cordic Architecture for Sine and Cosin Function Evaluation | International Journal of Computer Application | | | | |
| **Prof. Najeeb-ud-din** | | | | | |
| 1. | Charge Transport Modeling of Organic Electronic Material | | | Proceeding DAE-BRNS Conference on Organic Devices, BARC Mumbai | |
| 2. | Investigation on inter-modulation Products (IMPs) for IM-DD SCM Optical Link | | | ELSEVIER Optik – International Journal for Light and Electron Optics | |
| . | A 4 GS/s 1.8 V Multiplexer encoder based Flash ADC using TIQ Technique | | | Proceeding (IEEE Xplore) International Conference on Signal Processing and integrated Network SPIN-2104 | |
| 4. | Review on Image Processing :FPGA Implementation Prospective | | | International Journal of Innovative Research in Computer Science and Technology | |
| 5. | Gate Leakage Current Modeling in Ferroelectric FET | | | Physics of Semiconductor Devices, Environmental Science Engineering, Springer International Publishing Switzerland | |
| 6. | A High Speed 32-bit FPGA Based CORDIC Architecture for Sine and Cosine Function Evaluation | | | International Journal of Computer application | |
| **Mrs. Farida Khurshid** | | | | | |
| 1. | AR based human identification using ear biometrics | | | International Journal of Signal Processing , Image Processing and pattern recognition | |
| 2. | A hybrid Template Security Techniques Using Multimodal biometric feature | | | International Journal of Innovative Research in Science and Engineering | |
| 3. | Multi-unit iris biometric fusion using gray level co-occurrence matrix features. | | | Advance Electronic Systems (ICAES), 2013International Conference | |
| 4. | Time series model based personal verification using ear biometrics | | | In Computer and Communication Technology (ICCCT), 4th International Conference on ,pp.264-268. IEEE, 3013 | |
| 5. | Fuzzy Logic Based Data Hiding | | | Proc. Indo-US-Conference and Workshop on Cyber Security, Cyber Crime and Cyber Forensics | |
| **Mrs Gausia Qazi** | | | | | |
| **1** | "Investigation on inter-modulation products (IMPs) for IM-DD SCM optical links" | | | | Optik Elsevier 125 (2014) 1629– 1633. |
| **2** | Performance investigation on harmonic distortion and inter-modulation distortion induced degradation for a single- and two-tone IM-DD SCM optical link | | | | Optik Elsevier 125 (2014) 2148–2153 |
| **3** | Performance investigation on clipping and RIN induced degradation for a single- and two-tone IM-DD SCM optical link | | | | Optics Communications Elsevier 319 (2014) 178–187 |
| **Mr. Abdul Gaffar Mir** | | | | | |
|  | |  | |  | |
| 1 | | Performance Evaluation of Wavelet Based Compression Techniques in Medical Imaging | | International Journal of Signal and Image Processing (ICSIP-2013) | |
| 2. | | A Probabilistic Approach Based Filtered Location Updates in a Mobile Grid Network | | International Conference on advanced Electronics Systems(ICAES-2013) | |
| 3 | | A Retrospect on Robotic Telepresence | | International Journal of Recent and Innovative Trends in Computing and Communications (IJRITCC) | |
| 4 | | Feature Extraction Methods (PCA Fused with DCT) | | International Journal of Advances in Engineering and Technology( IJAET) | |
| **Mr. G. R. Begh** | | | | | | |
|  | Impact of DDoS attack (UDP Flooding) on queuing models | | | *4th International Conference on Computer and Communication Technology (ICCCT), 2013* | | |
|  | Vacate on demand algorithm in cognitive radio networks, | | | *IEEE International Conference on Signal Processing, Computing and Control (ISPCC), 2013* | | |

III. Programmes attended (Conferences/Courses/Training)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| S. No | Name of the Faculty | Name of the Program | Name of the Institute Attended | Dated |
| 1 | Ajaz Ahmad Mir | 9th FICCI Higher Education Program Summit 2013 | FICCI House  New Delhi | 13th & 14th  November 2013 |
| 2 | Aijaz A. Mir | WOSE-2014 | National Board of Accreditation  (NBA) Held at Hotel Ashok N. Delhi | 8th to 10th  March 2014 |

IV. Programmes conducted (Conferences/Courses/Training)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| S. No | Name of the Program | Date when conducted | Name of the Coordinator(s) | No. & Particulars |
| 1 | Interaction with local  Small & Medium scale Industries | October 2014 | Aijaz A. Mir | 100 including students |
| 2 | Luanching & Promotion of Car seat Heating Systems  NIT students Project In collaboration with Rahim motors | November 2013  Programm conducted under III cell. | --do-- | 75 |

**Purchase made for the year 3/2013 to 4/2014**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| S. No | Name of the Equipments | Quantity | Cost of Equipment | Date of Purchase |
| 1 | Exide Battery 12 V 65 AH | 60. No’s | Rs. 3.37,260/= | 15-05-2013 |
| 2 | Digital Storage Oscilloscope | 10. No’s | Rs. 5,37,181/= | 05-06-2013 |
| 3 | Arbitrary Function Generator | 06. No’s | Rs. 5,24,498/= | 05-06-2013 |
| 4 | Digital Mutimeeter | 07. No’s | Rs. 4,40,380/= | 16-01-2014 |
| 5 | On-Line UPS systems 1.KVA | 10. No’s | Under DGS&D rate  contract | 07-03-2014 |
| 6 | On-Line UPS systems 5.KVA | 04. No’s | Under DGS&D rate  contract | 07-03-2014 |
| 7 | On-Line UPS systems 10.KVA | 03. No’s | Under DGS&D rate  contract | 07-03-2014 |

**4.1.5. DEPARTMENT OF CHEMICAL ENGINEERING**

**Head: Dr. Mohammad Noor Salam Khan**

**Introduction**

****

The Department of Chemical Engineering was started in 1963 with a five year degree programme (B.E.) in Chemical Engineering. The Department presently offers instructions at undergraduate level leading to 4 year B.Tech. Degree in chemical Engineering.

Department has produced more than 1500 Chemical Engineering graduates, majority of them belonging to different parts of the Country and some belonging foreign countries like, Iran, Libya, Jordan, Palestine, Saudi Arabia and Sudan.

Engineering graduates from the Department have achieved respectable places in various Government and private organizations. Some of them are also serving abroad at good positions. The Department has been maintaining a high standard of teaching and professional training to enable the students to compete in the national and international job markets. Department has been maintaining close liaison with Indian Institute of Technology Delhi, J&K Science and Technology Department, J&K State Pollution Control Board, Regional Research Laboratory Jammu and various industries in J&K State.

**FACULTY**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S.No.** | **Name** | **Designation** | **Qualification** | **Area of specialization** |
| 01 | Dr. Md N.S.Khan | Professor and HOD | PHD | Bio Chemical Engineering |
| 02 | Mr. F.Q.Mir | Assistant Professor | M-Tech | Membrane Science and Technology |
| 03 | Mr. T.R.Dar | Assistant Professor | BE | Chemical Engineering |
| 04 | Mr. M.A.Rather | Assistant Professor | M-Tech | Nano photocatalysis,  Environment. |
| 05 | Mr. M.P.Ahmad | Assistant Professor | BE | Chemical Engineering |
|  | **Number of Faculty Members engaged on Contractual basis = 04** | | | |

**R&D Work**

**PAPERS PUBLISHED**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S. No.** | **Name of the staff member** | **Title of the paper** | **Conference/Journal** | **Date of Publishment** |
| 1. | Tanveer Rasool | Simulation of forced convection heat transfer from a confined triangular bluff body in a channel | National Conference on innovation and development in Chemical Technology (IDCT-2014), PP-114-118.  University of Chemical Technology, G.G.S Indraprastha University , Dawarka Delhi | 28 Feb-1st March-2014. |
| 2. | Tanveer Rasool | Confined Momentum and Heat Transfer phenomena around a bluff body of Trapezoidal cross-section | National Conference on innovation and development in Chemical Technology (IDCT-2014), PP-100-104.  University of Chemical Technology, G.G.S Indraprastha University , Dawarka Delhi | 28 Feb-1st March-2014. |
| 3. | Malik Parveez | Simulation of forced convection heat transfer from a confined triangular bluff body in a channel | National Conference on innovation and development in Chemical Technology (IDCT-2014), PP-114-118.  University of Chemical Technology, G.G.S Indraprastha University , Dawarka Delhi | 28 Feb-1st March-2014. |
| 4. | Malik Parveez | Confined Momentum and Heat Transfer phenomena around a bluff body of Trapezoidal cross-section | National Conference on innovation and development in Chemical Technology (IDCT-2014), PP-100-104.  University of Chemical Technology, G.G.S Indraprastha University , Dawarka Delhi | 28 Feb-1st March-2014. |
| 5. | Fasil Qayoom | Electrochemical Performance of the Graphite supported Phosphotungstic Acid (PWA) Ion exchange membrane | National Conference on innovation and development in Chemical Technology (IDCT-2014), PP-64-65.  University of Chemical Technology, G.G.S Indraprastha University , Dawarka Delhi | 28 Feb-1st March-2014 |
| 6. | Mushtaq A. Ratheer | CO2 capture through different Chemical Techniques : A Review | Int. Journal of Current Engg. & Technology  Vol. 03, No.5, PP 2025-2029 | December-2013 |

**Programmes attended (Conferences/courses/Training)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S. No.** | **Name of the staff member** | **Title of the programme attended** | **Institute where attended** | **Date** |
| 1. | Dr. M.N.S Khan | International Conference on Advances in Chemical Engg.  (ICACE-2013) | N.I.T Raipur | April, 5-6,2013 |
| 2. | Dr. M.N.S Khan | National Symposium on "Clean Energy from coal resources: Reliability linked to its abundance" | CSIR-IICT Hydrabad | 14th Feb. 2014 |
| 3. | Tanveer Rasool | STC on "Modelling and Simulation using finite element methods" | QIP Centre, IIT Roorkee | 7-11th January, 2014 |
| 4. | Mushtaq A. Rather | STC on " Cyber security" | IITM Kerala | 3-7th Feb. 2014 |
| 5. | Mushtaq A. Rather | National Symposium on "Clean Energy from coal resources: Reliability linked to its abundance" | CSIR-IICT Hydrabad | 14th Feb. 2014 |
| 6. | Malik Parveez | STC on "Modelling and Simulation using finite element methods" | QIP Centre, IIT Roorkee | 7-11th January, 2014 |

**Programmes Conducted (Conferences/courses/Training): Nil**

**Any Other Activity/Achievement**

|  |  |
| --- | --- |
| **1.** | Inauguration of IIChE Students Chapter NIT Srinagar on October 28, 2013. |
| **2.** | "Freshman Orientation Cum Career Counselling Programme" organized by IIChE Student Chapter NIT Srinagar in coordination with Chemical Engineering Society of NIT Srinagar on 25-09-2013. |
| **3.** | Guest Lecture by Junaid Ashraf Shah, Production Engineer, Indian Oil Corporation Ltd. Haldia Refinery (W.B.) on March 10, 2014. |

**Purchases made by the Department of Chemical Engg. for the period 1-04-2013 to 31-03-2014:**

|  |  |  |  |
| --- | --- | --- | --- |
| **S. No.** | **Name of the equipment/item** | **Supply order/ Date of purchase** | **Amount of purchase** |
| 01. | Biological Safety Cabinet | NIT/CPU/Ch.E/13-14/41 Dt 18-03-2014 | Rs. 41,400/- + taxes extra. |
| 02. | Portable Auto clave | NIT/CPU/Ch.E/13-14/42 Dt 18-03-2014 | Rs. 4,700/- + taxes extra. |
| 03. | Vertical Auto clave (triple walled) | NIT/CPU/Ch.E/13-14/43 Dt 18-03-2014 | Rs. 72,000/- + taxes extra. |
| 05. | Bet Analyzer | NIT/CPU/Ch.E/13-14/44 Dt 18-03-2014 | Rs. 5,58,000/- + taxes extra. |
| 06. | Different Chemical items etc. for students project “ Degradation of dyes of new particles” | 03-06-2013 | Rs. 11,055/- |
| 07. | Different Chemical items etc. for students project “ Isobaric VLIE date of Binary mixture” | 03-06-2013 | Rs. 15,930/- |
| 08. | Different Chemical items etc. for students project “ Synthesis of Ti02 new particles” | 03-06-2013 | Rs. 16,875/- |
| 09. | Different Chemical items etc. for students project “ Activated Carbon “ | 03-06-2013 | Rs. 8,500/- |
| 10. | Energy Savers | 20-09-2013 | Rs. 12,550/- |
| 11. | Different Chemical items & glass ware etc for students Lab. Classes | 12-12-2013 | Rs. 98,846/- |

**4.1.6 . DEPARTMENT OF METALLURGY AND MATERIALS ENGINEERING**

**Head: Dr. D. M. A. Khan**

**Introduction**

The department of **“Metallurgical & Materials Engineering”** formerly known as the “Department of Metallurgical Engineering” was established in our Institute in the year 1963. The **present** **sanctioned intake strength of the department is seventy seven (77) students per year**. As approved by the Senate, the new scheme of courses formulated by the Department was made applicable to the students seeking admission in **“Metallurgical & Materials Engineering”** branchfrom the year 2011 and onwards. The department conducts a four (04) years under-graduate academic programme leading to the award of **B.Tech.** **Degree** in engineering.

A two semester “Project Work” is provided to the students to synthesize their knowledge in several areas of metallurgical & materials engineering. The students work either on design & fabrication of equipments for use in the laboratories or on other specific and relevant research topics as decided in consultation with the project advisor.

The objective of the department is to produce technocrats who possess besides necessary technical knowledge, human and social values, leadership qualities and a high degree of confidence & technical creativity.

The department through interactions with academia and industries at national levels intends to excel in metallurgical and materials engineering and in the allied areas by up-dating its academic curriculum and R & D activities so as to meet the requirements of the academia, industries and R & D centres.

**Faculty:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S. No** | **Name** | **Designation** | **Qualifica-tions** | **Area of Specialization** |
| 1. | Dr. R. Ambardar | Professor | Ph.D | Metal Casting, NDT & E, Materials Technology |
| 2. | Dr. D. M. A. Khan | Professor & HOD | Ph. D | Composite Materials,  Process Metallurgy |
| 3. | Dr. Gitanjali | Associate. Professor | Ph. D | High Temperature Materials, Physical Metallurgy |
| 4. | Er.Yashwant Mehta | Asstt. Prof. | M. Tech. | Corrosion Engineering  Joining of Materials |
| 5. | Dr. Atiqur Rehman | Asstt.Prof | Ph. D. | Nano-Structured Coatings, High temperature Coatings, |
|  | **Number of Faculty Members engaged on Contractual basis = 04** | | | |

**Research and Development Work:**

Papers Published

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| S.No. | Name of the Staff Member | Title of the Paper | Conference/Journal etc. where published | Dt. of Publishment |
| 1. | Department of Metallurgical and Materials Engg. | IIM-SAC Journal  Volume I  Volume II  Volume III |  | August-2013  Nov. 2013  Feb.,2013 |
| 2. | Dr. Atikur Rahman  et.al. | 1.“Study of  Structural and  Optical  Properties of  Zn1ALxO  Nanoparticles” | Materials Science in Semiconductor Processing, Vol.18, 2014,15-21. | 2014 |
| 2. ”Study of  Nanostructured  Al doped ZnO  Films” | Surface Technology  Vol.29. No.8 | 2013 |
| 3. “Processing and  Characterization of  Nanostructured Al  doped ZnO Anti  Reflection Films” | Materials Technology Advanced Performance Materials,Vol.28(6) 357-363 | 2013 |
| 4.”Degradation Behaviour of Sputtered Co-Al Coatings on Superalloy” | Material Chemistry and Physics, Vol.138(1)  49-62 | 2013 |

**Programmes attended (Conferences/Cources/ Training:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| S.No. | Name of the Staff Member | Name of the Programme attended | Institute where attended | Date |
| 1. | Prof. D.M.A. Khan | 1.Microwaves Material  Processing Modelling and  Non Destructive Testing. | IIT Kanpur | Sept. 16-20,2013 |
| 2. Nanostructured Carbon:  Fuel Cell Application. | IIT Kanpur | Sept 30-Oct04, 2013 |
| 3.Integrated Computational  Materials Engineering-  ICME Dec, 23-27, 2013 . | IISc. Bangalore. | Dec. 23-27,2013 |
| 4.Chaired Session  “Advanced Structural  Materials” International  Conference on Emerging  Materials Processes. | IMMT Bhubaneswar. | Feb-2014 |
|  | Dr. AtikurRahman,  Asstt. Prof. | 1. “Technologies for clean  & Renewable Energy  Production”. | IIT Roorkee | 03-07,June 2013 |
| 2.”IntegratedComputational  Materials Engineering” | IISc, Bangalore | * 1. ec.2013 |

**Programmes conducted (Conferences/Courses/Training)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| S.No. | Name of the Programme | Date when conducted | Name of Coordinator(s) | No. and Back ground of Participants |
| **1** | “Recent Trends in Advanced  Materials-13” (RTAM13) | 14th Nov.2013 | Dr. D.M.A. Khan | Delegates from outside , Students,  staff and faculty of the Department |

IIM-Students Affiliate Centre was inaugurated on 23rd August 2013. Dr. Arvind Bharti, Director, DRDO was the Chief Guest on this occasion.

IIM-SAC Journal: The department has issued three issues of IIM-SAC Journal.

The department arranged guest lectures by inviting Prof. Deepak Gupta and Prof. Monika

Katiyar, from IIT Kanpur, during the month of May-2013.

Prof. H.S. Ray, from IEST was invited to deliver the expert lectures in, the field of Metallurgical

Kinetics & non ferrous metallurgy in Oct.2013

Prof. Brahma Deo, from IIT Kanpur was invited as External Member of Board of Studies of the department. Prof. Brahma Deo also delivered lectures on Thermodynamics of Iron and Steel Making during the month of March-2014.

**a) Faculty:**

i) Training/higher education: One faculty member of our department namely

Er. Yashwant Mehta, Asstt. Prof. is pursuing higher studies i.e. Ph.D.

Programmae under QIP in Indian Institute of Technology, Roorkee.

**Endeavour :**

* To introduce Post-Graduate courses in the areas of :

1. Metallurgical and Materials Engineering , and
2. Nano-Technology

* To establish the department as an “Inter-Disciplinary Activity Centre” so as to undertake R & D and consultancy activities of varied nature.

To establishe the department as a “Centre of Excellence” in the specific area of technology so as to:

1. address to the problems related to the effective utilization of the mineral & other resources of the state, and
2. to provide meaningful consultancy, testing, and R & D facilities to the industries in general and metallurgical and materials based industries in particular which are located in and around the state.

**Purchases Made during the year 2013-14:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| S.No. | Name of the equipment/Item | Qty. | Dt. of purchase | Amount of Purchase |
| 1 | Hydraulic Pelets Press (15Ton) | 1 No. | 2013-14 | 36000/- |
| 2 | High Temperature Muffle | 1 No, | 2013-14 | 4,56,750/- |
| 3. | Hydraulic Specimen mounting press | 1 No. | 2013-14 | 1,13,487/- |
| 4 | Universal Sand Testing Machine | 1 No. | 2013-14 | 76,383/- |
| 5 | Permeability meter | 1 No. | 2013-14 | 1,32,768/- |
| 6 | Refrigerator | 1 No | 2013-14 | 30,850/- |
| 7 | Programmable Spin Coating Machine | 1 No. | 2013-14 | 2,11,593/- |

**4.1.7 . DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING**

**Head: Dr. Roohie Naaz Mir**

**Introduction**

The Department of Computer Science & Engineering was started in the year 2007, offering four year undergraduate courses, wherein undergraduate students are imparted knowledge in multitude of specialties, including: computer Architecture, Network, Operating System, Data Structure and Algorithm, Theory of Computation, Numerical analysis, Compiler design, Graphics, Artificial intelligence, Database Management System, Data mining, Software Engineering, Human computer interaction, etc.

The Department of Computer Science and Engineering embodies the Institute's tradition of excellence as a world-class leader in computer science and engineering education and research. CSE is in a period of exciting growth and opportunity. In the current ever evolving industrial scenario contents delivered to the students are regularly updated by the faculty members who have themselves been at the helm of path breaking researches and innovations.

In addition to academic work, the CSE department also has computer science research programmes (for a full listing of specialties visit Research Areas) supported through government and industry funding. Faculty research helps define and expand the current and future use of technology.

During the year the students passed out from the department got placed in various National and Multinational companies with 100% placement.

**Faculty:**

The department has qualified faculty and the major areas of expertise available includes disciplines viz., Computer & Network Security, System Design, , Image Processing, Computer Networks, Design and analysis of Algorithms etc.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S. No.** | **Name** | **Designation** | **Qualification** | **Area of specialization** |
| 1 | Dr. Roohie Naaz Mir | Professor | Ph. D. | Network Security, System Design |
| 2. | M. Ahsan Chishti | Assistant Professor | M. S. | Computer Networks, IPV6. |
| 3. | Shaima Qureshi | Assistant Professor | M. S. | Mobile IP, Algorithms |
|  | **Number of Faculty Members engaged on Contractual basis = 07** | | | |

**Laboratories**:

The department has well equipped laboratories which include OOPs lab, Graphics Lab, Network Security lab etc.

**R&D Work**

**Research Publications : Journals**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S.No.** | **Name** | **Title of paper** | **Conference/Journal** | **Date** |
|  | Prof. R. N. Mir | A High Speed 32-bit FPGA based CORDIC Architecture for Sine and Cosine Function Evaluation | International Journal of Computer Applications (0975-8887) | Volune 73 - No. 7, July 2013 |
|  | Prof. R. N. Mir | A Hybrid Radix Approach for efficient Implementation of Un-folded CORDIC Architectures for FPGA Platforms | International Conference on Signal Processing and Integrated Network (SPIN-2014), | 20-21 Feb, 2014. |
|  | Prof. R. N. Mir | A4-GS/s, 1.8 V Multiplexer Encoder Based Flash ADC Using TIQ Technique | International Conference on Signal Processing and Integrated Network (SPIN-2014), | 20-21 Feb, 2014. |
|  | Prof. R. N. Mir | A Hardware Intensive Approach for Efficient Implementation of Numerical Integration for FPGA Platforms | 27th International Conference on VLSI Design & 13th International conference on Embedded Systems | 2014 |
|  | M. Ahsan Chishti | DiffServ-Aware Multi Protocol Switching based Quality of Service in Next Generation Networks | 4th IEEE International Advanced Computing Conference (IACC 2014) | Feb 21-22, 2014 |
|  | M. Ahsan Chishti | Seamless Handoff in WiFi & WiMax Wireless Heterogenous Networks | 4th IEEE International Advanced Computing Conference (IACC 2014) | Feb 21-22, 2014 |
|  | M. Ahsan Chishti & Shaima Qureshi | Cyber Issues with Respect to Quran and Sunnah | IEEE Taibah University International Conference on Advances in Information Technology for the Holy Quran and Its Sciences | 22-25 December 2013 |
|  | M. Ahsan Chishti & Shaima Qureshi | Utilizing Internet Protocol Version 6 (IPv6) Multicasting as a Bandwidth Conserving Technology | Diamond Jubilee seminar on Leveraging ICT for growth and development of J&K, NIT Srinagar | 13th – 14th September 2013. |
|  | M. Ahsan Chishti & Shaima Qureshi | Quality of Service (QOS) and Quality of Experience (QOE) in Next Generation Wireless Networks | 9th JK Science Congress & Regional Science Congress, Kashmir | October 1st to 3rd, 2013. |
|  | M. Ahsan Chishti | Session Maintenance in a Handoff between WiFi & WiMax Wireless Heterogenous Networks | 9th JK Science Congress & Regional Science Congress, Kashmir | October 1st to 3rd, 2013. |

**PROGRAMMES ATTENDED**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S.No.** | **Name** | **Programme Name** | **Institute where attended** | **Date** |
| 1 | M. Ahsan Chishti & Shaima Qureshi | IEEE Taibah University International Conference on Advances in Information Technology for the Holy Quran and Its Sciences | Taibah University, Madina, Saudi Arabia | 22-25 December 2013 |
| 2 | M. Ahsan Chishti | 4th IEEE International Advanced Computing Conference (IACC 2014) | ITM University, Gurgaon | Feb 21-22, 2014 |

**PROGRAMMES CONDUCTED**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S.No.** | **Programme Name** | **Date when conducted** | **Name of coordinators** | **No and Background of participants** |
| 1 | 01-day NME-ICT Awareness Workshop | June 18th 2013 | Prof. R. N. Mir | 300 |
| 2 | 01-day NME-ICT Awareness Workshop | June 19th 2013 | Prof. R. N. Mir | 300 |

**4.1.8 . DEPARTMENT OF INFORMATION TECHNOLOGY**

**Head: Dr. Roohie Naaz**

**Introduction**

The Department of Information Technology was established in 2007, offering four year undergraduate programme (B.Tech) in Information Technology. This undergraduate programme is of 4 years duration with the first year spread over two semesters which is common to all the branches. The intake capacity of the department was 40 in 2007 and then subsequently increased to 60 in 2011. The Department offers a broad curriculum including: Database Management, Software Engineering, Management of Information Systems, Data mining, Computer Graphics, Advanced Internet Technology, Computer Networks, Operating System, Data Structures and Algorithms as the main courses and other courses in collaboration with the other departments of the Institute at the undergraduate level.

The Department of Information Technology embodies the Institute's tradition of excellence as a world-class leader in IT education and research. IT sector is in a period of bloom in terms of growth and opportunity. In the current ever evolving industrial scenario contents delivered to the students are regularly updated by the faculty members who have themselves are well acquainted with path breaking research and innovations in the present technology-oriented world.

During the year the students passed out from the department got placed in various National and Multinational companies with 100% placement.

**Faculty:**

The department has qualified faculty and the major areas of expertise available includes disciplines viz. Computer and Communication Networks, Computer & Network Security, Wireless and Mobile Communication, Wireless Sensor Networks, Image Processing etc.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S. No.** | **Name** | **Designation** | **Qualification** | **Area of specialization** |
| 1 | Shabir Ahmad Sofi | Assistant professor | M. Tech. | Wireless Sensor Networks, Computer & Communication Networks |
| 2 | Arooj Nissar | Assistant professor | M. Tech. | Image Processing |
|  | **Number of Faculty Members engaged on Contractual basis = 07** | | | |

1. Purchases made: NIL
2. **Papers published:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S. No** | **Name of Faculty** | **Title** | **Conference/ journal name** | **Date of Publishment** |
| 1. | Shabir Ahmad Sofi | “ Performance Evaluation of the Automatic Fingerprint Recognition System” International Conference on Information and Telecommunication (ITC-2015), Feb., 2015, Chandigarh, India | International Conference on Information and Telecommunication (ITC-2015) | Feb., 2015 |
| 2. | Shabir Ahmad Sofi | “ Performance analysis of Wavelet Based Energy Efficient Compression Algorithm in Wireless Sensor Networks (WSN)” International Conference on Recent Cognizance in Wireless Communication & Image Processing (ICRCWIP-2015” January, 2015, Jaipur, India | International Conference on Recent Cognizance in Wireless Communication & Image Processing (ICRCWIP-2015) | January, 2015 |
| 3. | Shabir Ahmad Sofi | “ AR Navigation paradigm (\*non-GPS Prototype) for Indian sub-continent” International Conference on Advances in Engineering & Technology (ICAET 2014), June, 2014, Roorkee, India | International Conference on Advances in Engineering & Technology (ICAET 2014) | June, 2014 |
| 4. | Shabir Ahmad Sofi | “ Wavelet Transform Based Effective Energy Utilization approaches of Data Transfer in Wireless Sensor Networks (WSN): A Survey”, International Conference on Advances in Engineering & Technology (ICAET 2014), June, 2014, Roorkee, India | International Conference on Advances in Engineering & Technology (ICAET 2014) | June, 2014 |

1. **Programmes attended:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S. No** | **Name of Faculty** | **Name of the programme attended** | **Institute where attended** | **Date** |
| 1. | Shabir Ahmad Sofi | STC on mathematical modelling at MNIT Jaipur | MNIT Jaipur | Jan 15 |
| 2. | Arooj Nissar | 1 weeks STC on open source technologies | NIT Srinagar | 25-29 May 2014 |

1. Programmes conducted:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S. No.** | **Name of the programme** | **Date when conducted** | **Name of co-ordinators** | **No & background of participants** |
|  | 1 weeks STC on open source technologies | 25-29 May 2014 | Shabir Ahmad Sofi | 60  Multi-disciplinary |
|  | One day workshop on numerical analysis using matlab | May 2014 | Shabir Ahmad Sofi | 70  Multi-disciplinary |
|  | One day workshop on embedded systems in collaboration with Advanced Technologies Chandhigarh | May 2014 | Shabir Ahmad Sofi | 70  Multi-disciplinary |
|  | One day workshop on Bluemix in collaboration with IBM India | Dec 2014 | Shabir Ahmad Sofi | 60  Multi-disciplinary |
|  | Expert lecture on Methemetica at J K Institute of Mathematics Amar Singh College sgr | March 2014 | Shabir Ahmad Sofi | 50  Multi-disciplinary |
|  | Techvaganza-2014 | May, 2014 | Shabir Ahmad Sofi | 2500  Multidisciplinary |

1. Other activities with details:

**Young Scientist Award:**

Mr. Shabir Ahmad Sofi was awarded Young Scientist in the field of Engineering & Technology by Department of Science and Technology, Government of Jammu and Kashmir for his contribution towards the research and development during the last 10 years. The award was presented to him by the Honourable Governor of Jammu and Kashmir Mr. N. N. Vohra at the inaugural function of the 10th JK Science Congress at Jammu university, Jammu.

The department has well equipped laboratories which include, Basic Computer lab, IWD Lab, RDBMS Lab, Computer Network and Communication lab etc.

**4.1.9. DEPARTMENT OF MATHEMATICS**

**Head: Dr. A. Liman**

**Introduction**

The Department of Mathematics, National Institute of Technology, Srinagar started its functioning in the year 1960. During past 52 years many mathematicians of International repute like Prof. Q. I. Rehman (presently working in Canada), Prof. M .A .Ansari (Bretlee - Ansari’s test), Prof. S. I. Hussain (Coordinator of NCERT Books), Prof. A. H. Siddiqui (Ex – Pro Chancellor Aligarh Muslim University) and many worked in the Department. The faculty members of this department are actively engaged in research and have published around 60 research papers in last five years in National and International journals.

**Faculty**

|  |  |  |  |
| --- | --- | --- | --- |
| **S.No.** | **Name** | **Designation** | **Qualification** |
| 01 | Dr. Abdul Liman | Associate Prof. & Head | Ph.D |
| 02. | Dr. Zamrooda Jabeen | Assistant Professor | Ph.D |
| 03. | Dr.Tanweer Jalal | Assistant Professor | Ph.D |
| 04. | Dr. Neyaz Ahmad Sheikh | Assistant Professor | Ph.D |
|  | **Number of Faculty Members engaged on Contractual basis = 04** | | |

* **The Department also engages the Mathematics and other relevant Courses at B.Tech and M.Tech. levels of all branches of Engineering in the Institute.**

I. **PURCHASES MADE**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| S. No | Name of the Equipment/Item | Quantity | Date of Purchase | Amount of Purchase in Rs. |
| 1. | Matlab Software | 20 Nos | 09/04/2015 | Rs: 3,54,200=00 |
| 2. | Wavelet Tool Box Software | 04 Nos | Rs: 45,540=00 |
| 3. | Image Processing Tool Box | 04 Nos | Rs: 45,540=00 |
| 4. | Partial Differential Equation Soft ware | 20 Nos | Rs: 1,41,680=00 |
| 5. | Signal Processing Tool Box | 04 Nos | Rs: 45,540=00 |
| 6. | Symbolic Math Tool Box | 20 Nos | Rs: 1,41,680=00 |
| 7. | Statistics Tool Box | 20 Nos | Rs: 1,41,680=00 |
| 8. | Curve Fitting Tool Box | 20 Nos | Rs: 1,41,680=00 |
| 9. | Optimization Tool Box | 20 Nos | Rs: 1,41,680=00 |
| 10. | Global Optimization Tool Box | 20 Nos | Rs: 1,41,680=00 |
| 11. | Neural Network Tool Box | 04 Nos | Rs: 45,540=00 |
| 12. | Model Based Calibration Tool Box | 04 Nos | Rs: 1,13,852=00 |
| 13. | Simulink Software | 04 Nos | Rs: 56,924=00 |

**R & D Work**

II. **PAPERS PUBLISHED**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Dr. Ab. Liman** | | | | |
| S. No | Name of the staff member | Title of the paper | Conference/Journal where published | Date of publication |
|  |  |  |  |  |
| 1. | Dr. Ab. Liman, W.M. Shah & Irshad Ahmad | A Note on Rational Functions with Prescribed Poles and Restricted zeros. | Vietnam J. Maths | (2015)13, 159-162DOI 10 1007/st003-014-0080-4 |
| 2. | Dr. Ab. Liman, W.M. Shah & Irshad Ahmad | Some Lp Inequalities concerning to the polar derivative of a polynomial with restricted zeros | South east Asian Bulletin of Mathematics. China |  |
| 3. | Dr. Ab. Liman, I.Q. Peer and W. M.Shah | On some inequalities concerning the polar derivative of a polynomial | The Ramaanujan Journal | 35 (3) 2014 |
| 4. | Dr. Ab. Liman,  I. Q. Peer | Bernstein type Inequalities for Rational functions | Indian Journal Pure, Appl. Mathematics |  |
| 5. | Dr. Ab. Liman, W.M. Shah & Irshad Ahmad | Zeros of certain polynomials and analytical function with restricted coefficients | J. Classical Analysis |  |
| 6. | Dr. Ab. Liman, W.M. Shah & Irshad Ahmad | On zeros of polynomials with restricted coefficient | Kyung Book |  |
| 7. | Dr. Ab. Liman,  Irfan Ahmed | Bounds for the zeros of polynomials | IJMMS, Florido USA | 2015, 13 (i): 12-16, |
| 8. | Dr. Ab. Liman,  Irfan Ahmed | Operators preserving Inequalities between polynomials | Asian Journal of Mathematics and Statistics | 2015 |
| **Dr. Tanweer Jalal** | | | | |
| 1. | Dr.Tanweer Jalal | A Ne w Generalized VEctor-Valued Paranormed Sequence Space Using Modulus Functions | Malaya J. Math | 3(1), 110-118, 2015 |
| 2. | Dr.Tanweer Jalal | On some new generalized difference sequence spaces defined by a Modulus Functions | Jour. Math & Computer Sci., | 15, 78-87, 2015 |
| 3. | Dr. Tanweer Jalal | New A - Generalized Sequence Spaces Defined by Ideal Convergence and a Sequence of Modulus Functions on Multiple | Int. J. Open Problems Comp. Math., | 8(1), 44-53,2015 |
| 4. | Dr. Tanweer Jalal | On Generalized A difference Strongly Summable Sequence Spaces Defined by Ideal Convergence on A Real n normed space | Bull. Cal. Math. Soc., | 106(6), 415-426, 2014 |
| 5. | Dr. Tanweer Jalal | Some New I Convergent Sequences Spaces Defined By Using Sequence of Modulus  Fucntions in n-Normed Spaces, | Int. J. Math. Archives | 5(9), 202-209, 2014 |
| 6. | Dr. Tanweer Jalal | New Sequences Defined by Ideal Convergence and a Sequence of Modulus Functions on Multiple normed Space | Int. J.M.M.Sc. | 12(3), 157-164, 2014 |
| 7. | Dr. Tanweer Jalal | New type of Sequence space and matrix transformations. | Int. J.M.M.Sc. | 11(3), 125-129 |
| **Dr. Neyaz Ahmed** | | | | |
| 1. | Dr. Neyaz Ahmed & Ab.Hamid | New type of sequence space of non absolute type and matrix transformations | WSEAS Transaction of Math., | Manuscript No. 5706-160-4749) |
| 2. | Dr. Neyaz Ahmed, Ab. Hamid & M. Mursaleen | New type of generalized difference sequence space of non absolute type and some matrix transformation | Filomat | Vol. 28, No. 7, (2014), 1381-1392 (Springer) |
| 3. | Dr. Neyaz Ahmed, Ab. Hamid & T. Jalal | Some new type of difference sequence spaces defined by modulus function | Accepted in journal of Nonlinear  Functional Analysis |  |
| 4. | Dr. Neyaz Ahmed & Ab. Hamid | Infinite matrices and almost convergence | Accepted in Filomat |  |
| 5. | Dr. Neyaz Ahmed, D. Kumar and Mobin Ahmad Sayeed | Infinite Matrix Operators, Spline Wavelet Coefficients & Frames | British Journal of Mathematics & Computer Sciences | **8 (2), 159-169, 2015** |

**III. PROGRAMMES ATTETNDED (CONFERENCES/COURSES/TRAININGS)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| S. No | Name of the staff member | Name of the programme attended | Institute where attended | Date |
| 1. | Dr. Tanweer Jalal | International  Conference on Current Developments in Mathematics and Mathematical Sciences | Calcutta Mathematical Society, Kolkata | 19-21 Dec. 2014 |
| 2. | Dr. Tanweer Jalal | Short Term Course on Personality Development | NITTR, Chandigarh | 12-16 Jan. 2015 |
| 3. | Dr. Tanweer Jalal | Advanced Techniques & Devices in Mathematics & Physical Sciences (An International Meet) | SRM University  Delhi NCR - Campus | 23-25 Jan. 2015 |
| 4. | Dr. Neyaz Ahmed | Presented a Research Paper "Uncertainty Principle" | Seoul Korea | 13-21 August, 2014 |
| 5. | Dr. Neyaz Ahmed  /AL | Presented a Research Paper "Convergence and Rate of Estimate of functions in Soboley spaces | Jamia Millia Islamia, New Delhi | 27-29 Nov. 2014 |
| 6. | Dr. Ab. Liman | Location of zeros of polynomials | SRM University  Delhi NCR - Campus | 23-25 Jan. 2015 |
| 7. | Dr. Ab. Liman | Bounds for the zeros of polynomials | Jamia Millia Islamia, New Delhi | 27-29 Nov. 2014 |

**IV. PROGRAMMES CONDUCTED (CONFERENCES/COURSES/TRAININGS)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| S. No | Name of the Programme | Date when conducted | Name of Coordinators | No. and Background of participants |
| - | - | - | - | - |

**Other Activities**:

(1) A Research Project entitled "Summability & Wavelet Analysis" has been sanctioned by Department of Science & Technology - SERB, Government of India vide No: SR/S4/MS: 818/13 under the guidance of Dr. Neyaz Ahmed, Associate Professor.

(2) Best Paper Presentation Award was given to Dr. Tanweer Jalal during the International Conference on Current Developments in Mathematics and Mathematical Sciences, organized by Calcutta Mathematical Society, Kolkata Dec. 19-21, 2014

(2) Following two Research Scholars of this Department have been awarded the Ph. D Degree in June, 2014

i. Mr. Ab. Hamid Ganai

ii. Ms. Tawheeda Rasool

**4.1.10. DEPARTMENT OF PHYSICS**

**Head: Dr. G. R. Khan**

**Introduction**

The Department of Physics was established in 1960 and since then it remained actively engaged in imparting the instructions at U.G. level in addition of achieving higher standards in the field of research by guiding M.Phil/Ph.D programs and other sponsored research projects.

It offers two semester compulsory course of basic physics so necessary for engineering students. Besides, the Department offers Electromagnetic Fields and waves, Electronic Devices to the 5th semester (Electronics and Communication) students and Electromagnetic Field and Waves to the 3rd semester (Electrical) students. Besides, the Department has the expertise for giving elective courses, for students of the Civil, Electrical , Mechanical and Metallurgical Engineering Departments.

The Institute acquired the status of National Institute of Technology in August 2003. Since then, the Department of Physics remained very active in research and other academic activities. Till date more than 45 scholars have been awarded the degree of M. Phil/Ph. D. More than 500 research publications in the national and International Journals of repute have been published. Many research projects have been successfully completed and many are running in the Department. The Department is presently very active in research in different fields like Studies of Ionospheric and Magnetospheric Plasma, Material Science, Nuclear Physics, Solid State Physics, Photonics, Renewable sources of energy and Nano-science and Technology. At present 8 research scholars are working in various fields for their M. Phil and Ph. D Degree

**Faculty**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S.No.** | **Name** | **Designation** | **Qualification** | **Area of specialization** |
| 01 | Dr. M. M. Ahmad | Professor | Ph.D | Space Plasma/Nano |
| 02 | Dr. G. R. Khan | Associate Professor & Head | Ph.D | Nanotechnology/Fiber optics/Quantum Theory |
| 03. | Dr. P.A. Ganai | Associate Professor | Ph.D | Nuclear Physics |
| 04. | Dr. M. Ikram | Associate Professor | Ph.D | Solid State Physics |
| 05. | Dr. S. Rubab | Associate Professor | Ph.D | Renewable energy Source |
| 06. | Dr. M.A. Shah | Assistant Professor | Ph.D | Material Science |
|  | **Number of Faculty Members engaged on Contractual basis = 02** | | | |

**The Department also engages the Physics and other relevant Courses at B.Tech level of all branches of Engineering in the Institute.**

**.**

1. ***PURCHASE MADE:***

|  |  |  |  |
| --- | --- | --- | --- |
| S. NO. | NAME OF THE EQUIPMENT/ITEM | DATE OF PURCHASE | AMOUNT OF PURCHSE  (In Rupees) |
| 1. | Set-up for study of regulation  Load state supply at different levels. | 01.09.2014 | 13200.00 |
| 2. | Apparatus for determination of  Dielectric for both tubes. | 01.09.2014 | 25100.00 |
| 3. | Apparatus for determination of propogatic laser in optic fibre. | 01.09.2014 | 21000.00 |
| 4. | Apparatus for determination of Angle of prisim by spectrometer. | 01.09.2014 | 32715.00 |
| 5. | Apparatus for determination of excita for inside by Frankhertez. | 11.2014 | 94502.00 |
| 6. | Characterization of a solar cell | 11.2014 | 8710.00 |
| 7. | Coefficient, carrier density of semi conductor | 11.2014 | 37597.00 |
| 8. | Apparatus for study of abslables and monstate. | 07.11.2014 | 48918.00 |
| 9. | Study of high low pass filter complete set. | 07.11.2014 | 74805.00 |
| 10. | Magnetic susceplibty of fecl 3. | 07.11.2014 | 74456.00 |
| 11. | Energy of band gap of PN junction diode | 07.11.2014 | 12028.00 |
| 12. | Wave length by Newton’s ring apparatus | 07.11.2014 | 18840.00 |
| 13. | Fringer Width by Fresnel by prisim | 07.11.2014 | 23460.00 |
| 14. | Specific charge by e/m by using helical methods. | 07.11.2014 | 14641.00 |
| 15. | Refractive Index determination Laser source . | 07.11.2014 | 14414.00 |
| 16. | Laurant half shared apparatus  Polaremeter. | 07.11.2014 | 10101.00 |
| 17. | Set-up for the study of Triangular wave generator. | 18.01.2015 | 37400 |
| 18. | Apparatus for the study of the dispersion relativity using laclte. | 18.01.2015 | 33300... |
| 19. | BH Curve Set up for the magnetic parameter. | 18.01.2015 | 22800.00 |
| 20. | Apparatus for the determination of curier temp. | 18.01.2015 | 13000.00 |
|  |  | Total Amount  VAT  Grand Total Amount | 3,39,385.00  45,816.00  **3,85,201.00** |

**R & D Work**

1. ***PAPERS PUBLISHED:***

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| S. NO | NAME OF THE SAFF MEMBER | TITLE OF THE PAPER | CONFERRENCE/ JOURALS ETC. WHERE PUBLISHED | DATE OF PUBLISHEMENT |
| 1. | **Dr. Mohd Ikram** | Synthesis, Characterization and Properties of Single- Walled Carbon Nanohorns. | J Clust Science. | 2014 |
| Effect of Gamma Irradiation on Structural, Dielectric and Conductivity Properties of HoFe1-xNixO3 (x = 0.0, 0.1, 0.3)”. | Applied Physics A, | 2014 |
| Temperature Dependent Raman Spectroscopy of La1−*x*Ca*x*MnO3 (*x* = 0.0, and 0*.*3). | Adv. Mat. Lett. | 2014 |
| Visible-light Induced Hydrogen  Generation with ZnO/NiO/Cd1-xZnxS (x=0.0, 0.2) Heterostructures” | Chemical Physics  Letters | 2014 |
|  | Structural, Optical and Dielectric Properties of Ni  Substituted NdFeO3 . | Journal of OPTIK,. | 2014 |
| ” Structural Analysis and  Dielectric Properties of HoFe1-xNixO3¬ (0.0≤x≤0.5). | Journal of Electronic  Materials. | 2014 |
| Structural, Magnetic and Electronic Structure Studies of PrFe1-xMnxO3 (x=0.0, 0.1, 0.3, 0.5) Thin Films Grown on Si (100). | Journal of Alloy and Compound. | 2014 |
| An investigation of Electrical, Magnetic and Optical, Properties of La1-xCaxMnO3 (x= 0.0, 0.3, 0.5 and 0.7) system. | Adv. Mat. Lett. | 2015 |
| Structural & Di-electrical Studies RFeO3 (R = Pr, Eu & Ho). | 2015 Inter national Conference on Advances in Computers, Commutation and Electronics Engineering( COMMUNE-2015, Department of Electronics & Instrumentation Technology University of Kashmir, Srinagar. | 2015 |
| 2. | **Prof.**  **M.M. Ahmad** | **1.Plasmonic resonance of Ag nanoclusters diffused**  **in soda-lime glasses.**  **2. Photoluminescence and plasmon resonance in silver embedded glass matrices** | ***Phys. Chem. Chem. Phys.***, 2015, Advance Article : **DOI: 10.1039/c4cp05679e**  Adv. Mater. Lett. 2015, 6(3), 242-2  **DOI: 10.5185/amlett.2015.5634** | 16 February-2015  15 November 2014 |
|  |
| 1. **Photoluminescence and photoconductivity of Ni doped titania nanoparticles.** 2. **Plasmonic resonance in spray deposited Au nanoparticles grown on TiO2 thin film** 3. **Single crystal growth by gel technique and characterization of lithium hydrogen tartrate** 4. **Engineering optical properties of silver nanoslusters in an ion exchanged soda- lime glasses, EECSELKNW-08064-108** | Adv. Mater. Lett. 2015, **6**(3), 201-208  **DOI: 10.5185/amlett.2015.5663**  Adv. Mater. Lett. 2015, 10.5185/amlett.2014.5745  **Journal of Crystal Growth 412(2015) 72-79**    **EECSELKNW-08064-108** | 16 November-2014  14 th March-2015  November-2014 |
| 3. | **Dr. S Rubab** | 1. **Synthesis of large surface area, mesoporous ZnO nanorods for optoelectronic devices. Nanotechnology 74 27213-27216.** 2. **A review of various nano-structures to enhance the efficiency of solar-photo-conversions. Book Chapter:Nanotechnology applications for improvements in energy efficiency and environmental management. DOI:10.4018/978-1-4666-63-4-6.ch010.** 3. **A benign hydrothermal synthesis of nanopencil-like zinc oxide nanoflowers, international Nano Letters. DOI:10.1007/s40089-014-0130-7** | Elexir Publications:ISSN No. 2229-712x  IGI Global Publishers.  Springer, ISSN No. 2008-9295 | 2014  2014  2014 |
| 4. | **Dr.P A Ganai** | [Triaxial projected shell model description of high-spin band-structures in 103,105 Rh isotopes](https://scholar.google.com/citations?view_op=view_citation&hl=en&user=zeJnXXgAAAAJ&sortby=pubdate&citation_for_view=zeJnXXgAAAAJ:roLk4NBRz8UC) | Physics letters B 738, 218-222  Impact Factor : 5.6 | 2014 |
| 5. | **Dr. M.A. Shah** | The study of the structural and morphology features of indium tin oxide (ITO) nanostructures | Material Research Express, Volume 1, Number 1. | © 2014 IOP Publishing Ltd Received 3 December 2013, accepted for publication 24 February 2014  Published 19 March 2014 |
| Contamination Free Indium Tin Oxide (ITO) Nanoparticles Prepared without Additives | Technology Letters, Vol.1, No.7. | (2014)10-13 ISSN: 2348-8131 |
| Synthesis of large surface area, mesoporousZnOnanorods for optoelectronic devices | Nanotechnology | Elixir Nanotechnology 74 (2014) 27213-27216 ISSN.2229-712x |
| Boehmite (AlOOH) nanostrips and their growth mechanism | Int Nano Lett (2015) 5:67–70,  Springer | Received: 25 July 2014 / Accepted: 10 January 2015 / Published online: 4 February 2015 |
| A Study of Magnetic Behaviour for Nanoparticles | American Journal of Nanomaterials, 2014, Vol. 2, No. 1, 1-3 ISSN (Print): 2372-3114. ISSN (Online): 2372-3122 © Science and Education Publishing | Received February 18, 2014; Revised March 10, 2014; Accepted March 12, 2014 |
| A Review of Various Nanostructures to Enhance the Efficiency of Solar-Photon-Conversions. | *Nanotechnology Applications for Improvements in Energy Efficiency and Environmental Management*, 277. | IGI-Global USA,  2014 |
| Date when conducted | Name of the Coordinator | No. and Background of Participants |
| 14-18 March, 2014 | Dr. M.A. Shah | 300 Students + Delegates |
| Name of the Conference | Institute | Date |
| First Int. Conference Of Pharmacy and Health Sciences | Faculty of Pharmacy and Health science , University of Kualalumpur, Malaysia | Oct. 08-10, 2014 |

1. ***PROGRAMME ATTENDED (CONFREENCES/CUURSES/TRAINING):***

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| S. NO. | NAME OF THE SAFF MEMBER | NAME OF THE PROGRAME ATENDED | INSTITUTE WHERE ATENDED | DATE |
| 1. | **Dr. Mohd. Ikram** | National Conference on “Applied Physics and Material Science. | Department of Physics  M. D. University  Rohtak-124001, Haryana. | Feb. 5-6 2015. |
| National Conference  on “Microscopy & Advances in Material Science (NCMAMS-2015). | Department of Physics & Electronics University Of Jammu. | March 2-4 , 2015. |
| UGC Sponsored National Seminar on Electronic Devices, Systems and Information Security (SEEDS-2015). | Department of Electronics & Instrumentation Technology University of Kashmir, Srinagar. | March 16-17 , 2015. |
| 2015 International Conference on Advances in Computers, Commutation and Electronics Engineering (COMMUNE-2015). | Department of Electronics & Instrumentation Technology University of Kashmir, Srinagar. | March 16-18, 2015. |
| 2. | **Prof. M.M.**  **Ahmad** | 1. Engineering optical properties of silver nanoslusters in an ion exchanged soda- lime glasses 2. Plasmonic effect of Au nanoparticles grown on TiO2 thin film. 3. Plasmonic properties of Ag nanoclusters dispersed in soda-lime glass” Recent   Advances On Luminescent Materials (RALM-2015).   1. Liesegang patters: Estimation of diffusion coefficient an a plausible justification fur colloidal explanation 2. Characterization of some gel grown tartrate and malonate crystals | International Conference on Electrical , Eletronics & Computer Science Engineering(ICEECSE) held at Lucknow on 8th June 2014.  M.M. University, MULLANA-Ambala Haryana (India)-  Annamalie  University  Engineering –ASEE-2014  Jammu  University | June 2014  20-21 December -2014  January 23-24,2015  2014  March-2015 |
| 3. | **Dr. Semin Rubab** | 1. “STEM Career and Women:Situations from Kashmir Valley”. 2. “Estimation of degree day on basis of temperature data of Pahalgam”. Poster presented in National Hindi Scientific Seminar on “Climate Changeand Monsoon Variability, Prediction and Climate Services:A Scientific Approach”. 3. “Oxidative-Etching Modified Sol-Gel Synthesis of ZnO Nanorods”. Paper presented in First International Conf “Emerging Materials and Characterization & Application” 4. “Inspire Science Camp: A unique platform to communicate science among youth. Paper presented in 14th Indian Science Communication Congress on Communication Strategies for Science Governance | Conf Young Women and Mathematics, YWM 2014 at IISER Pune  IITM Pune  CGCRI Kolkata  INSA New Delhi | 25th July, 2014  31st July 2014  Dec 4-6, 2014  25th Dec. 2014 |
| 4. | **Dr. P.A. Ganai** | Delivered lecture series on Nuclear Theory in SERC School | IITR- | Feb.23-05 March  2015 |
| Delivered Lecture Series on Nuclear Structure in IUAC School | Nuclear Science Centre | April 20-26 2014 |
| 5. | Dr. M.A. Shah | First Int. Conference Of Pharmacy and Health Sciences | University of Kualalumpur, Malaysia | Oct.8-10, 2014 |

IV***. PROGRAMME CONDUCTED (CONFREENCES/COURSES/TRAININGS):***

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| S.NO. | NAME OF THE PROGRAMME | DATE WHEN CONDUCTED | NAME OF COORDINATOR(S) | NO. 7 BACKGROUND OF PARTICIPANTS |
| **1.** | **Inspire** | **14-18 March, 2014** | **Dr. M.A. Shah** | **300 Students + Delegates** |

***V. ANY OTHER ACTIVITIES/ ACHIEVEMENTS WITH DEATALS:***

**1. Dr. M. Ikram**

Research Project:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **UGC-DAE- Consortium for Scientific Research Indore.** | Effect of Synchrotron Radiation on the Photoemission Spectroscopy (PES) Studies of Double Perovskite. | **~ 7.80 lacs** | **2015-2018** | **Approved for 3 years.** |

**Dr. S Rubab**

1. **Delivered two lectures on 'Role of Nano technology in enhancing Energy Security and 'Superconductivity: Introduction and applications' at ASC, BRA Bihar university, Muzaffarpur on 22.1. 2015 and 23 .1.2015 during  Refresher Course on Physics.**
2. **Delivered a talk on 'Green concepts and its implementation' in UGC 2nd special winter school on 'Quality Improvement in HE through NAAC accreditation at Magadh Mahila College, Patna on 28.1.2015**
3. **Delivered a talk on 'Moving towards Renewable Sources' at Magadh Mahila College, Patna on  National Science Day on 28.2.2015**
4. **Organizing committee  member of Techvaganza 2014, the Technical festival of NIT Srinagar**

**4.1.11. DEPARTMENT OF CHEMISTRY**

**Head: Dr. Shakeel Ahmad Shah**

**Introduction**

The Department of Chemistry was established in 1960 and has been headed by the renowned personalities like Prof. R. P. Jeerath,, Dr. Ram Murthi, Dr. Shakti Rais Ahmad, and Dr. A. K. Choudhry. About fifteen Ph. Ds and 30 M. Phils have been produced by the Department till date. The faculty members of the Department have published many scientific papers and reviews in National and International journals of repute. Research, in the areas of Physical, Organic, Inorganic and Environmental Chemistry, are being carried out in the Department.

**Faculty**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S.No.** | **Name** | **Designation** | **Qualification** | **Area of specialization** |
| 01. | Dr. S. A. Shah | Associate Professor & HOD | Ph.D | Inorganic Chemistry |
| 02. | Dr. Tabassum Ara | Associate Professor | Ph.D | Organic Chemistry |
| 03 | Dr. Kowsar Majid | Associate Professor | Ph.D | Physical Chemistry |
| 04. | Dr. J. A. Banaday | Assistant Professor | Ph.D | Organic Chemistry |
| 05. | Dr. HamidaChisti | Assistant Professor | Ph.D | Inorganic Chemistry |
|  | **Number of Faculty Members engaged on Contractual basis = 01** | | | |

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| --- | --- | --- | --- | --- | --- |
| **S. No**. | **Name of the Staff member** | **Research Papers Published by each Faculty**  **(for last three years)** | **Patent** | **Ph. Ds Produced** | **Projects**  **Completed** |
| 01. | Dr. Sakeel Ahmad Shah (HOD) | 06 | - | 01 | - |
| 02 | Dr. Tabassum Ara (Assoc. Prof) | 06 | - | - | - |
| 03. | Dr. Kowsar Majid (Assoc. Prof) | 17 | - | 01 | 01 |
| 04. | Dr. Javid Ah. Banday (Assist. Prof) | 21 | - | - | - |
| 05. | Dr. Hamida Chishti (Assist. Prof) | 06 | - | - | - |

**The Department engages the Chemistry subjects and other relevant Courses at B.Tech. level of all branches of Engineering of the Institute, in addition to Research.**

**R & D Work**

**Research Papers published by Dr. S. A. Shah Head of the Department of Chemistry, NIT Srinagar for the last three years**

**Total number of papers published during last three years = 07**

**Number of Ph.Ds. Produced : 01** under the supervision of **Dr. S. A. Shah**

**01.** Efficiency of some Sewage Treatment Plants of Srinagar city : A brief study.

**Ruheela Bashir Makhdoomi and Shakeel Ahmad Shah**

**Elixir Pollution, 62,** 17479-17500 **(2013)**

**02.** Preparation, Characterization and Antimicrobial and Antifungal activities of 2-Methyl- 4-(7-methyoxy-2-oxo-2H-chromen-8-yl)-but-2-en-1-al, an Analogue of Osthol, a Major Constituent from *Prangos pabularia.*

**Alia Farozi**, Javid A.Banday and **Shakeel A. Shah**

***Elixir Organic Chemistry*, 65, 19637-19639 (2013)**

**03.** Chemical composition and antioxidant activity of the leaf essential oil of *Artimisia absinthium* growing wild in Kashmir, India.

Humara Wani, **Shakeel A. Shah**, Javid A.Banday

***The Journal of Phytopharmacology*, 3(2), 90-94 (2014)**

**04.** Chemical composition and antioxidant activity of the leaf essential oil of *Artimisia*  *salsoloides* growing wild in Kashmir Himalayas

Humara Wani**, Shakeel A. Shah,** Javid A.Banday

***Elixir Org. Chem.***, **71, 24581-24583 (2014)**

**05.** Removal of Heavy Metal Ions from Waste Water by Using Oxalic Acid: An

Alternative Method

Mudassir Ahmad Bhat, Faizanul Mukhtar,Hamida Chisti, **Shakeel Ahmad Shah**

***Int. J. of Latest Res. in Sc. and Tech.* 3(3), 61-64 (2014)**

**06.** Removal of Heavy Metal Ions from Water by Cross-linked Potato di-starch phosphate polymer

**Mudassir Ahmad Bhat**, Hamida Chisti, **Shakeel Ahmad Shah**

***Separation Science and Technology,* accepted Oct. (2014)** *in press*

**07**. *In Vitro* screening for anticancer activity of petroleum ether and ethyl acetate extracts of *Conyza canedensis* growing in Kashmir region.

Javid A. Banday, **Shakeel A. Shah,** Ajaz H. Kanth, **Alia Farozi**, Humaira Wani

***Adv.Biomed.Pharma.*2:2,82-85(2015)**

**Research Papers published by Dr Tabassum Ara, Associate Professor, Department of Chemistry, NIT Srinagar for the last three years**

**Total number of papers published during last three years = 06**

1. Synthesis of Some Novel Dicoumarols derivatives in “Journal of Pharmacy Research”, volume 6, , 2013, pp 373-377,**Tabassum Ara** , Khaliquz Zaman Khan , Khalida Tasneem
2. Some Novel reactions of 1,3-Indandione in “ International journal of Chemtech Applications ” volume 2, issue 2, 2013, pp 1-8, N. D. Zargar , I.U. Nisa , K. Z . KHAN , **T. Ara.**

3. Thermal Studies and Analytical Applications of a Newly Synthesized Composite Materia “Polyaniline Stannic Molybdate” International Journal of Nonferrous Metallurgy, 2013,

2,

106-109 Published Online July 2013, Sajad Ahmad Ganai, Javid Ahmad Banday,

AbidHussainShalla, **Tabassum Ara.**

**4**. Synthesis of some derivatives of dimedone, gamma pyrone and barbituric

acid in “Journal of Pharmacy Research” *2014,8(6),786-790* .

**Tabassum Ara** and Khaliquz Zaman Khan.

**5.** New route for the synthesis of unsubstituted dibenzoyl methane and some derivatives of dibenzoyl methane and deoxybenzoins in “Journal of Pharmacy Research” *2014,8(6),828-833*

**Tabassum Ara** and Khaliquz Zaman Khan

**6**. Synthesis And Biological Evaluation Of Novel Isoxazoles And Triazoles Linked 6-Hydroxycoumarin As Potent Cytotoxic Agents in Bioorganic & Medicinal Chemistry Letters 11 July 2014

Shakeel-u-Rehman , Masood-ur-Rahman , Vijay K. Tripathi , Jasvinder Singh ,

**Tabassum Ara** ,Surrinder Koul ,Saleem Farooq , Anupurna Kaul.

**No of Ph.D enrolled = 05**

**Research Papers published by Dr Kowsar Majid, Associate Professor, Department of Chemistry, NIT Srinagar for the last three years**

**Total number of papers published during last three years = 17**

**No of Ph.D supervised= one**

**No of M.Phil supervised = ones**

1. **Synthesis, characterization and thermal kinetics of multiligand homobinuclear complex of Cobalt(II) with monoethanolamine as a bridging ligand,K. Majid\*, F. A. Rafiqi and M. S. Rather,Elixir Chem. Phys. Letter (Elixir Press),47 (2012) 8917-8920,ISSN 2229-712 X**
2. **Synthesis, characterization, and thermal study of polyaniline composite with the photoadduct of potassium hexacyanoferrate(II) involving hexamine ligand, Mohammad Sideeq Rather • Kowsar Majid •Ravinder Kumar Wanchoo • Madan Lal Singla, Journal of Thermal Analysis and Calorimetry (Springer), 112 (2013) 893-900.**
3. **Doping polyaniline with copper bisglycinate [Cu(gly)2]- synthesis, Characterization and Thermal study, Feeroze Ahmad Rafiqi, Mohammad Sidiq Rather, Kowsar Majid, Synthetic Metals, (Elsevier ) 171 (2013) 32-38.**
4. **Nanocomposite of polyaniline with the photoadduct of potassium hexacyanoferrate and pyridine : Structural, electrical , mechanical and thermal study, Mohammad Sideeq Rather • Kowsar Majid •Ravinder Kumar Wanchoo • Madan Lal Singla, Synthetic Metals, ,(Elsevier ), 179 (2013) 60-66.**
5. **Synthesis, Characterization, Electrical and Thermal properties of Nanocomposite of Polythiophene with nanophotoadduct: A potent composite for electronic use. Mohammad Hanief Najar and Kowsar Majid, Journal of Materials Science: Materials in Electronics, (Elsevier), 24 (2013) 4332-4339.**
6. **In –situ synthesis and charcaterization of composite of Polyaniline with cobalt monoethanolamine complex , Rehana Raool and Kowsar Majid, Elixir International Journal, under category Chemistry and Material Science and Sub category “ Chemical Physica Letters” 60 (2013) 16591-16593.**
7. **Synthesis, characterization and thermal study of composite of polyaniline doped with multiligand complex of Cobalt (II), Feeroze Ahmad Rafiqi, Mohammad Sidiq Rather, Kowsar Majid, Materials Research Innovations, (Springer/Maney Publishers), 18 (2014) 307-313.**
8. **Synthesis, characterization , thermal and electrical properties of composite of polyaniline with cobaltmonoethanolamine complex, Rehana Rasool and Kowsar Majid, Bull. Mater. Sci., 37 (2014) 1181–1190.**
9. **Role of photoadduct of K4Fe(CN)6 and C3H4N2 in improving thermal stability of polyaniline composite Mohammad Sideeq Rather • Kowsar Majid • Ravinder Kumar Wanchoo • Madan Lal Singla, J Therm Anal Calorim, 117 (2014) 611–619.**
10. **Nanocomposite of polypyrrole with the nanophotoadduct of sodiumpentacyanonitrosylferrate(II) dihydrate and EDTA: A potentialcandidate for capacitor and a sensor for HF radio wave detection. Mohd. Hanief Najar, Kowsar Majid, Synthetic Metals 198 (2014) 76–83.**
11. **Structural, dielectric and ac conductivity properties of Ni-doped HoFeO3 before and after gamma irradiation, Zubida Habib , M. Ikram, Kowsar Majid , K. Asokan, Applied Physics A 116(2014) 1327-1335**
12. **Structural Analysis and Dielectric Properties of HoFe1\_xNixO3 , Zubida Habib , Kowsar Majid ,M. Ikram, , K. Asokan, Journal of Electronic Materials, 44 (2015) 1044-1052.**
13. **Synthesis, characterization, luminescence properties and thermal studies of polyaniline and polythiophene composites with rare earth terbium(III) complex, Ferooze Ahmad Rafiqi \*, Kowsar Majid, Synthetic Metals 202 (2015) 147–156.**
14. **Dielectric and impedance study of polycrystalline Li0.35\_0.5XCd0.3NiXFe2.35\_0.5XO4 ferrites synthesized via a citrate-gel auto combustion method, M. Abdullah Dar, Kowsar Majid , Khalid Mujasam Batoo, R.K. Kotnala, Journal of Alloys and Compounds 632 (2015) 307–320.**
15. **Synthesis and Characterization of nanocomposite of  
     Polythiophene with Na2[Fe(CN)3(OH)(NO)C6H12N4] H2O: A potent material for EMI shielding applications,  
     Mohd Hanief Najar, Kowsar Majid, Accepted May 2015 Journal of Material sciences : Material in Electronics**

1. **Role of a rare earth gadolinium (III) complex in improving the thermal stability of a polythiophene composite, Ferooze Ahmad Rafiqi, Kowsar Majid, Accepted May 2015, Chemical Papers,**
2. **Synthesis, charcterization of nanocomposite of polythiophene with Na2[Fe (CN)3(OH)(NO)(C6H12N4)]H2O: a potent material for EMI shielding applications , M Hanief Najar and Kowsar Majid, DOI 10.1007/s 1085-015-3237-3**

**Research Papers published by Dr Javid Ahmad Banday, Assistant Professor, Department of Chemistry, NIT Srinagar for the last three years**

**Total number of papers published during last three years =21**

**1. Javid A. Banday\*,**S. Farooq,M. A. Qurishi, S. Koul, T. K. Razdan. “Conyzagenin-A and -B, Two New Epimeric Lanostane Triterpenoids from *Conyza canedensis*.” *Natural Product Research* (Taylor-Francis), **2013,** *27*(11), 975-981. DOI:10.1080/14786419.2012.701214.

**2. Javid A. Banday\***, F.A. Mir, S. Farooq, M. A. Qurishi, S. Koul, T.K. Razdan.“Salicylic acid and Methyl gallate from the roots of *Conyza canedensis*.” *International Journal of Chemical and Analytical Science* (Elsevier), **2012**, *3*(2), 1305-1308.

**3. Javid A. Banday\***,F.A.Mir, M. A. Qurishi, S. Koul, T. K. Razdan. “Isolation, Structural, Spectral and Thermal studies Imperatorin micro-crystals from *Prangos pabularia*.” *Journal of Thermal Analysis and Calorimetry* (Springer), **2013**, *112*(3), 1165-1170.

DOI: 10.1007/s10973-012-2683-x

**4. Javid A. Banday\***,F.A.Mir,M. A. Qurishi, S. Koul, T. K. Razdan. "Heraclenin: A potential optoelectronic device material from *Prangos pabularia*", *Journal of Electronic Materials* (Springer), **2013,** *42*(8), 2498-2503.

DOI: 10.1007/s11664-013-2596-x.

**5. Javid A. Banday\***,F. A. Mir, A. H. Kanth, G. M. Bhat. **“**Structural and optical properties of Heraclenin; a bio-organic molecule from *Prangos Pabularia.”*

## OPTIK- International Journal for Light and Electron Optics (Elsevier), 2013,124(20), 4655– 4658. <http://dx.doi.org/10.1016/j.ijleo.2013.01.114>.

## 6. S. A. Ganai, Hamida-Tun-Nisa, Javid A. Banday, Siraj Ahmad. “Synthesis & thermal studies of polyaniline stannic silicate & its role in the removal of toxic metal ions.” American Journal of Analytical Chemistry (Scientific Research), 2012, 3, 272-276.

**7**. F.A.Mir, **Javid A. Banday,** Christian Chong, Pierre Dahoo, and F. A. Najar **“**Optical and electrical characterization of Ni-doped orthoferrites thin films prepared by sol-gel process”.*The European Physical Journal-Applied Physics*, **2013**, *61*, 10302

DOI: 10.1051/epjap/2012120329

**8.** S. M. Buch, F. A. Mir, S. Rehman, M. A. Qurishi, **Javid A. Banday**. “Irigenin - an Isoflavone: a brief study on structural and optical properties.” *The* *European Physical Journal-Applied Physics*, **2013,** *62***,** 31201**.**

DOI: <http://dx.doi.org/> 10.1051/ epjap/ 2013130052

**9.** S. A. Ganai, **Javid A. Banday**, A. H. Shalla, T. Ara.“Thermal studies and analytical applications of a newly synthesized composite material-polyaniline stannic molybedate.” *International Journal of Non-ferrous Metallurgy*, **2013**, *2*(3), 106- 109. DOI: 10.4236/ijnm.2013.23015.

**10.** F. A. Mir, G. M. Bhat, K. Asokan, **Javid A. Banday.** “Various characterizations of Oxypeucedanin micro crystals: an organic molecule.”*Journal of Materials Science: Materials in Electronics* (Springer), 2014, *25,* 431-437.

DOI 10.1007/s10854-013-1606-3

**11**. Alia Farozi, **Javid A. Banday\***, S. A. Shah. “Preparation, Characterization and Antimicrobial and Antifungal activities of 2- Methyl-4-(7-methoxy-2-oxo-2H- chromen-8-yl)-but-2-en-1-al, an Analogue of Osthol, a Major Constituent from *Prangos pabularia* .” *Elixir Organic Chemistry*, **2013**, *65,* 19637-19639.

**12.** Humara Wani, S. A. Shah, **Javid A. Banday\*.** “Chemical Composition and Antioxidant Activity of the Leaf Essential Oil of *Artemisia absinthium* growing wild in Kashmir, India.” *The Journal of Phytopharmacology,* **2014**, 3(2), 90-94.

**13.** Humara Wani, S. A. Shah, **Javid A. Banday\*. “**Chemical Composition and Antioxidant Activity of the Leaf Essential Oil of *Artemisia salsoloides* growing wild in Kashmir Himalayas*.*” *Elixir Organic Chemistry*, **2014**, 71, 24581-24583.

**14.** M. A. Rather, B. A. Dar, W. A. Shah, A. Prabhakar, K. Bindu, **Javid A. Banday**, M. A. Qurishi. "Comprehensive GC-FID, GC-MS and FT-IR spectroscopic analysis of the volatile aroma constituents of *Artemisia indica* and *Artemisia vestita* essential oils". *Arabian Journal of Chemistry* (Elsevier), **2014**

**Doi**: http://dx.doi.org/10.1016/ j.arabjc.2014.05.017

##### 15. Manzoor A. Rather, Javid A. Banday, Mushtaq A. Qurishi. "Growing impact of plant terpenoid natural products from essential oils on transdermal drug delivery- A Review". Advances in Biomedicine and Pharmacy, 2013, 1, 909-918.

##### 16. Manzoor A. Rather, Mushtaq A. Qurishi, Javid A. Banday, Anil Prabhakar. "Antioxidant and Antibacterial Activity of Ethanolic Extracts of Gentiana lutea". Advances in Biomedicine and Pharmacy, 2013.

##### 17. Mahpara Qadir, Wajaht A. Shah, Javid A. Banday "GC-MS analysis, Antibacterial, Antioxidant and Anticancer activity of essential oil of Pinus roxburghii from Kashmir, India". International Journal of Pharmacological Research, 2014, 4 (2), 61-64.

**18.** Feroz A. Mir, Sajad A. Rather, Ishfaq A. Wani , **Javid A. Banday**, and Shoukat H.

# Khan. "Optical properties of some modified plant compound after 662 keV gamma radiation". *Radiation Effects and Defects in Solids* (Taylor-Francis), 2014, 169 (11), 906- 912, DOI: 10.1080/10420150.2014.961457

**19**. Mahpara Qadir, **Javid A. Banday** and Wajaht A. Shah. "GC-MS analysis and Antioxidant activity of essential oil of *Artemisia amygdalina* from Kashmir, India". *The Journal of Phytopharmacology*, **2014**, 3(4), 234-237.

**20**. Saleem Farooq, Shakeel-u-Rehman, Nisar A. Dangroo, Dev Priya, **Javid** **A. Banday**, Pyare L. Sangwan1, Mushtaq A. Qurishi, Surrinder Koul, Ajit K.Saxena. "Isolation, Cytotoxicity Evaluation and HPLC-Quantification of theChemical Constituents from Prangos pabularia." *PLOS ONE* (Public Library of Science), **2014**, 9 (10), e 108713. DOI: 10.1371/journal.pone.0108713

**21.** **Javid A. Banday\***, Shakeel A. Shah, Ajaz H. Kanth, Alia Farozi, Humara Wani.

"In Vitro Screening for Anticancer Activity of Petroleum Ether and Ethyl Acetate Extracts of *Conyza canedensis* growing in Kashmir Region."*Advances in Biomedicine and Pharmacy,* **2015**, 2(2), 82-85.

**1. No. of Ph. Ds produced since 2013: Nil**

**2. No. of scholars pursuing Ph. D programme: 05**

**Research Papers published by Dr. H. Chisti, Assistant Professor, Department of Chemistry, NIT Srinagar for the last three years**

**Total number of papers published during last three years =06**

1. F. Mukhtar, M. A. Bhat, R. Bashir, **H. Chisti** “Assessment of surface water quality by evaluating the physico-chemical parameters and by checking the water quality index of Nigeen Basin and Brari Nambal Lagoon of Dal Lake, Kashmir” 5 (4), 1178-1187, 2014
2. F. Mukhtar and **H. Chisti** “Assessment of water quality by evaluating the pollution potential of Hazratbal basin of Dal lake, Kashmir, India” **Elixir Pollution** 66, 20420-20426, 2014.
3. F. Mukhtar, M.Y. Ansari, H. Chisti and "A statistical and mathematical approach in studying the surface water quality by evaluating the physio-chemical parameters of Hazratbal basin of Dal lake, Kashmir" Journal of Environmntal Science and Engineering (In press)
4. Mudassir Ahmad Bhat, **Hamida Chisti**, Shakeel Ahmad ShahRemoval of heavy metal ions from water by cross-linked potato di-starch phosphate polymer, **Separation Science and Technology**, [50](http://www.tandfonline.com/loi/lsst20?open=50#vol_50)([12](http://www.tandfonline.com/toc/lsst20/50/12)), 1741-1747, 2015
5. Mudassir Ahmad Bhat, Faizanul Mukhtar, **Hamida chisti**, Shakeel Ahmad Shah, Removal of heavy metal ions from waste water by using oxalic acid: an alternative method**, International Journal of Latest Research in Science and Technology,** 3( 3): 61-64, 2014.
6. Rafia Bashirand **Hamida Chisti**, Nanotechnology for the Enviroment Control and Remediation, **Hand book on Nanomaterials for Energy, Environment and Engineering, IGI, 2014, 156-183.**

**4.1.12. DEPARTMENT OF HUMANITIES AND SOCIAL SCIENCES**

**Head: Dr.M.F.Lala**

**Introduction**

The Department of Humanities and Social Science came into existence at the beginning of the Institute and has been since then contributing actively in the academics and other related affairs of the Institute. Besides engaging the classes for all the branches of Engineering in their First year, the department also offers a good number of courses at higher semester levels of different branches of engineering. The faculty of the Department is also contributing in the field of Research and Development which include guidance to M.Phil/Ph.D. Scholars and also engage additional classes for improving the communication skills of the students who have a background of regional language medium of study.

**Faculty**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S.No.** | **Name** | **Designation** | **Qualification** | **Area of specialization** |
| 01 | Dr. M. F. Lala | Associate Prof. & Head | M. B.A., Ph.D | Marketing and Finance |
| 02. | Mir Mukhtar Ahmad | Associate Professor | M. Com., L.L.B. | Marketing and HR |
| 03. | Miss Nancy Handoo | Associate Professor | M.A. English | English Language Teaching |
|  | **Number of Faculty Members engaged on Contractual basis = 04** | | | |

**The Department also engages its relevant Courses at B.Tech level of all branches of Engineering of the Institute.**

**Research Activity**

The Department has enough facilities for M. Phil and PhD Programs. The admissions for such programs are in process and the department is expecting a good response from intending M. Phil & PhD scholars.

**Social Activity**

The Department is actively involved in social service activities. A social Initiative Club has been established under which programs like blood donation camp, adult education, campaign against addiction etc are taken up vigorously.

**4.2. CENTRES**

**4.2.1. WATER RESOURCES MANAGEMENT CENTRE**

**Head of the Centre: Prof. M. A. LONE**

**1. Introduction**

WRMC was established by the Ministry of Education, Govt .of India in 1983 under new plan scheme for creation of infrastructure in the areas of emerging technology. The objectives of the Center are:

i. To undertake work on specific technological problems of relevance and importance in Water Resources Management and to make fundamental contribution to the advancement of technology.

ii. To undertake Research and Development work of a high order by mobilizing inter- disciplinary and inter- institutional collaboration.

iii. To act as a resource center for the creation of knowledge and for the collection and dissemination of Information on the subject .

iv. To undertake research works in the field of Water Resources Engineering to meet the requirements of industry, Research and Development establishments, irrigation and other water resources management agencies.

1. **Facilities Available:**

**i) Library Facilities:**

Fair amount of literature on topics related to Water Resources Engineering and other related topics is available in the main library of the Institute. Besides that a good collection of books, joumals ard reports is available in the library of Water Resources Management Centre.

**ii) Computational facilities:**

The Centre has also a Mini-computer Centre with necessary computational facilities.

1. **Laboratory Facilities:**

*Hydraulics/Fluid Mechanics Lab.*

Hydraulics /Fluid Mechanics laboratory which has been brought up to the higher standards of research and development is not only catering the requirements of the Centre but also meets the requirements of departments of Civil Engineering and Mechanical Engineering. It has got almost all necessary equipment and is being modernised with the latest equipments/instruments.

*Hydrobiology lab:*

This Lab. is being set up under the approval of the MHRD and is at the verge of its completion. The lab. after its completion will be fully equipped with the latest water and sewage testing equipments.

*Hydrometeorological Observatory:*

This observatory has also been set –up under one more scheme of MHRD and has a facility of recording all the important Hydro-meteorological parameters.

**Research And Development Activities**

A Chair Professor in Water Resources , entitled, Sheikhul Alam Sheikh Nuruddin Chair for Water Resources , has been established by the Ministry of Water Resources (MoWR) in the Centre under an agreement between the MoWR and the Institute, in 2008.

The main objective of the Chair is to carry out studies on water resources with special emphasis on assessment of effect of climate change on it and adaptation strategies in respect of planning, design and management of water resources systems of particularly Indus Basin. An important activity related to the Chair is the transfer of technology to CWC and other organizations of MOWR/GOI. Appointment of the Chair Professor was advertised but the selected person did not join and has been re-advertised.

**Future Plans**

The Centre has been nominated to act as Nodal Centre for Basin-wise studies with respect to impact of climate change on Water Resources by the MoWR , and is planning to activity participate in the study with other leading Institutes.

The Centre is planning to upgrade its Hydro-meteorological Observatory with the latest available equipments and instrumentation so that the data collection is more authentic and accurate.

**4.2.2. MAINTENANCE ENGINEERING CENTRE**

**Head of the Centre: Prof. I.K.Pandita**

**Introduction**

Maintenance Engineering Centre was originally set up during the years 1988 and 1989 in the former Regional Engineering College, Srinagar, (now National Institute of Technology, Srinagar) under Indo – Italian Friendship Program.

1. **Technical fields covered**

Existing equipment was purchased according to a survey performed in the mid ‘80ies, which considered modernization of the industrial and tourist infrastructure.

In particular, reference activities concerned: production of ironmongery parts, automation and packaging of fruit and vegetable products, automation of canning and bottling in the food-farming industry, maintenance of ropeways and ski-lifts for ski resorts, maintenance and improvement of silk looms, woodworking machinery, brick production machinery, general road transportation. Moreover, general mechanical maintenance capabilities were to be improved, with reference to local needs in mechanical construction: this put forward consideration of welding technologies and non-destructive testing. The following fields were selected for development:

1. Wear and Lubrication
2. Noise and Vibration
3. Non – destructive Testing
4. Welding and Plasma coating
5. Data acquisition and elaboration
6. **Facilities Presently Available:**

Keeping in view the above selected fields, following facilities are presently available in the centre:

1. CP30D Programmable Logic Controller.
2. MIG welding equipment - one set.
3. TIG welding equipment - one set.
4. Arc welding equipment – 2 sets.
5. Ultrasonic (Gildran MG12) flaw detector with automatic monitor.
6. Wear testing machine pin ring.
7. Wear testing machine pin disk.
8. Automatic Hardness meter.
9. Pneumatic control model fitted with electrical control.
10. Pneumatic control with double acting cylinders..
11. Pneumatic control fitted with sel1, sel2 and sel3.
12. H128D Water/ Oil Multi Pumps Test Bench.

These facilities are ready for imparting training to students and field engineers as well as doing consultancy, research and development work.

1. **Activities during the reporting year**

In view of the shortage of the staff the activities of the Centre remained limited to the Dissertation work of the M.Tech Students. However efforts are being made to make the staff available for taking the full advantage of the facilities developed.

**4.2.3. COMPUTER SERVICES CENTRE**

**Head of the Centre: Dr. Roohi Naaz Mir**

The institution has long back absorbed itself into the Computer culture and its effects can be well perceived in all over the campus. The Computer Services Centre developed under the scheme of Centre of Excellence aims to provide centralized computer/Inter-net work facilities to the teaching community, students including scholars, administrative staff and others. It has been providing latest and sophisticated computer service to all the departments and the sections.

All the Institute departments, sections and hostels are connected vide a campus wide network which covers almost all the Institute. At present Institute has two links one is 512 Kbps provided by Ernet India and other by BSNL (1Gbps internet connectivity).

The centre also manages the Website of the Institute under the NITSRI, URL address www.nitsri.net.

**5.0. STUDENT WELFARE**

* 1. **Concessions provided to students**

The SC/ST students are provided concessions in tuition fee as per Government of India Guidelines.

**5.2 Scholarships**

The Institute has been providing all sorts of financial assistance in terms of scholarships and aids to the deserving admitted students. Students admitted under reserved categories having the good academic record are eligible for post matric scholarship. Physically handicapped Students are eligible for national Scholarship on the basis of their academic performance.

The Institute offers merit scholarship to about 25% of the students based on the performance of their 1st semester examination.

Besides above science talent scholarship, Haj and WAKF scholarship & MOMA scholarships are also available for the meritorious students. The Institute also provides aid from students welfare fund to those of the students who are economically in adverse condition and not covered by other scholarships.

The types of scholarship and its amount given by various agencies are detailed as under.

**Assistance/Scholarships provided to the students** **(Year 2013-14)**

|  |  |  |  |
| --- | --- | --- | --- |
| S.No | Particulars | Scholarship | Students |
| 1. | M. Tech (GATE) Scholarship | Rs.10,000/- per month | 140 |
| 2. | Aid from Students Welfare Fund | Rs: 8000/= per year(maximum) | 121 |
| 3. | Post Matric Scholarship | Rs: 750/= + other fee | 70 Students |
| 4. | H & W Scholarship | Rs: 8000/= per year Non stopped | 03 Students |
| 5. | Merit/Merit-cum means Scholarship (MOMA) | Rs: 45,000/= per year for Day Scholars & Rs 50,000 for hostilers | 106 Fresh  264 Renewal |
| 6. | Other State Scholarships for Students of their own states | **-** | 60 students |
| 7. | S.T. Scholarships | Rs.10,23,520 | 50 students |
| 8. | S.C.  Scholarship | Awaited | 67 students |
| 9. | O.B.C . Scholarship | Rs.7,25,750 | 60 students |

**5.3 Welfare Schemes for staff**

I) Benevolent Fund : 05 staff members from non-teaching staff of the institute benefited from this fund and were provided an amount of Rs.20,000/- as aid from this fund on occasions of distress / financial hardships.

II) Staff welfare fund : 35 staff members from non-teaching staff of the Institute were provided loan free of interest out of this fund to meet some special situations limited to an amount of Rs. 10,000/-per head.

The funds under these two schemes are based on contributions made by the Institute staff towards these funds as well as some contribution out of the revenue generated through consultancies. The two funds are managed by duly constituted governing body and committee as per well laid down bylaws.

**6.0. CENTRALIZED SERVICES**

The Institute has a number of Centralised Services which facilitate the carrying out of various activities of the students and the staff effectively. A brief description of these facilities is given below**:**

**6.1. TRAINING AND PLACEMENTS**

The industrial training and placement are the two important issues of the students which are being taken care of by a well established ‘Training and Placement’ (T &P) Department of the Institute. The T & P Department is usually headed by a Senior faculty member and assisted by some administrative staff and the student representatives from the different departments.

The students have to essentially undergo a practical training period of six to eight weeks at 5th/7th semester level in projects and industry within or outside the state in Jan-Feb each year, when the Institute observes winter vacations. This training plays a vital role in exposing the students to actual industrial environment and in broadening their professional outlook. Thus, this training increases the employability opportunities of the students.

The T & P Department is making every effort to introduce the Institute to more and more companies and organisations concerned for better placement of the students. The Institute has been able to attract a good number of relevant reputed companies and organisations for on campus selection of the students. Mock tests, counselling and seminars are carried out for the students to train them for better performance in their interviews for placements. The endeavour of the T&P Department is to attain cent percent placement. Students from different departments are also involved in various relevant activities of the Training and Placement like quizs, mock tests ,mock group discussions etc.

The leading organizations in the country which offered training to our students during the year2012-13 are as follows;

**1 .**Hindustan Petroleum Corp 16. Nuclear Power Corporation of India Ltd.

2. Power Grid Corp .of India 17. NTPC Limited

3. JK PCC 18. Larsen & Toubro Limited

4. IRCON International Ltd. 19. MECON Limited

5. J & K cements 20. ONGC Limited

6. DRDO 21. J & K Power Development Corporation

7. AIR-INDIA 22. Baglihar Project

8. NHPC 23. Honda Siel cars India Ltd.

9. RITES Ltd. 24. Bharat Heavy Electricals Ltd.

10 Steel Authority of India Ltd 25. Rashtriya Ispat Nigam Ltd.

11 Hindustan Copper Ltd. 26. Indian Oil Corporation

12 MARUTI SUZAKI 27. Jakson Engineers Ltd.

13 HMT 28. Bharat Petroleum Corporation

14 ESSAR 29 . BSNL

15 Indian Oil Corporation 30. HLS Ltd

31 N I C 32 Globsyn Practice School

33 Dynamica India Pvt Ltd. 34 Kalinga Display

35 Minda Corporation Ltd. 36 Regional Telecom Trg. Centre

37 Airtel 38 Defence R&D Organisation

39 Railtel Corp. of India Ltd. 40 TATA

41 Rorrkela Steel Plant 42 Vardhman Extrusions Pvt. Ltd.

43 Bhushan Steel Ltd. 44 Jayaswal Neco Industries Ltd.

45 Indian Oil Corp Ltd. 46 Urban Envir0nmental Engg. Ltd.

47 Khyber Industries Pvt. Ltd. 48 Diesel Locomotive Works

49 Central Public Works Department 50 Paradip Port Trust

Placements during 2013-14 for batch passing out in 2014

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| S.No | Company | Civil | Mech | Electrical | ECE | Chem | Mett | CSE | IT | Total |
| 1 | Finisar  Malaisya | \_ | **\_** | 1 | \_ | \_ | \_ | 1 | \_ | 02 |
| 2 | Maruti | \_ | 4 | \_ | \_ | \_ | \_ | \_ \_ | \_ | 4 |
| 3 | Mu-Segma |  |  |  |  |  |  |  |  | - |
| 4 | M/s Aricent | \_ | \_ | \_ | 4 | \_ | \_ | 8 | 7 | 19 |
| 5 | IBM | 4 | 1 |  | 2 |  | 1 | 2 | 2 | 12 |
| 6 | L & T | \_ | \_ | 2 | 2 | \_ | \_ | 2 | 3 | 09 |
| 7 | M/S Polaris | \_ | \_ | \_ | \_ | \_ | \_ | 9 | 5 | 14 |
| 8 | Samsung India | \_ | \_ | \_ | \_ | \_ | \_ | 2 | 2 | 04 |
| 9 | M/s A B B | \_ | \_ | 5 | \_ | \_ | \_ | \_ | \_ | 05 |
| 10 | Indian Navy |  |  |  |  |  |  |  |  | R/A |
| 11 | Drishiti Software |  |  |  |  |  |  |  |  | R/A |
| 12 | M/s Atiken | \_ | \_ | \_ | 2 | \_ | \_ | \_ | \_ | 02 |
| 13 | M/s J C B | \_ | 2 | \_ | \_ | \_ | \_ | \_ | \_ | 02 |
| 14 | Resonanc | 1 | \_ | 1 | \_ | 1 | \_ | \_ | \_ | 03 |
| 15 | Mahindra | \_ | 3 | \_ | \_ | \_ | 1 | \_ | \_ | 04 |
| 16 | Etaescon | \_ | 4 | 5 | \_ | \_ | \_ | \_ | \_ | 09 |
| 17 | Reliance | \_ | \_ | \_ | 8 | \_ | \_ | \_ | \_ | 08 |
| 18 | SRI-B | \_ | \_ | \_ | \_ | \_ | \_ | 2 | 2 | 04 |
| 19 | T C S | \_ | 4 | 1 | 3 | \_ | \_ | \_ | 1 | 09 |
| 20 | Grey-B | \_ | \_ | \_ | 2 | \_ | 1 | \_ | \_ | 03 |
| 21 | Trident | 1 | \_ | \_ | 1 | 1 | \_ | \_ | \_ | 03 |
| 22 | J S W | \_ | 2 | \_ | \_ | 1 | \_ | \_ | \_ | 03 |
| 23 | Afcons | 3 | 2 | \_ | \_ | \_ | \_ | \_ | \_ | 05 |
| 24 | Sanmar | \_ | 2 | \_ | \_ | \_ | \_ | \_ | \_ | 02 |
| 25 | Infosys |  |  |  |  |  |  |  |  | 22 |
| Total | | 09 | 24 | 15 | 24 | 03 | 03 | 26 | 22 | 148 |

**6.2. CENTRAL LIBRARY**

The Institute has a Central Library named Library & information Resources Centre to cater to the needs of students, ,faculty, supporting staff and research scholars. The Central library has a separate section for SC/ST students with a stock of about 9898 books issued to them for study in a full semester.

**Resources.**The library has a collection of about 73,629 books on engineering, science, technology and humanities .There about 6,000 bound volumes of journals. The library has a collection of 52 general educational CDs and Video cassettes, 348 learning resource films, 93 technical films and 140 Engineering , science and technology soft resources. The library is on the path of enriching this collection further. Apart from the technical books and journals the library has good collection of books pertaining to art, philosophy religion and history so as to give fillip to the widening of intellectual horizons of the academic community.

At present the readers have access to library OPAC and circular section is computerized. Following e-resourcers through INDEST consortium are available online through the Library for the benefit of community in the campus;

**Electronic Resources** **URL**

**ASCE Journals online** [**www.pubs.asce.org/journals/jrns.html**](http://www.pubs.asce.org/journals/jrns.html)

**ASME Journals online** [**www.asme.org/pubs/journals**](http://www.asme.org/pubs/journals)

**IEL online http/ieeexplore.ieee.org**

**India standards internet version**

**Nature** [**www.nature.com**](http://www.nature.com)

**Pro quest science http/www.il.proquest.com/pqdauto**

**Springer verlag** [**www.springlerlink.com**](http://www.springlerlink.com)

**JCCC http/jccc.indest.informindia.co.in**

The library is also connected to IGNOU Educational Programmers through Dish antenna. The students are making use of these educational programmes.

**In addition the library offers the following services:-**

1. **Video view facility**
2. **CAS & SDI services**
3. **Reprographic services**.

**Library Timing.**

9.00 a.m. to 9.00 p.m ( During Summer)

9.00 a.m. to 8.00 p.m (During Winter)

**Services to SC/ST students.**

The library has got good collection of some ten thousand books separately meant for SC/ST students. Separate section is maintained for acquisition and processing their material. The books ate issued to the students for one semester. The aim is to help this weaker section of the society.

**6.3 CENTRAL WORKSHOP**

**In-charge Superintendent: Er. S.I.A. Qadri**

**Introduction**

the Institute has a well established Wrokshop having independent sections for all trades of Engineering. The Workshop imparts practical training in various engineering trades and conducts the Workshop Practice courses to the students of First & Second semester of all branches, 3rd semester of Chemical Engineer, 3rd & 4th semester of mechanical Engineering and Mattalurgiy & Materials Engineering Departments.

The undergraduate final year and post graduate students utilize all the facilities available in the Workshop in connection with their final semester projects and other minor projects.

The Central Workshop of the NIT is well equipped for training of students of all the engineering branches. The students are trained to acquire basic knowledge and skills about engineering materials, manufacturing practices, equipment, tools and safety precautions. The students carry out manual operations using mostly hand tools and elementary machines in the Carpentry and Pattern making shop, Bench Work and Fitting shop, Welding shop, Sheet Metal shop, Black Smithy and Forging shop, Machine shop, Foundry and Casting shop etc.

Central Workshop is having trained instructional and technical staff who impart training for operation of various machines to the students.

Central Workshop plans to equip the shops with advanced Manufacturing Technology of state of Art Technology.

**Facilities Available**

At present the common engineering trades and major facilities available in the centre consist of;

1. Machine Shop
2. Sheet Metal Shop
3. Bench Work and Fitting Shop
4. Welding Shop
5. Foundry and Casting Shop
6. Black Smithy and Forging Shop
7. Carpentry and Pattern making Shop

**New Initiatives**

The Central Workshop intends to introduce three more engineering trade sections to provide the practical training to the students of the Institute and expose them to different methods of manufacturing, materials, components, as well as procedures and software programs currently used in commercial manufacturing and assembly process. This will be of immense help in transforming students to engineers, besides the state of art facilities developed under the roof of the Central Workshop is also extended to research scholars, to perform novel and research project work. The new trade sections shall be as under;

1. CNC Engineering trade
2. Basic Electrical and Electronics trade
3. Plastic parts injection molding section

**Teaching Programmes**

* Central Workshop undertakes Workshop Practice classes of all Engineering branches at 1st & 2nd Semester students and at 3rd & 4th semester level for some branches.
* Er. S. I. A. Qadri I/C Superintendent of Workshops has been engaging the classes of Production Engineering and Manufacturing Technology Courses of B Tech 3rd & 4th semester(Mechanical) students of Mechanical Engineering in addition to his own duties.
* Mr. G. N. LolpuriSr. Instructor engages the CNC practical classes of 6th semester Mechanical Engineering Department in addition to his own work

The Workshop undertakes fabrication work of project of students of B. Tech. and also fabricates the required samples and projects of post-graduate students.

Besides it, Central Workshop provides facilities in repair & maintenance of equipments, furniture and other work orders of various departments of the Institute.

Central Workshop provides the necessary training of Workshop practice to the engineering students of some other technical Institutes of the state from time to time.

The fabrication work related to final year projects of many students from department of Mechanical Engineering, Mett. & Materials Engineering, Civil Engineering, Chemical Engineering and Electrical Engineering have been carried out in the workshop.

**Transport Services-** The Central Workshop also looks after this service in the Institute:

Transport facilities are provided to various experts and other Institute guests invited for placement of students and other academic activities. The transport facilities are also provided to the students for conducting the various technical tours. In addition, Ambulance service has been provided to the Medical Unit of the Institute which facilitates the students in getting the proper medical care during emergency. In addition of it the Institute provided 01 more Ambulance to the medical unit of the Institute to facilitate the students.

The list of vehicles presently operational in the Institute are as under:-

1. Bus (55 seater) 01 No.

2. Mini Bus (LP 709 32 seater) 02 No's

3. Ambassador Staff car 03 No's

4. Ambulance 02 No

5. Mini Truck 01 No

**6.4 Institute- Industry Interaction Cell**

The Institute has since long established an Industry Institute Interaction Cell. The main object of the Cell is to share its experience with the Industry and to utilize the human resources and all other resources available at the Institute effectively with the assistance of participating Industries.

The Industry-Institute Cell has been rejunovated in the year under report as per the decision of the NIT Council.

**6.5. CAD LABORATORIES**

The Institute has two well established CAD laboratories in civil and mechanical engineering departments as centralised facilities. Sufficient number of systems and software’s are available for the use of staff and the students.

**6.6 IGNOU PROGRAMME STUDY CENTER**

The Institute also functions as A Programme Study Canter for two UG and two diploma programmes of the Indra Ghandi National Open University (IGNOU), New Delhi. The programmes include B.Tech. in Water Resource Engineering and Construction Management. Diploma programmes include Diploma in Civil Engineering and Advanced diploma in Mechanical Engineering.

**6.7 PHYSICAL EDUCATION**

**In-Charge- Dr. Neyaz Ahmad Sheikh**

The primary objective of the department is to provide sporting and recreational facilities to the students keeping in mind the famous quotation “sound mind carries sound body”. In this direction the department of physical Education is providing various sporting and recreational facilities to the students in the main ground and in the in- door Common Hall. From last few years the department is excelling in all the sports activities like Cricket, Football, Volleyball, Chess, Carom, Badminton, Athletics etc. The main ground of the Institute was made fully operational and capable to hold almost all sporting events.

**Dr. S. K. Bukhari is presently the I/C Director Physical Education.**

**Sporting and recreational facilities available to the boy students**

1. Common Indoor Hall and TV Hall
2. Gymnasium
3. Basket ball court
4. Playground
5. Volleyball court
6. Badminton Court
7. Lawn tennis court
8. Football ground
9. Cricket ground

10- Indoor games**:** Table Tennis, Carom, Chess

**Facilities and sporting events for the Girl students:**

1. Table tennis
2. Carom
3. Chess
4. Volleyball
5. Badminton
6. Treadmill
7. Mini Gymnasium
8. Kho Kho,
9. Recreational facility: TV facility is provided to the students in hostel of their residence.

**Achievements / events:**

* + 1. Participated at Inter NIT Sports meet held at NIT Suthkal, NIT Warnagal and NIT Trichy. The following students have won he prizes in the above competition:

1. Shubhang Sharma, Ist place in Triple Jump and Ist place in long Jump
2. Akash Kumar, 3rd place in 800 m Race
   * 1. Various debates, essay competition, Art competition and concourse mania-1 was conducted.
     2. Inter semester games were held during spring –autumn 2013

**6.8 STUDENTS’ RESIDENTIAL FACILITIES**

The Institute has six boys Hostels named after famous riveres of our state. These are Chenab, Indus, Jhelum, Dal, Tawi, Jehlum Extension and two girls Hostels which provide accommodation to about 2000 students at present . The residential capacity of each hostel is as under;

**S.No. Name of the Hostel No. of boarders**

**1. Jhelum Hostel 291 students**

**2. Indus Hostel 500 students (against 380 capacity)**

**3. Chenab Hostel 400 students (against 294 capacity)**

**4. Dal Hostel 250 students**

**5. Tawi Hostel: 250 students (against 200 capacity)**

**6. Jehlum Extension. 99 students**

**5. Girls Hostel (02 No’s) 150 students.**

Prof. M. F. Lala, Professor, Humanities & Social Sciences is Dean Students Welfare and Dr. Abdul Liman is the Associate Dean Students Welfare.

Hostel / Mess wise list of wardens cum Mess Advisors and other officials is as under:

S.No Name Department Hostel assigned

1. Dr. Niyaz Ahmad Mathematics Jehlum

2. Dr. Atiqui Rehman Met.&Met. Engg. Dal & Tawi

3. Dr. Kausar Majid Chemistry Deptt. Girls

4. Er. Shabir Ahmad IT Deptt. Indus

5. Mr. G. M. Sheikh Mech. Engg Chinab

6 Dr. A. H. Bhat Electrical Engg. Day Scholar

**ACTIVITIES**

|  |  |  |  |
| --- | --- | --- | --- |
| **S.No.** | **Name of the Programme** | **Date when conducted** | **Name of the coordinator(s)** |
| 1. | Annual Day-2013 | June -2013 | Dr. Atiqur Rehman |
| 2. | Farewell- 2013 | June -2013 | Er. Sofi Shabir |
| 3. | Techvaganza -2013 | August-2013 | Er. Mushtaq Ahmad Rather |
| 4. | Orientation Progrmamme | August- 2013 | Dr. Abdul Liman |
| 5. | Fresher’s Day | 16-11-2013 | Dr. Abdul Liman |
| 6. | Vigilance Awareness Week | 28-10-2013 to 2-11-2013 | Prof. (Dr.) M F Lala |

**6.9 Student Messes:**

Our Institute has five students Messes to cater more than 1500 students on the campus including girls and M.Tech./PhD Scholars. There are four boys’ messes and one girls mess adjacent to the Hostels. The three messes namely Chinab, Indus and Girls have been outsourced since last three years and from the current year i.e. 2012 in addition to the above one more mess namely Tawi has been outsourced. Jehlum Mess is under the direct control of Mess management. All the messes are being in operation under over all supervision of Mess Management with the co-operation and co-ordination of student mess committees of the concerned hostel messes. Each Mess attached to different hostels is in the charge of the Warden cum Mess Advisor.

**Achievements and Activities during the year**:

The Mess Management arranged the catering facilities for INSPIRE programme for the secondary students sponsored by DST in March & May 2012 through out sourced contractors. The Mess management has procured dinning chairs and tables and installed water purifier in each mess to facilitate the students in general.

The efficiency of Mess office work has improved by installing Photocopiers, computer system and students are able to have information regarding their monthly bills and payment as and when required.

**New Initiatives:**

The mess management is planning to modernize the Students Messes by installing latest kitchen equipments and renovation work of the messes will be taken up very soon by the concerned departments.

**6.10. RESIDENTIAL AND SHOPPING FACILITIES**

The Institute being a residential Institute therefore campus provides residential facilities to majority of its employees comprising of the faculty, administrative staff and the other supporting staff .

In addition to dedicated lodge for the Director and a well furnished guest house located on the bank of the world famous Dal Lake, the residential campus has the following staff quarters:

1. Directors lodge : 01
2. P-type Quarters : 08
3. A-type Quarters : 24
4. L-type Quarters : 42

The Institute also has facilities of day to day needs, like food commodities, stationery, tailoring facilities and STD facilities etc. for the students and the staff. There are number of shops within the campus to cater to the daily needs of the residents and non-resident employees and the students of the Institute, details given as follows:

1. General Provision & Stationery Stores : 024
2. Barber Shop : 01
3. Tailor Shop : 01
4. Tea Stall / Restaurants : 03
5. STD Stall : 03
6. Cafeteria : 01

**6.11. MEDICAL UNIT**

The Medical Unit of the Institute is headed by a qualified and experienced Medical Officer and manned by trained Lab. and other paramedical staff. A lady doctor is available daily on part time basis. The Medical Unit has a two storied separate building spread over an area of 303 sq.mtr. with a solar ward for providing indoor facilities to the staff and the students. Apart from providing facilities for consultations and investigations, medicines are issued to the students and staff free of any cost. The Unit has two Ambulances available to cater to emergencies round the clock. Both Doctors are on call. In the recent past the hospital has been modernized and has been equipped with the latest diagnostic tools like the Haematological and Biomedical equipment and a fully automatic ECG unit. The Medical Unit also ensures hygienic in the students messes and restaurants / tea stalls by advisories and inspections.

Annual statement for the year 2013-14:

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Total number of Patient’s examined** | | **Dressing and minor surgical interventions** | | **Patient’s referred to various Hospitals** | | **Total Lab. Investigations undertaken** | | **Total Patient admitted** | |
| Students | Staff | Students | Staff | Students | Staff | Students | Staff | Students | Staff |
| 8150 | 2929 | 1167 | 263 | 191 | 23 | 783 | 475 | 21 | 05 |
| 11079 | | 1430 | | 214 | | 1258 | | 26 | |

Total number of patients ----12749.

**6.12. BANK**

A fully computerized branch of J&K bank is functioning within the Institute premises having net worked ATM. The bank has installed internet banking / phone banking/mobile banking in the branch. The bank also extends swift facility of house building loans, consumer’s loans and many other small loans to the staff and educations loans to the students.

**6.13. TELEPHONE EXCHANGE**

Our Institute has a fully automated telephone exchange providing internal and external phone connectivity**.**

**6.14. POST OFFICE**

Though a Post and Telegraph office operates near the campus at Hazratbal, at one and a half kilometer distance, the Institute has taken step to get a Post Office established in the Campus itself for benefit of students.

**7.0 ACHIEVEMENTS & INITIATIVES**

The Institute continued its efforts during the year 2011-2012 towards evolving directions to further growth and dissemination of scientific and technological knowledge. Brief outline of the major achievements are presented at below***:***

1. **Research and Development (R&D) Activities**

The various Departments and Centres continue to carry out the research and development work in their respective areas of specializations. During the year following remained the main contribution in the R&D field:

1. **Research Papers Published**
2. Journals
3. Conferences
4. **Ph.D.**
5. Awarded
6. Pursuing
7. Admitted
8. **M. Phil**
9. Pursuing
10. Admitted
11. **R&D Projects**
12. In Progress
13. Submitted
14. **Sponsored Research and Industrial Consultancy**

The various Departments and Centres of the Institute continue to work on sponsored research and industrial consultancy projects. During the year the work continued on 06 sponsored R &D projects amounting to about Rs.210.00 lacs.

A large number of consultancy assignments were also taken up during the year for an approximate amount of Rs.50.00 lacs.

1. **Acquisition of additional Campus**

* Steps for acquisition of additional land for the campus continued during the year and the high level Committee constituted for the purpose identified land at two placed. The final recommendations of the Committee for a acquisition of additional campus of 64 acres is under active consideration for final decision by the government of J&K and Government of India.

1. **Seminars , Workshops and other programmes conducted**

* National Conferences ---- 02
* Short Courses / Workshops ---- 04
* INSPIRE Program ---- 03

1. **Placement**

During the year under report the Department succeeded in involving about 25 companies and other agencies in the process of placement/trainings of the students and in some departments the campus placement was about 90%. In addition some students were appointed through off-campus selections and good number of students has gone for higher studies.

1. **Convocation 2013**

The Annual Convocation of the institute of the year 2013 was held on September 22, 2013 at SKICC, Srinagar. Hon’ble Minister of State, Ministry of Human Resource Development, Government of India, Shri Shashi Tharoor was Chief Guest on the occasion. Gold medals to 10 students for being toppers of B.tech. and M.Tech. programmes in different branches were awarded. In addition 02 Ph.D., 45 M.Tech., and 386 B.Tech. degrees were also awarded on the occasion. Further, 52 Gold medals to toppers of various branches from batches 2003 to 2011 were also awarded during the Convocation 2013.

1. **Inter NIT Technical Festival**

A technical festival named “Techwaganza 2013” was conducted by the Institute during August 2013. Students from various Institutes of the Kashmir valley and some NITs in addition to large number of students of the Institute participated in the festival showcasing their technical talents. Some specialized expert lecturer were also arranged during the festival.

**8.0. THE COUNCIL, BOG AND OTHER COMMITTEES**

8.1. INSTITUTE COUNCIL

|  |  |  |
| --- | --- | --- |
| (a) | Minister of Human Resource Development, Government of India. | Chairman |
| (b) | Secretary,  Department of Secondary & Higher Education,  Ministry of HRD,  Government of India. | Member |
| (c) | Principal Adviser (Education),  Planning Commission. | Member |
| (d) | Secretary,  Department of Science & Technology, Government of India. | Member |
| (e) | Director General,  Council of Scientific & Industrial Research, Government of India. | Member |
| (f) | Secretary,  Department of Biotechnology,  Government of India. | Member |
| (g) | Secretary,  Atomic Energy,  Government of India. | Member |
| (h) | Secretary,  Department of Information Technology, Government of India. | Member |
| (i) | Secretary,  Department of Space,  Government of India. | Member |
| (j) | Special Secretary / Addl. Secretary / Educational Adviser (T),  Department of Secondary & Higher Education,  Ministry of HRD,  Government of India. | Member |
| (k) | Chairman,  University Grant Commission. | Member |
| (l) | Chairman,  All India Council of Technical Education. | Member |
| (m) | Two Chairmen, Board of Governors of National Institutes of Technology (by rotation). | Members |
| (n) | Four Directors of the National Institutes of Technology (by rotation). | Members |
| (o) | One Director of Indian Institute of Technology (by rotation). | Member |
| (p) | One Director of Indian Institute of Management (by rotation). | Member |
| (q) | Two Secretaries of Higher / Technical Education  from states where NITs are located (by rotation). | Members |
| (r) | Two persons from Industry nominated by the Central Government. | Members |
| (s) | Financial Adviser,  Ministry of Human Resource Development, Government of India. | Member |
| (t) | Joint Secretary, (Technical Education), Joint Educational Adviser (Technical Education), Ministry of Human Resource Development  Government of India. | Member-Secretary |

8.2. BOARD OF GOVERNORS

|  |  |  |
| --- | --- | --- |
| ***Chairman*** | Nomination under Section 11 of NIT Act, 2007 (29 of 2007) Clause (a) | Shri Wajahat Habibullah Sahib, IAS  (Chairperson, National Commission for Minorities),  Government of India,  5th Floor, Lok Nayak Bhawan,  Khan Market,  New Delhi.110003 |
| ***Ex-Officio*** | (b) | Prof. Rajat Gupta  Director,  National Institute of Technology Srinagar, Hazratbal, Kashmir-190006 |
| *Two persons not below the rank of the Joint Secretary to the Government of India to be nominated by the Central Government from amongst persons dealing with technical education and finance* | (c) | Ms. Amita Sharma, IAS  Additional Secretary (TE),  Ministry of Human Resource Development,  Department of Higher and Technical Education,  Government of India,  New Delhi – 110 001. |
| (c) | Mr. Yogendra Tripathi, IAS  Joint Secretary & Financial Advisor,  Department of Higher Education,  Ministry of Human Resource Development,  Government of India,  Shastri Bhawan, New Delhi. |
| *Two persons to be nominated by the Government of the State in which the Institute is situated, from amongst persons, who, in the opinion of that Government, are technologists or industrialists of repute* | (d) | Commissioner Secretary,  Higher & Technical Education Dept.,  Government of Jammu and Kashmir,  Civil Secretariat, Srinagar / Jammu. |
| (d) | Mr. Dharam Bir Singh Oberoi (MLC)  C/O Arian Traders,  Rajbagh, Srinagar. |
| *Two persons, at least one of whom shall be a woman, having special knowledge or practical experience in respect of education, engineering or science to be nominated by the Council* | (e) | Prof. Furqan Qamar,  Vice-Chancellor,  Central University of Himachal Pradesh,  Dharamshala, District Kangra-176215 |
| (e) | Dr. Shabana Aftab,  Professor & Head,  Department of Applied Chemistry,  Government College of Engineering and Technology, Jammu. |
| *One Professor and one Assistant Professor or a Lecturer of the Institute to be nominated by the Senate* | (f) | Prof. Ajaz Hussain Mir,  Professor,  Electronics & Communication Engg. Deptt.,  National Institute of Technology Srinagar. |
| (f) | Dr. G. R. Khan,  Assistant Professor,  Physics Department,  National Institute of Technology Srinagar. |
| ***Member-Secretary*** | Section 18 Clause (2) | Prof. Fayaz Ahmad Mir,  Registrar I/C,  NIT, Srinagar. |

8.3. FINANCE COMMITTEE

|  |  |  |
| --- | --- | --- |
| ***Chairman*** |  | Shri Wajahat Habibullah, IAS  Chairman Minority Commission,  Government of India,  House No.9A,  Lodhi Estate,  New Delhi –110 0033. |
| ***Members:***  Two persons nominated by the Central Government | 1  2 | Shri Rajesh Singh,  Director NITs,  MHRD,  Department of Secondary & Higher Education,  Government of India,  Shastri Bhwan  New Delhi – 110 001.  Shri Naveen Soi,  Director (Finance), MHRD,  Department of Secondary & Higher Education,  Government of India,  Shastri Bhawan,  New Delhi – 110 001. |
| Two persons nominated by the BOG from amongst its members | 1  2 | Dr. Shabana Aftab,  Professor & Head,  Department of Applied Chemistry,  Government College of Engineering and Technology,  Jammu.  Prof. Ajaz Hussain Mir,  Professor ,  Electronics & Comm. Engg. Deptt.,  National Institute of Technology Srinagar. |
| Director  (Ex-officio) |  | Prof. Rajat Gupta  Director,  National Institute of Technology,  Hazratbal, Srinagar-190006 |
| Member Secretary  (Ex-officio) |  | Prof. Fayaz Ahmad Mir,  Registrar I/C,  National Institute of Technology Srinagar. |

**8.4. SENATE**

|  |  |  |
| --- | --- | --- |
| Chairman |  | Prof. Rajat Gupta,  Director, ex-officio  National Institute of Technology,  Hazratbal, Srinagar-190006. (J&K), |
| *Three persons, one of whom shall be a woman, not being employees of the Institute to be nominated by the Chairperson in consultation with the Director, from amongst educationists of repute, one each from the field of Science, Engineering and Humanities* | 1 | FIELD OF SCIENCE:  Prof. Veena Chowdhary,  Centre for Polymer Science,  Indian Institute of Technology,  Hauz Khas, New Delhi. |
| 2 | FIELD OF ENGINEERING:  Prof. P. D. Porey,  Director,  Sardar Vallabhbhai National Institute of Technology Surat,  Gujarat-395007 |
| 3 | FILED OF HUMANITIES:  Prof. Abdul Wahid,  Vice-Chancellor,  Central University of Kashmir,  Srinagar (J&K) |
| ***The Professors appointed or recognized as such by the Institute for the purpose of imparting instructions in the Institute.*** | 1 | All Professors |
| **Such other members of the staff as may be laid down in the Statutes** | 1 | All Dean, HoDs, Associate Deans, Controller of Examination, Co-ordinator 1st & 2nd Semester, Chairman Library Committee, Librarian and DPE. |
| **Secretary** | Prof. Fayaz Ahmad Mir,  Registrar I/C,  NIT, Srinagar | |

8.5. BUILDING AND WORKS COMMITTEE

|  |  |  |
| --- | --- | --- |
| Chairman |  | Prof. Rajat Gupta  Director,  National Institute of Technology,  Hazratbal, Srinagar-190006 |
| ***Members:***  **Nominated by MHRD and IFD New Delhi** | 1  2 | Director OR  Deputy Secretary (NITs),  MHRD,  Department of Secondary & Higher Education,  Government of India, New Delhi – 110 001.  Representative of \*  Integrated Finance Division (IFD) |
| One person nominated by the Board of Governors |  | Syed Shuja Hussain,  Former Chief Engineer (Civil)  PWD J&K Government  R/o:Al-Manzir, Rajbagh, Srinagar |
| Dean,  Planning & Development |  | Prof. M. A. Lone,  Civil Engineering Department,  NIT Srinagar |
| Nominee of the CPWD / State PWD | **1**  **2**  **3**  **4** | Chief Engineer,  North Zone, CPWD,  Chandigarh  Er. R. G. Meena,  Executive Engineer (Civil),  Central Division,  CPWD, Humhama,  Srinagar.  Er. Surender Singh,  SE (Electrical),  Chandigarh Central Electrical Circle-II,  Central Public Works Department (CPWD),  Sector 7(B),Chandigarh-160019.  Er. A. A. Khan,  Executive Engineer,  Electric Division 4th  Srinagar. |
| Secretary |  | Prof. Fayaz Ahmad Mir,  Registrar I/C,  NIT, Srinagar. |

**The meetings of the above statutory committees were conducted as detailed below:**

|  |  |
| --- | --- |
| **Name of Statutory Committee** | **Date of the meeting** |
| **Senate** | * 1. **20-04-2013**   2. **15-09-2013**   3. **30-12-2013** |
| **Building Works Committee** | * + 1. **24-04-2013**     2. **01-01-2014** |
| **Finance Committee** | * + - 1. **25-04-2013**       2. **18-09-2013**       3. **08-09-2013** |
| **Board of Governors** | 1. **25-04-2013** 2. **18-09-2013** 3. **08-09-2013** |