

VISION

To establish a unique identity of a pioneer technical Institute for NIT Srinagar by developing a high quality technical manpower and technological resources that aim at economic and social development of the nation as a whole and the region in particular.

MISSION

The broad mission of NIT Srinagar is to create a strong and transformative technical educational environment in which fresh ideas, moral principles, research and excellence nurture and technically education and broadly talented engineers, future innovators and entrepreneurs graduate not only to understand the needs and the problems of the industry, the society, the state, and the nation, but also address to the same with the highest degree of confidence, professional excellence and engineering ethics.

OBJECTIVES

- *To provide the best educational infrastructure for imparting high class education in science and technology and a creative atmosphere for inter-disciplinary research both by the students and the faculty.*
- *To enhance the quality of teaching by strengthening the teachers professional capabilities to meet the growing educational aspirations of students.*
- *To upgrade the syllabus and re-frame the course curriculum periodically in order to produce creative and capable engineers who meet effectively the growing job requirements.*
- *To inculcate amongst the students the highest standards of honesty, accountability, moral integrity, tolerance for diversity, and respect for ethnic and religious differences so as to make them good human beings.*
- *To develop amongst the students a strong personal commitment, as a member of the engineering professional, towards social outreach activities.*

- *To produce engineers having ethics of engineering profession, complete confidence in decision making and a good social outlook in all their activities so that they perform their duty to the best satisfaction of the organization and to the society.*
- *To maintain global standards in student-faculty ratio, scientific research output, research publications in technical journals of repute, and placement of students.*
- *To participate in and contribute to nation building through various flagship schemes of the Government of India / State governments requiring technological interventions thereby spurring economic growth for the welfare of the masses.*
- *To provide "research and development consultancy" to the respective industries so as to foster a healthy industry-academia partnership and develop a competitive edge to the indigenous manufacturing.*



FOREWORD

It gives me immense pleasure to present the 57th Annual Report of National Institute of Technology Srinagar, Hazratbal, Kashmir (J&K) for the year 2016-17. The Institute formerly known as Regional Engineering College Srinagar was established in the year 1960, offers eight (08) B.Tech programmes in various branches of Engineering, eleven (11) P.G. programmes (M.Tech./ M.Sc.) in addition to Ph.D programmes in all the Departments and also M.Phil programme in the faculty of Applied Sciences. During the period under report, faculty members of the Institute 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. Apart from these activities, many R&D sponsored projects are in progress.

The Institute rendered useful services to other sister Institutions and continued to offer expertise and consultancy services to various government/semi-government/public and private organizations. The Institute has also signed MoUs with some NITs, IITs, Research Organizations to strengthen teaching learning and research projects.

The Department of Training and Placement is making all the efforts in having National and Multinational companies for placement of



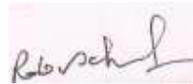
students of the Institute. Many of them visited the Campus for placement. A good number of students have been placed through Campus Selection.

The students are also taking active part in co-curricular and extra-curricular activities within and outside the Institute. Students of the Institute participated in the sports activities outside the Institute also and won medals for the Institute.

During the period under report, the guidance of our Hon'ble Chairman, Board of Governors Dr. M. J. Zarabi is highly appreciated.

I place on record my sincere gratitude to Ministry of Human Resource Development, Department of Higher Education, 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 day to day affairs of the Institute smoothly.

At the end, I record my appreciation for the team under the overall supervision of Dr. Nisar Ahmad Mir, Registrar of the Institute for compilation of the Annual Report for the year 2016-17.



(Prof. Rakesh Sehgal)

Director



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1.0. INTRODUCTION

1.1. HISTORICAL BACKGROUND

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.

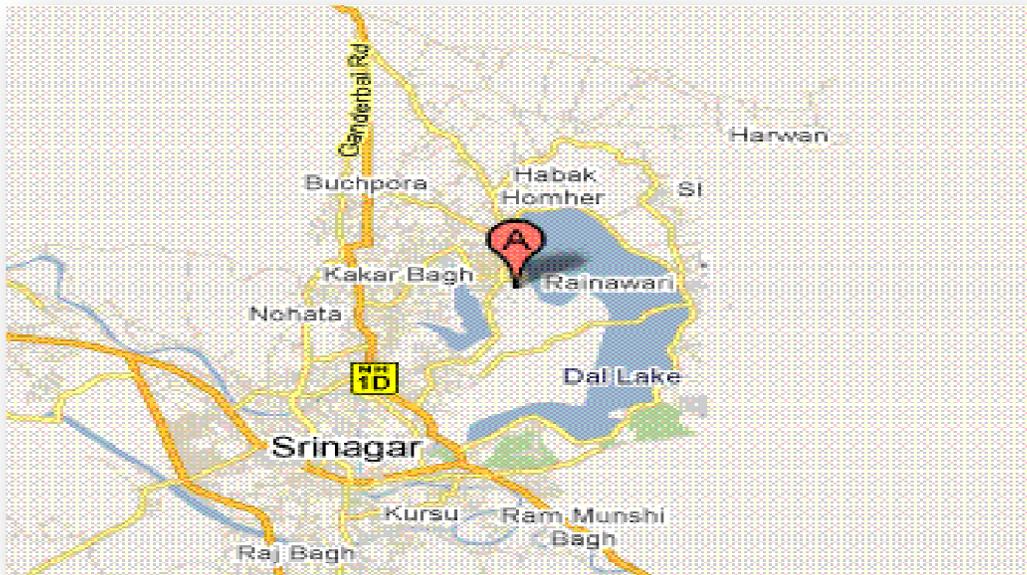
In 2003 the Institute was declared as National Institute of Technology with Deemed University Status by the Ministry of Human Resource Development (MHRD), Govt. of India and University Grants Commission (UGC). Even going through the difficult times in the valley since 90's, the Institute has proved its mettle through its output at various levels and has become a prestigious Institute of the region. The Institute also suffered a huge infrastructural loss due to 2014 floods and is presently trying to overcome it.



1.2. *THE CAMPUS & ITS LOCATION*

The Institute is located in Srinagar, the summer capital of J&K at Hazratbal, Srinagar 10 KMS 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 and valley by a motorable road and other transport service.

The campus is about 22 KMs away from the Srinagar International Airport. It falls on National Highway to Ladakh. The nearest railway station is Nowgam which is located about 18 km from the Institute campus. The campus is connected with Jammu / Delhi by Srinagar-Jammu highway which 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 two 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.

1.3 ADMINISTRATION

National Institute of Technology Srinagar(J&K) 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 member 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 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*

- 4- 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 , 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 of two years (four semesters) for full time students and 3 years for those admitted under part-time. Part time enrolment is given only to sponsored candidates.
- Doctor of Philosophy (Ph.D.) degree is awarded by the Faculty of Engineering in all branches of engineering available in the departments.
- 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.Phil. 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 Institute offered various academic programmes comprising of (08) B.Tech. programmes in eight branches of engineering; (10) M. Tech. programmes in 05 engineering departments, M.Phil. programme in Sciences and HSS departments and Ph.D. programme in all the engineering, science and HSS departments.

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 Science& Engineering, andviii) Information Technology

Allied Departments

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

Centres

i)Water Resources Management Centre ii)Maintenance Engineering Centre
iii)Computer Services Centre iv) Central Research Facilities Centre v)
Innovation, Incubation & Entrepreneurship Development 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 | Geotechnical Engineering | Civil Engineering |
| 4 | Transportation Planning & Engineering | Civil Engineering |
| 5 | Communication and Information Technology | Electronics & Comm. Engg. |
| 6 | Micro Electronics | Electronics & Comm. Engg. |
| 7 | Mechanical System Design | Mechanical Engineering |
| 8 | Industrial Tribology and Maintenance Management | Mechanical Engineering |

9 Electric Power and Energy System
10 Chemical Engineering

Electrical Engineering
Chemical Engineering

M.Sc. Degree Programme

1 Applied Physics

Physics Department

M. Phil Programme

The Institute offers full- time /part- time M.Phil. 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 150 research** fellowship have been sanctioned with Scholarships at the rate as approved by MHRD from time to time.

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) New Delhi.50% of sanctioned intake of 632 seats for B.Tech. is filled

from domicile candidates of J&K State and 50% from candidates of other States, purely based on the merit/ranking in JEE main examination through a centralized on-line counselling system devised by the MHRD. In addition the institute also has a sanctioned intake of 53 seats for students under DASA programme.

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 in-service 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 candidate 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.

Institute Academic Calendar for the Year-2016-17

ACADEMIC CALENDAR OF NIT SRINAGAR FOR THE YEAR 2016-17				
SPRING SESSION				
ACTIVITY	DATE		DAY	
	From	To	From	To
1. a. Registration	25-02-2016	29-02-2016	Thursday	Monday
b. Late Registration	01-03-2016	04-03-2016	Tuesday	Friday
2. a. Teaching (8th Semester)	01-03-2016	10-06-2016	Tuesday	Friday
b. Teaching for other semesters	01-03-2016	17-06-2016	Tuesday	Friday
3. 1 st Minor	11-04-2016	14-04-2016	Monday	Thursday
4. Extra-Curricular Activities	15-04-2016	17-04-2016	Friday	Sunday
5. 2 nd Minor	16-05-2016	19-05-2016	Monday	Thursday
6. Alumni Day	21-05-2016	22-05-2016	Saturday	Sunday
7. Annual Day	28-05-2016		Saturday	
8. B.Tech Project Viva	09-06-2016	11-06-2016	Thursday	Saturday
9. Major for 8th semester	13-06-2016	23-06-2016	Monday	Thursday
10. Major for other even semesters	24-06-2016	08-07-2016	Friday	Friday
11. Supplementary for odd semesters	11-07-2016	19-07-2016	Monday	Tuesday
12. Result Declaration for 8th Semester	27-06-2016		Monday	
13. M.Tech Dissertation Viva	Latest by 30.06.2016		Thursday	
14. M.Tech Result Declaration	Latest by 04.07.2016		Monday	
15. Result Declaration for all semester	15-07-2016		Friday	
AUTUMN SESSION				
ACTIVITY	DATE		DAY	
	From	To	From	To
1. a. Registration	20-07-2016	21-07-2016	Wednesday	Thursday
b. Late Registration	22-07-2016	25-07-2016	Friday	Monday
2. Teaching	22-07-2016	10-11-2016	Friday	Thursday
3. Tech Fest	29-07-2016	31-07-2016	Friday	Sunday
4. Freshers Orientation Day	3 rd week of August			
5. 1 st Minor	29-08-2016	01-09-2016	Monday	Thursday
6. Extra-Curricular Activities	02-09-2016	04-09-2016	Friday	Sunday
7. CONVOCATION 2016	Last Week of September/ First Week of October			
8. 2 nd Minor	03-10-2016	06-10-2016	Monday	Thursday
9. Major for odd semesters	14-11-2016	28-11-2016	Monday	Monday
10. Supplementary for even semesters	01-12-2016	12-12-2016	Thursday	Monday
11. Result Declaration for all Semesters	12-12-2016		Monday	
11. WINTER VACATIONS (for students)	13-12-2016	24-02-2017	Tuesday	Friday

2.6. STUDENTS

The student strength of the Institute is around 2600. The Institute has been able to attract the students from all parts of the Country. Students of NIT Srinagar in addition to doing well in academics, also take part in other co-curricular and extra-curricular activities as well with lot of enthusiasm. 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.Phil./ 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:-

<i>SUPERVISOR</i> 40%	<i>EVALUATION BOARD</i> 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:-

- a) 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-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, Auditorium, Specious Guest House are under consideration of the authorities to meet the additional requirements of the accommodation resulted from the increased in-take of the students and from other co-curricular activities.

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

<u>S.No:</u>	<u>Position</u>	<u>Staff sanctioned</u>	<u>Staff in position</u>
<i>1.Academic Staff:</i>			
	<i>Director</i>	<i>01</i>	<i>01</i>
	<i>Faculty</i>	<i>198</i>	<i>78+8 (Trainee Teachers)</i>
<i>2 Sr. Administrative Staff</i>			
		<i>20</i>	<i>07</i>
<i>3. Non-Teaching Staff</i>			
		<i>198</i>	<i>244</i>

NB:The excess staffs due to restructuring of the non- teaching staff of the NITs as per MHRD orders.

3.0 ACADEMIC STATISTICS

3.1. COURSES OFFERED

B.Tech. Courses

<i>DISCIPLINE</i>	<i>SANCTIONED INTAKE</i>	<i>ADMISSIONS made 2016-17</i>
<i>Chemical Engineering</i>	<i>77 + 3(D.A.S.A)</i>	<i>42 + nil</i>
<i>Civil Engineering</i>	<i>123 + 10(D.A.S.A)</i>	<i>86 + nil</i>
<i>Computer Science Engineering</i>	<i>62 + 7(D.A.S.A)</i>	<i>49 + 4</i>
<i>Electrical Engineering</i>	<i>77 + 7(D.A.S.A)</i>	<i>56 + nil</i>
<i>Electronics and Communication Engineering</i>	<i>77 + 7(D.A.S.A)</i>	<i>45 + nil</i>
<i>Information Technology</i>	<i>62 + 7(D.A.S.A)</i>	<i>38 + nil</i>
<i>Mechanical Engineering</i>	<i>77 + 9(D.A.S.A)</i>	<i>57 + nil</i>
<i>Metallurgical Engineering</i>	<i>77 + 3(D.A.S.A)</i>	<i>27 + nil</i>
<i>Total</i>	<i>632 + 53(D.A.S.A)</i>	<i>400 + 4</i>

M.Tech. Courses

<i>DISCIPLINE</i>	<i>INTAKE</i>	<i>ADMISSIONS 2016-17</i>
Water Resources Engineering (Civil Engineering Department)	15	10
Structural Engineering (Civil Engineering Department)	25	22
Communication and Information Technology (Electronics and Comm. Engineering)	25	19
Micro Electronics	13	09
Mechanical System Design (Mechanical Engineering)	25	18
Industrial Tribology and Maintenance Management	26	15
Electric Power & Energy System	26	20
Transportation Engg	18	17
Geo-Tech	17	14
Chemical Engineering	18	02
<i>Total</i>	<i>208</i>	<i>147</i>

M.Sc. Physics

<i>DISCIPLINE</i>	<i>INTAKE</i>	<i>ADMISSIONS 2016-17</i>
M.Sc. Physics	25	07

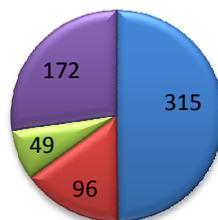
M.Phil / Ph.D. Programmes: 150 annually.

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

3.2.1 Seat Matrix- B.Tech Level 2016-17

Quota	Degree	Branch	OP	OPPH	SC	SCPH	ST	STPH	OBC	OBCPH	TOTAL
Other State (50%)	B.Tech	CSE	15	01	05	-	02	-	08	-	31
		IT	15	-	05	-	03	-	08	-	31
		Civil	30	01	08	01	05	-	16	-	61
		Mech	19	-	06	-	03	-	10	01	39
		Elect	19	01	06	-	03	-	10	-	39
		E&C	18	-	06	-	03	-	10	01	38
		Chem	19	01	06	-	03	-	10	-	39
		M&MT	18	-	06	-	03	-	10	01	38
		Total	153	04	48	01	25	-	82	03	316
Home State (J&K) (50%)	B.Tech.	CSE	15	-	04	-	03	-	08	01	31
		IT	15	01	04	-	02	-	08	01	31
		Civil	31	01	09	-	04	-	16	01	62
		Mech	18	01	06	-	03	-	10	-	38
		Elect	18	-	06	-	03	-	10	01	38
		E&C	19	01	06	-	03	-	10	-	39
		Chem	18	-	06	-	03	-	10	01	38
		M&MT	19	01	06	-	03	-	10	-	39
		Total	153	05	47	-	24	-	82	05	316

Seat Matrix -B.Tech. Level 2016-17
Number of students shown in the chart



- OP
- SC
- ST
- OBC

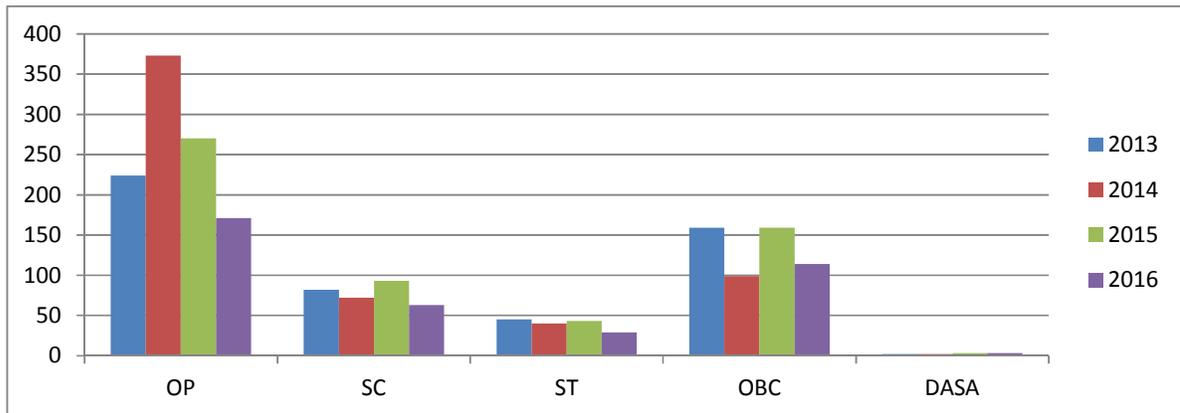


3.2.2 Students enrolment -Category wise

B.Tech. :

<i>Students Enrolled</i>							
<i>Year</i>	<i>Batch</i>	<i>OP</i>	<i>SC</i>	<i>ST</i>	<i>OBC</i>	<i>DASA</i>	<i>Total</i>
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.	27	10	06	22	02	67
	Met.	29	10	06	08		53
	C. Sc.	25	07	05	18		55
	I.T.	23	08	06	08		45
		222	82	45	159	02	510
2014	Civil	71	15	08	24		118
	ELE	47	08	05	13		73
	ECE	48	09	04	12		73
	Chem	39	09	05	12		65
	Mech.	47	09	05	13	01	75
	Met.	43	08	05	10		66
	C. Sc.	38	06	04	09	01	58
	I.T.	38	08	04	06		56
		371	72	40	99	02	584
2015	Civil	51	17	07	34	01	110
	ELE	32	12	06	23		73
	ECE	32	12	05	22		71

	Chem	36	12	05	09		62
	Mech.	35	12	06	21		74
	M&ME	26	11	04	10		51
	C. Sc.	29	08	05	16	02	60
	I.T.	24	09	05	18		56
		265	93	43	153	03	557
2016	Civil	32	16	08	22		78
	ELE	22	09	05	18		54
	ECE	18	07	04	15		44
	Chem	21	08	01	07		37
	Mech.	24	08	02	21		55
	M&ME	13	04	02	06		25
	C. Sc.	25	06	05	12	03	51
	I.T.	16	05	02	13		36
		171	63	29	114	03	380



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



M.Tech. :

<i>Admission Made</i>						
<i>Year</i>	<i>Programme</i>	<i>OP</i>	<i>SC/ST</i>	<i>Sponsored</i>	<i>OBC</i>	<i>Total</i>
2015	Water Resource Engg.	03	01/01	-	-	05
	Mechanical System Design	08	02/01	01	03	15
	Structural Engineering	12	03/01	03	03	22
	Industrial Tribology and Maintenance Management	09	02/-	01	01	13
	Communication Information Technology	07	01/	05	-	13
	Electric Power & Energy System	11	03/01	01	01	17
	Transportation Engg	06	01/-	01	-	08
	Geo-Tech	06	02/01	03	02	14
	Micro Electronics	05	01/-	02	02	10
	Chemical Engineering	02	--	01	-	03
	TOTAL	69	16/5	18	12	120
2016	Water Resource Engg.	06	01/01	02	-	10
	Mechanical System Design	06	04/-	05	03	18
	Structural Engineering	13	03/01	03	02	22
	Industrial Tribology and Maintenance Management	09	02/-	03	01	15
	Communication Information Technology	12	01/01	05	-	19
	Electric Power & Energy System	11	02/01	05	01	20
	Transportation Engg	06	02/01	05	03	17
	Geo-Tech	06	01/01	05	01	14
	Micro Electronics	05	01/-	02	01	09
	Chemical Engineering	02	--	01	-	03
	TOTAL	76	17/06	36	12	147

M.Sc. Physics:

<i>Year</i>	<i>OP</i>	<i>SC/ST</i>	<i>Sponsored</i>	<i>OBC</i>	<i>Total</i>
2015	03	-	-	-	03
2016	04	-	-	03	07

3.2.3. Students' Enrolment Gender wise

a) B. Tech

Batch	CIVIL		ELE		ECE		CHEM		MECH		METT		CSE		IT		TOTAL M/F
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
2013	90	08	67	06	59	09	44	07	63	04	49	04	45	10	42	03	510
2014	109	09	61	12	64	09	54	11	74	01	56	10	50	08	48	08	584
2015	96	14	60	13	58	13	56	06	74	-	41	10	59	01	48	08	557
2016	64	14	50	04	35	09	31	06	55	-	21	04	48	03	32	04	380
Total	359	45	238	35	216	40	185	30	266	05	167	28	202	22	170	23	2031

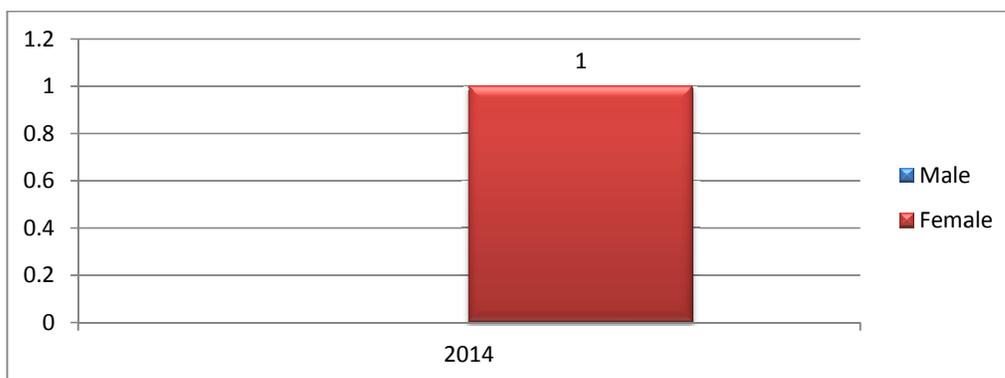
b) M. Tech. :

Batch	WIRE		Mech. System Design		Structural Engg		Comm. & Information Tech		Industrial Tribology & Maintenance Management		Elect. Power & Energy System		Transportation Engg		Geo-Tech.		Micro Electronics		Chemical Engg.		M.Sc. Physics-	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
2015	5	-	15	-	19	03	05	08	13	-	16	01	07	01	11	03	07	03	02	01	02	-
2016	09	01	13	05	19	03	12	07	13	02	14	06	16	01	13	01	05	04	3	-	06	01

c) M. Phil(Faculty of Science) :

<i>Batch</i>	<i>Chemistry</i>		<i>Physics</i>		<i>Math</i>	
	<i>M</i>	<i>F</i>	<i>M</i>	<i>F</i>	<i>M</i>	<i>F</i>
2014	-	01	-	-	-	-
2015	-	-	-	-	-	-
2016	-	-	-	-	-	-
Total	-	01	-	-	-	-

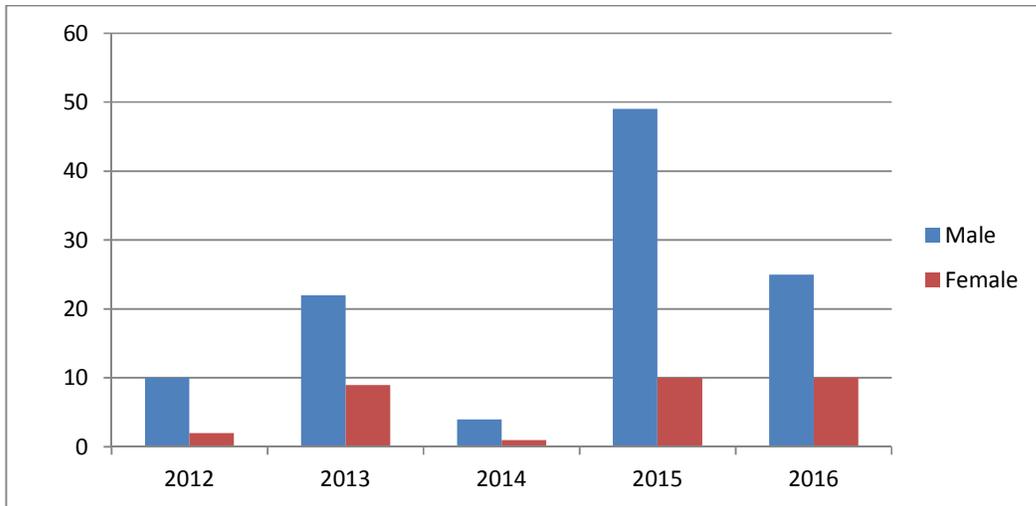
M.Phil. Enrolment Gender wise (Faculty of Science)



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

<i>Year</i>	<i>ECE</i>		<i>ELE</i>		<i>CIT/CSE</i>		<i>MECH</i>		<i>Chemica</i>		<i>MMED</i>		<i>CIVIL</i>	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F
2012	-	01	-	-	02	01	08	-	-	-	-	-	-	-
2013	05	07	5	-	02	-	10	02	-	-	-	-	-	-
2014	-	01	-	-	01	-	-	-	0	-	-	-	-	-
2015-16	06	03	09	03	02	-	15	-	-	-	02	01	15	03
2016-17	03	04	01	-	02	02	09	01	1	-	01	01	08	02

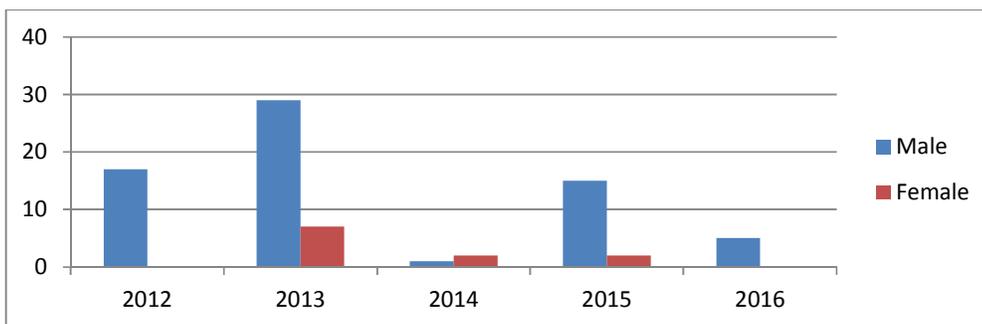




Ph.D. enrolment Gender wise (Faculty of Engineering)

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

<i>Batch</i>	<i>Physics</i>		<i>Chemistry</i>		<i>Math</i>		<i>HSS</i>	
	M	F	M	F	M	F	M	F
2012	04	-	12	-	1	-	-	-
2013	13	-	11	4	5	2	-	1
2014	01	-	-	02	-	-	-	-
2015	05	01	06	01	02	-	02	-
2016-17	01	-	04	-	-	-	-	-



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	1029
SC	310
ST	157
OBC	525
DASA	10
Total:	2031

3.3.2. Strength in M.Tech. Programme

OM	139
SC/ST	41
Sponsored	50
OBC	24
Total	254

3.3.3. M.sc Physics - 10

3.3.4. Ph.D. Programme - 288

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 Centres are: Water Resources and Management Centre, Central Research Facilities Centre, Maintenance Engineering Centre, Innovation, Incubation & Entrepreneurship Development Centre and Computer Services Centre

4.1 DEPARTMENTS

4.1.1 DEPARTMENT OF CIVIL ENGINEERING

Head: Prof.M. A. Lone

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 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.

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	Assc. Professor	M.Tech.	Geotechnical Engineering
10	Dr.J.M.Banday	Assc. Professor	Ph.D	Structural Engineering
11	Dr.J.A.Naqash	Assc. 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 = 11				

R&D Work:

I. Papers Published :

Dr. B. A. Mir

Sr. No.	Title of the Paper	Name of Journal/Conference/Publisher	Page Nos., Vol., Issue No & Year
1	Model Studies on Shear Behavior of Reinforced Reconstituted Clay	International Journal of Civil, Environmental, Structural, Construction and Architectural Engineering- - waset.org/Publication/10003706	pp. 87-94 Vol:10, No:1, 2016, Paper count-199 International Science Index Journal
2	Some Studies on Physical and Mechanical Behavior of Dredged Soil from Flood Spill Channel of Jhelum River, Srinagar	Acta Ingenierfa Civil 2016;. Copy Right Lawrence press; DOI: http://dx.doi.org/10.20936/AICV/160101	pp.:1-7, Volume. 01, Issue: 01 (2016)
3	Expansive soils: problems and remedial measures	World journal of Engineering Research and Technology (Impact Factor=3.419)	pp. 146-162 , Vol. 2, Issue 5, (2016)
4	Some studies on mechanical behavior of stabilized dredged soil for sustainable environment	Procc. International Geotechnical Engineering Conference on Sustainability in Geotechnical Engineering Practices and Related Urban Issues, September 23-24, 2016, Mumbai, India	pp: 1-4, Paper ID-66, Vol. 1 (T-4) Sept. 2016
5	Some studies on the behavior of sugarcane bagasse ash admixed with cement stabilized soil	Procc. International Conference on Soil and Environment, ICSE 2016, Bangalore	pp: 1-8, Paper No. 109sw, Vol.1 (T-6), July 2016
6	Bottom Ash - as an Engineered Construction Material for Sustainable Environment	Procc. International Conference on Soil and Environment, ICSE 2016, Bangalore	pp: 1-8, Paper No. 009sw, Vol.1 (T-6), July 2016
7	Some studies on the mechanical and cbr behavior of dredged material admixed silty soil	Procc. International Conference on Soil and Environment, ICSE 2016, Bangalore	pp: 1-8, Paper No. 01ss, Vol.1 (T-1), July 2016

Dr. S. K. Bukhari

S.No.	Title of the paper	Conferences/Journal etc., where published	Date of publishment
1	Development of modified Jute Reinforced Concrete: An overview	i-manager's Journal of Structural Engineering	February 2016
2	Tunnel construction in PirPanjal (Himalaya) using NATM (Case study T-74R railway tunnel of Katra-Banihalsection of Kashmir rail project)	i-manager's Journal on Civil Engineering	February 2016
3	A Study of Papercrete towards Building Sustainable & Resilient Infrastructure	i-manager's Journal of Structural Engineering	August 2016
4	Seismic vulnerability of century old buildings of Srinagar city, Kashmir Himalaya, India	i-manager's Journal on Civil Engineering	February 2017
5	Delineating DeepBasement Faults in Eastern Dharwar Craton through Systematic Methods of Geophysics and Remote Sensing vis-à-vis the Concerns of Moderate Seismicity	Journal of Geography and Natural Disasters	January 2017

II. Programmes Attended by Staff (Conferences/ Courses/ Trainings)

Prof. B. A. Mir

1	International Conference on Soil and Environment, ICSE 2016, Bangalore	Indian Institute of Science (IISc) Bangalore & IGS Bangalore Chapter, IISc Bangalore	July 23-24, 2016
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2	International Geotechnical Engineering Conference on Sustainability in Geotechnical Engineering Practices and Related Urban Issues,	Indian Institute of Technology Bombay & IGS Mumbai Chapter, Mumbai, India	September 23-24, 2016
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S.No.	Name of the staff member	Name of the program attended	Institute where attended	Date
1	Dr. S.K Bukhari	12th JK Science Congress	University of Jammu	March 03, 2017
2		Sixth Indian Young Geotechnical Engineers conference	NIT Trichy, India	10 March 2017
3		12th JK Science Congress	University of Jammu	March 04, 2017
4		Sixth Indian Young Geotechnical Engineers conference	NIT Trichy, India	11 March 2017

III. Any other Activity / Achievement with Details

1	Workshops/Seminars Organized	As a core committee member for organizing 5-days INSPIRE Internships sponsored by DST, GOI, since 2012 to 2017
2	Membership in Scientific LMISCMS, LMISWE, LMICI, and Professional Societies LMIITBAA, MUACSE (USA)	MASCE (USA), MISSMGE (UK), LMIGS, LMISTE, LMISRMTT, LMIE, LMICI, LMIIscAA, C.Engg (I),
3	Journal Reviewer Geotechnique-UK	Ground Improvement ICE-UK, GEGE-Springer IJGE-Ross Pub. USA, IJCE, Geomate-Japan, IJCECT

4	Editorial Board Member Engineering (WRJCLE)	<p>1. For World Research Intl. Journal of Civil</p> <p>2. For International Scientific Committee and Editorial Review Board on Civil and Structural Engineering for World Academy of Science, Engineering and Technology</p> <p>3. For i-Manager`s Journal of Civil Engineering</p> <p>4. For GEOMATE Technical Program Committee (TPC), Japan</p> <p>5. For International Conference on Test, Measurement and Computational Method (TMCM2015</p>
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IV. Purchase Made

S. No.	Name of equipment/item	Date of Purchase	Amount Purchase
01.	Plaxis 3D	March 2017	23,94,000/-
02.	OTUM G2 educational version Software		9,00,000/-
03.	All Geotechnical Suite- Oasys Software: 10 programs	April-May 2016	10,52,150/-
Total			4346150/-

4.1.2 DEPARTMENT OF MECHANICAL ENGINEERING

Head: Prof. G.A. Harmain

Introduction

Established in 1963, the Department of Mechanical engineering has one B. Tech and two M. Tech programmes. 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.

Faculty

S. No	Name of Faculty Member	Designation	Qualification	Research Areas
1.	Prof. G.A. Harmain	HOD	Ph.D	Wave Motion 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.,	Tribology
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	Assc. Professor	M. Tech	Tribology of brake systems,
10.	Mr. Saad Parvez	Assc. Professor	M. Tech	Manufacturing strategy,
11.	Mr. Gulam Muhammad	Assc. 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 = 11				

R & D work

Enclosed kindly find herewith Annual report for the year 2015 to 2016 (01.04.2015 to 31.03.2016) of the Mechanical Engineering Department for further processing at your end

I. Papers published:

S.No	Name of the Staff member	Title of the Papers	Conference/Journal etc, where published	Date of publishment
01	A. Jameel, G. A. Harmain, Y. Anand, J. H. Masoodi, F. A. Najar,	“Effect of Inclusions on the Shape and Size of Crack Tip Plastic Zones by Element Free Galerkin Method”,	World Academy of Science, Engineering and Technology International Journal of Mechanical, Aerospace, Industrial, Mechatronic and Manufacturing Engineering Vol:11, No:3,	January 2017
02	Malik Parveez , Amit Dhiman , G.A. Harmain	“Effect of Buoyancy on The Flow Around Tapered Trapezoidal Prism”	”, International journal of Advance research in Science and Engineering (ISSN (o): 2319-83354, ISSN	8 th January 2017

			(P) : 2319-8346	
03	Junaid H Masoodi, G.A Harmain	A Methodology for Assessment of Erosive Wear on a Francis Turbine Runner”,	“Energy, (Elsevier), Vol 118, pp.644 – 657,	2017 1 January 2017
04	Junaid H Masoodi, G. A Harmain,	“Sediment erosion of Francis turbine runners in the Himalayan region of India”	“International Journal on Hydropower and Dams, Issue 1, 82-89.	January 2017
05	Najar, F A and G. A. Harmain,	“Performance characteristics in hydrodynamic water cooled thrust bearings”,	”, Journal Tribologi, Vol 10, Pp 28-47,	2016
06	M Haneef and M F Wani,	“ Wear modeling revisited using electrical analogy, ” Trans	ASME , J. of Tribology, doi: 10.1115/1.4035780	2017, January 2017
07	D.Khabale and M.F.Wani	“Fretting Wear Characterization of A791 and AE2 Magnesium Alloys under Dry Sliding Conditions,”	Trans. Of ASME, J. of Tribology, 2017, doi:10.1115/1.4036922	2017
08	G Khajouria and M F Wani	“ High Temperature Friction and Wear Studies of Nimonic 80A and Nimonic 90 against Nimonic 75 under Dry Sliding Conditions,”	Tribol. Lett. 2017, 65-100, DOI :10.1007/s11249-017-0881-1	2017
09	S Mushtaq and M F Wani	‘Self lubricating tribological characterization of lead free Fe-Cu based bearing material.	J. Tribologi, Vol. 12, pp. 18-37	March 2017
10	M. Junaid Mir, M. F. Wani	“Modelling and analysis of tool wear and surface roughness in hard turning of AISI D2 steel using response	International Journal of Industrial Engineering Computations .	2017 January

		surface methodology,”		
11	Ankush Anand , M. I. Ul Haq, K. Vohra , A. Raina , M. F. Wani,	Tribological consideration of cutting fluids in machining environment:	A review, Tribology in industry vol 389(4),2016, PP 463-474	2016 December
12	-Do-	Computational Investigations for assessing the feasibility of turbocharging a multicylinder spark ignition Engine by using petrol and methane as alternative fuels.	International journal of IT and Engineering vol.4 Issue11,ISSN -2321-1776	Nov.2016
13	-Do	Effect of start of combustion timing on the octane requirement, performance and emission characteristics of A V6 TCI BI-Turbo spark ignition Engine using petrol and methane as alternative fuels.	International journal of IT and Engineering vol.4, issue 12, ISSN: 2321-1776	January, 2017
14	-Do-	Octane requirement, performance and emission characteristics of a constant speed V6 TCI BI-turbo spark ignition engine under variable compression ratio using petrol and methane as alternative fuels.	International Journal of IT and Engineering vol.5, issue 1 ISSN:2321-1776	January- 2017
15	-Do-	Octane requirement, performance and emission characteristics of a V6 TCI BI- turbo spark ignition engine under variable speed operation using petrol and ethanol as alternative fuels.	International Journal of IT and engineering vol.5, issue 2, ISSN:2321-1776	Feb.2017
16	M.A.Malik and Adnan Qayoum	Investigation of Dimensionless Numbers on Macro-scale Synthetic jet in Quiescent Flow	6 th International and 43 rd National Conference on Fluid Mechanics and Fluid power, MINIT, Allahbad.	Dec 15.17,2016

17	Ovais Gulzar, Adnan Qayoum and Rajat Gupta	Performance of Flat Plate Collector for Al ₂ O ₃ - H ₂ O Nanofluid using Hamilton Crosser Model	6 th International and 43 th National Conference on Fluid Mechanics and Fluid Power, MNNIT Allahabad.	15-17.2016
18	Avesh Kumar, Arjumand Rasool and Adnan Qayoum	Experimental Investigation of Heat and Fluid in a Heated Duct with perforated Repeated Ribs	6 th International and 43 rd National Conference on Fluid Mechanic and Fluid Power, MNNIT Allahabad	Dec.15-17,2016
19	Faisal Shabir , Adnan Qaoyoum and Rajat Gupta	Effect of Overlap Ratio on the Performance of Savonius Wind Turbine	6 th International and 43 rd National Conference on Fluid Mechanics and Fluid Power, MNNIT Allahbad	Dec.15-17,2016
20	Faisal Shabir , Adnan Qaoyoum and Rajat Gupta	Transient Heat Conduction of Disc Brake System,	6 th International and 43 rd National Conference on Fluid Mechanics and Fluid power, MNNIT Allahabad	Dec.15-17,2016
21	M. Hanief, M.F.Wani	“Effect of surface roughness on wear rate during running-in of En-31 steel Model and experimental validation, Materials letters”	Material Letters Elsevier	11 April 2016.
22	M.Hanief, M.F.Wani	Artificial neural network and regression based models for prediction of surface roughness during turning of red brass (C23000)	Journal of Mechanical Engineering and Sciences.10, issue 1,pp 1835-1845	June 2016
23	M. Hanief ,M.F.Wani and M.S.Charoo	Modeling and prediction of cutting forces during the turning of red brass (C2300) using ANIN and regression analysis.	“Engineering Science and Technology, an International Journal, Elsevier”	12 November 2016
24	M.Hanief, M.F.Wani	Influence of operating parameters on running-in Wear of EN-31 steel”	Technological Engineering, De Gruyter	2016
25	<u>M.S.Charoo</u>, M.F.Wani.	Tribological Properties of h-BN Nano-particles as Lubricant Additive on Cylinder Liner and Piston Ring	“Lubrication Science DOI:10.1002/lr.1366”.	June 2016

26	<u>M.S.Charoo</u> , M.F.Wani	Friction and wear properties of nano-Si ₃ N ₄ /nano-SiC composite under nanolubricated conditions	"Journal of Advanced Ceramics 2016, 5(2): 145-152".	August 2016
27	<u>M.S.Charoo</u> , M.F.Wani	Tribological Properties of IF-MoS ₂ Nanoparticles as Lubricant Additive on Cylinder Liner and Piston Ring Tribo-pair	"Tribology in Industry 2016, 38(2): 156-162".	August 2016
28	<u>M.S. Charoo</u> , M. F. Wani, M. Hanief, Aman Chetani, M. A. Rather	Tribological characteristics of EN8 and EN24 steel against aluminium alloy 6061 under lubricated condition,	"Advanced Materials Proceeding" 2017, 2(7), 445-449	2017 Feb 2017

II. Programme attended by Staff (Conferences/Courses/Trainings)

S.No.	Name of the Staff members	Name of the programme attended	Institute where attended	Date
01	Malik Parveez1*, Amit Dhiman2, and G.A. Harmain3	, "Lamiar Flow Around Expanded Trapezoidal Prism: Aiding Buoyancy Effect"	2 nd Computational Science Symposium 2017 organized by Department of Computational and Data Sciences (CDS), at Indian Institute of Science (IISC), Bangalore	16-18 Mar 2017
02	G. A. Harmain, Azher Jameel, Farooq A. Najar, Junaid H. Masoodi	"Large Elasto-Plastic Deformations In BI-Material Components By Coupled FE-EFGM"	"International Conference on Advanced Material Technologies (ICAMT)-, Dadi Institute of Engineering and Technology (DIET), Visakhapatnam, Andhra Pradesh, India	2016
03	Azher Jameel and G. A. Harmain,	"Fatigue Crack Growth Analysis of Cracked Specimens by XFEM ad EFGM", Proceedings of the 61st Congress of the Indian	Proceedings of the 61 st Congress of the Indian Society of Theoretical and Applied mechanics (International	Dec 11-14-2016

		Society of Theroretical and Applied mechanics” (An International Conference	Conference held at VIT University of Vellore, India	
04	Azher Jameel and G. A. Harmain,	“Estimation of Cack Tip Plastic Zone by XFEM, EFGM and coupled FE-EFG Techniques”	Proceedings of the 61 st Congress of Indian Society of Theroretical and Applied mechanics (An International Conference) to be held at VIT University of Vellore, India.	Dec 11-14-2016
05	Adnan Qayoum	Applications of , foams and colloidal dispersions	IIT Madras	Jan 23-28,2017
06	Sheikh Ghulam Mohamad	Int. Symposium on NDT of Aerospace Components	IISc, Bangalor	3-5 Nov.2016
07	-do-	Ultrasonic Testing		20 – 22 , June,2016
08	-do-	Indo-US Workshop on Sustainable Product Design, Member of award winning team	IISc, Bangalore	20 th to 22 June,2016
09	-do-	Magnetic Particle Testing	-do-	23 rd to 26 th June, 2016
10	M.Hanief,M.F.Wani	M.Hanief, Nitin Badyal, M.S.Charoo, M.F.Wanik, Mushtaq A. Rather	Tribology characteristics of waste rubber-derived oil as lubricant, ICEMS ,JNU Jaipur, India	2016
11	M. Hanief, M.Zahid, M.F. Wani, M.S.Charoo, M.A.Rather	Study and improvement of lubrication characteristics of Bio-lubricant (Jatropha oil) using nano-Mos ₂ additive icmtech	Published online by the VBRI Press	2016

III. Purchases made:

Sr.No.	Name of the equipment/item	Date of purchase	Annual purchase
01	National Instruments data Acquisition system (NI CDAQ-9138, NI-9219,NI-9972), NI 9214, TB 9214, NI-PS-15, Cable Assembly, Power card –	05.04.2016	19,65,313

	250 watt, Academic lab.- View premium, Shipping and handling charges		
02	Thermal conductivity of insulating powder etc.	30.06.2016	36,878
03	Heat pipe demonstrator	30.06.2016	6,878
04	Heat transfer through a composite wall	30.06.2016	36,878
05	Heat transfer through a metal rod	30.06.2016	36,878
06	Heat transfer in forced convection	30.06.2016	40,253
07	Heat transfer in natural convection	30.06.2016	36,878
08	Shell and tube heat exchanger	30.06.2016	74,030
09	IFA-300E System W1 CTA channel, ADD on CTA channel , ADCPC 8 –channel PCIA/D board, 1210 T1.5 Probe general purpose 1211- T1.5 Probe, Sensor parallel , 1218-T1.5 Probe boundary layer, 1245-T1.5 Probe crossflow X , - T1.5 wire, 1150-6 Probe support , 1155-6 Probe support 2 sensors, 1152 Probe right angle adopter single sensor, 1157 Right angle adopter (dual sensor), 1137-2 Mounting block for 0.180 dia.	11.05.2016	50,000
10	Advance Sensor trainer kit with accessories	02.06.2016	92,000
11	Thermal conducting of Insulating powder etc.	01.07.2016	2,98,646
12	Cubic Boron nitride inserts and tool holder, cutting fluid/cooling medium mineral oil	02.01.2017	3,49,258
13	Ansys academic CFD Turl tool Renewal of AMC for four years of Ansys	04.1.2017	15,79,,200
14	Digital Micromanometer (2 Nos) Handling charges of Digital Micormanometer	09.02.2017	5,51,724
15	D.C Power supply	22.02.2017	1,44,553
16	Five gas analysers	28.2.2017	1,75,000
17	Tungsten Raw material for sample preparation	31.03.2017	94,176
18	Miscellaneous	-	9,50,000
Total			65,18,543/-

4.1.3. DEPARTMENT OF ELECTRICAL ENGINEERING

Head: Prof. S. A. Lone

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.N o	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 = 08			

R&D Work

I. Papers Published from 01-04-2015 to 31-03-2016.

S. No	Name	Title	Conference/Journal	Date
1	Prof. M. D. Mufti	Modelling and Control of Wind Solar Hybrid System Using Energy Storage System.	ICCCA2016, Greater Noida, New-Delhi.	
2	Dr. Aijaz Ahmad	A novel adaptive control approach for three-phase improved power quality converter under distorted and unbalanced AC mains,	International Journal of Industrial Electronics and Drives, Vol.3, No.2,	2016.
3	Dr. Aijaz Ahmad	Fuzzy Logic Controlled Three-Phase Improved Power Quality Converter for Disturbed AC Mains,	International Journal of Scientific and Technical Advancements, Vol.2, No. 4,	2016.
4	Dr. Aijaz Ahmad	Performance Evaluation of a Three-Phase Improved Power Quality Converter under Unbalanced Mains Conditions,	International Journal of Scientific and Technical Advancements, Vol.1, No. 3,	2015.
5	Dr. Aijaz Ahmad	A novel control approach for improved performance of a high power factor converter under supply and load perturbations, International Journal of Electrical Engineering, (Accepted for publication).		
6	Dr. Aijaz Ahmad	An improved control approach for three phase improved power quality converter for unbalance AC Mains, Asian Power Electronics Journal, (Accepted for publication).		
7	Dr. Aijaz Ahmad	Modified Space Vector Control Approach for Improved Power Quality Converters under Supply and Load perturbation, 3 rd International Conference on Recent Trends and Advancements in Engineering and Technology, SMVDU, Jammu, 2016.		

8	Dr. Aijaz Ahmad	Performance evaluation of D-statcom for mitigation of power quality problems at different source and load side fault conditions, 7 th IEEE Power India International Conference, Bikaner Rajasthan, 2016.		
9	Prof. S. A. Lone	Modelling and Control of Wind Solar Hybrid System Using Energy Storage System.	ICCCA2016, Greater Noida, New-Delhi.	
10	Dr. A.H. Bhat	An Improved Control Approach for Three-Phase Improved Power Quality Converter for Unbalanced AC Mains (Journal)	<i>Asian Power Electronics Journal.</i>	
11	Dr. A.H. Bhat	A novel adaptive control approach for three-phase improved power quality converter under distorted and unbalanced AC mains	<i>Int. J. Industrial Electronics and Drives, Vol. 3, No. 2, 2016, pp. 55-66.</i>	
	Dr. A.H. Bhat	Power Quality Improvement using Voltage Source Converter (VSC) based Unified Power Quality Conditioner (UPQC) (Journal)	<i>International Journal of Computer Applications (0975 – 8887) Volume 148 – No.1,</i>	August 2016
12	Dr. A.H. Bhat	Shunt Hybrid Power Filter for Harmonic Reduction to Improve Power Quality using PI and Hysteresis Controller (Journal)	<i>International Journal of Computer Applications (0975 – 8887) Volume 147 – No.4,</i>	August 2016
13	Dr. A.H. Bhat	Comparative Analysis of Shunt Active Filter with PI controller and ANN based Controller (Journal)	<i>International Journal of Computer Applications (0975 – 8887) Volume 147 – No.4,</i>	August 2016
14	Dr. A.H. Bhat	Performance Evaluation of Multilevel AC/DC Converter for Power Quality Improvement with DC Bus Capacitor Voltage Balancing (Journal)	<i>IOSR Journal of Electrical and Electronics Engineering, vol. 11, issue 4, pp. 25-31</i>	July- Aug 2016
15	Dr. A.H. Bhat	Fuzzy Logic Controlled Three-Phase Improved Power Quality Converter for Disturbed AC Mains	International Journal of Scientific and Technical Advancements, Volume 2, Issue 4, pp. 1-6, 2016	
16	Dr. A.H. Bhat	Performance Investigation of Nine-level Cascaded H-bridge Inverter Based STATCOM for Various Power System Applications	(IJIED, InderScience)	
17	Dr. A.H. Bhat	.Performance evaluation of SRF-based dynamic voltage restorer for mitigation of various power quality problems.	<i>Int. J. Industrial Electronics and Drives, Vol. 3, No. 2, 2016, pp. 89-101</i>	
18	Dr. A.H. Bhat	Performance Evaluation of Fuzzy Logic Controlled Voltage Source Inverter Based Unified Power Quality Conditioner for Mitigation of Voltage	<i>ICACCI IEEE conference Jaipur India</i>	Sep. 21-24,

		and Current Harmonics (Conference)		
19	Dr. A.H. Bhat	Multilevel Inverter Based STATCOM For Simultaneous Compensation of Reactive Power And Active Power (Conference)	IEEE International conference (EEECOS)-2016,	1-2 june, 2016.
20	Dr. A.H. Bhat	Power Quality Improvement and Reactive Power Compensation in a Grid Connected System for Non-Linear Loads Using STATCOM. (Conference)	IEEE International conference (EEECOS)-2016,	1-2 june, 2016.
21	Dr. A.H. Bhat	Generalised Weighted Least Square Based Modified Space Vector Pulse Width Modulation for AC/DC Converter under Supply Perturbation (Conference)	1st IEEE International Conference on Power Electronics, Intelligent Control and Energy Systems (ICPEICES-2016)	
22	Dr. A.H. Bhat	Reactive power compensation using static synchronous compensator (STATCOM) with conventional control connected with 33kV grid (Conference)	2015 2nd International Conference on Recent Advances in Engineering & Computational Sciences (RAECS)Year: 2015 Pages: 1 5,	
23	Dr. A.H. Bhat	Performance evaluation of a three phase shunt active power filter for power quality improvement (Conference) <i>Recent Developments in Control, Automation and Power Engineering (RDCAPE),</i>	2015 International Conference on Year: 2015Pages: 214 219,	
24	Dr. A.H. Bhat	Comparative Analysis of Pulse Width Modulated Voltage Source Inverter Fed Induction Motor Drive with Matrix Converter Fed Induction Motor Drive (Conference)	1st IEEE International Conference on Power Electronics, Intelligent Control and Energy Systems (ICPEICES-2016)	
25	Dr. A.H. Bhat	Fuzzy Logic Controlled Three-Phase Improved Power Quality Converter For Disturbed AC Mains (Conference)	National conference and Exhibition on Emerging and Innovative Trends in Engineering Technology (NCEEITET, 16) at GCET Jammu, 11-12 Nov. 2016.	
26	Dr. A.H. Bhat	Modified Space Vector Control Approach for Improved Power Quality Converter Under Supply and Load Perturbation	3rd International conference on Recent Trends and Advancements in Engineering & Technology (ICRTAET), (Conference)	17-18 Nov. 2016.
27	Dr. A.H. Bhat	Fuzzy Logic Controlled Hybrid Filter For Power Quality Improvement	International Conference on Electrical, Electronics, and Optimization Techniques	

			(ICEEOT) - 2016, pp. 714-719.	
28	Dr. S. Javed Iqbal	Development of a Wind Turbine Simulator using Separate Excited DC Motor for Induction Generator/Testing	IEEE Power India International Conference (PIICON 2016)	25-27 Nov 2016
	Dr. S. Javed Iqbal	Impact of Large Scale Wind Penetration on Power System Frequency Stability	IEEE International Conference on Electrical , Communication Technology (IEECCT 2017)	22-24 Feb 2017
29	Dr Mohammad Abid Bazaz	Model Order Reduction in Power Electronics: Issues and Perspectives	International Conference on Computing, Communication and Automation (ICCCA 2016)	05-06 May 2016
30	Dr Mohammad Abid Bazaz	Comparative Analysis of Speed Control Strategies for Vector Controlled PMSM Drive	International Conference on Computing, Communication and Automation (ICCCA 2016)	05-06 May 2016
31	Dr Mohammad Abid Bazaz	Sensorless Control of PMSM Drive using Neural Network Observer	IEEE conference on PEICES-2016	04-06 July 2016
32	Dr Mohammad Abid Bazaz	ANFIS Based Speed Controller for a Direct Torque Controlled Induction Motor Drive	Advances in Intelligent Systems and Computing Series, Vol. 530, 2016, pp 891-902	18 Sept 2016
33	Dr Mohammad Abid Bazaz	Sensorless Control of PMSM Drive with Neural Network Observer using a Modified SVPWM strategy	Advances in Intelligent Systems and Computing Series, Vol. 530, 2016, pp 857-868	18 Sept 2016
34	Dr Mohammad Abid Bazaz	Implementation of Hybrid Fuzzy Sliding Mode Controller for Power System Stability	IEEE international conference on ICEPES 2016	14-16 Dec 2016
35	Dr Mohammad Abid Bazaz	Neural Predictive Observer for Sensorless Controlled Induction Motor Drive	Control and Intelligent Systems, Vol. 45, No. 2, 2017, pp. 84-91	January 2017
36	TabishNazir Mir & Dr. A. H. Bhat	Comparative analysis of Pulse Width Modulated Voltage Source Inverter fed induction motor drive and Matrix Converter fed induction motor drive	<u>2016 IEEE 1st International Conference on Power Electronics, Intelligent Control and Energy Systems (ICPEICES)</u>	4 th July 2016

III. Programmes attended by the Staff:

S. No	Name	Name of Programme	Institute where attended	Date
1	Dr M. A Bazaz	International Conference on Computing, Communication and Automation	Galgotias University, Noida UP	03-04 May 2016
2	Dr M. A Bazaz	Second International Symposium on Intelligent System Technologies and Applications	LNM Institute of Technology, Jaipur	21-24 Sept 2016
3	TabishNazir Mir	Latex Workshop	NIT Srinagar	3rd-4th June, 2016
4	TabishNazir Mir	<u>2016 IEEE 1st International Conference on Power Electronics, Intelligent Control and Energy Systems (ICPEICES)</u>	Delhi Technological University (DTU)	4 th -6 th July, 2016
5	Dr. Aijaz Ahmad	Short term course on "Smart Grid and Cyber Security"	CPRI, Bangalore	Jan 5-6, 2017
6	Dr. Aijaz Ahmad	"Advanced Engineering Optimization Through Intelligent Techniques", at	SVNIT Surat	6-10 Feb. 2017.

II. Programmes Conducted (Conferences / Courses / Trainings)

S. No	Name of Programme	Date When Conducted	Name of Coordinator	No. & Background of Participants
1	Scientific & Technical Documentation using LaTeX	4-5 June 2016	Dr Mohammad Abid Bazaz	50 Faculty, Research Scholars of NIT Srinagar

III. Purchases Made

S.No	Name of the Equipment	Date of Purchase	Qty	Annual Purchase
1	FPGA Boards & Relevant Operating Software	12-05-16	3	Rs.55,344/87
2	435-II Power Quality & Energy Analyser FLUKE	31-05-16	1	Rs. 4,99,800/-
3	1. dSPACE 1104 (DSP DS 1104) Rs.1070000 2. ACE MLBX 1302T Rs.1875000 CST Rs. 1 61975 Total Rs.	30-6-16 30-6-16	2 1	Rs.31,06,975/-
4	Three Level Inverter Stack (NPC Type) IGBT Based 4 Phase Bridge Converter Trainer with Driver Three Phase IGBT Stack (Rectifier + IGBT Based Inverter) Three Phase IGBT Stack with Chopper (Rectifier + IGBT Based Inverter + Chopper)	17-11-16	2 2 1 1	Rs.6,14,106/-
6	Euro Clean Vacuum Cleaner	14-03-17	1	Rs.14,2017/-
Total				44,18,242/-

4.1.4. DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

Head: Prof. Najeeb-ud-din

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.N o	Name	Designation	Qualificatio n	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	Assc. Professor	M. Tech	Computer Science
5	Mr. A. A. Mir	Assc. Professor	M. Tech	Computer Technology
6	Mrs. Farida Khurshid	Assc. Professor	M. Tech	Image Processing & Pattern recognition
7	Mrs. Gausia Qazi	Assc. Professor	M. Tech	Optical Fiber Comm.
8	Mr. A. G. Mir	Assc. Professor	M. Tech	Comm & I. T.
9	Mr. G. R. Beigh	Asstt. Professor	M. Tech	Comm. Systems
Number of Faculty Members engaged on Contractual basis = 08				

R&D Work

I. Paper published:

Prof. A. H. Mir,

S. No	Title of the Paper	Conference/Journal etc. where published
1	Constellation expanded active interference cancellation technique for suppression of out-of-band radiation in OFDM based cognitive radios	AEU - International Journal of Electronics and Communications Volume 76, June 2017, Pages 36-45
2	Copy-move detection using gray level run length matrix features	International Journal of Forensic Engineering, 2017
3	Advanced Prediction Based Mobility Support for 6LoWPAN Wireless Sensor Networks	International Journal of Information Technology and Computer Science(IJITCS) , Feb. 2017, PP.47-57, DOI: 10.5815/ijitcs.2017.02.06
4	Enhancement and segmentation of pituitary gland from MR brain images	International Journal of Medical Engineering and Informatics, Apr-2017, Vol. 9, No. 3
5	Performance Evaluation of AIC Technique for Single and Multiple Primary Bands in OFDM based Cognitive Radios	International Journal of Advances in Telecommunications, Electrotechnics, Signals and Systems, Volume 5, Issue 3- pp: 122-128.
6	Statistical textural feature and deformable model based brain tumor segmentation and volume estimation	Multimedia Tools Applications, DOI 10.1007/s11042-016-3979-9, October , 2016
7	Study of Basic Mobile Internet Protocols (MIP) in Multi-Protocol Label Switching (MPLS) Domain	International Journal of Computing and Digital Systems , Volumes 5 , Issue 3 April 2016 .
8	Personal Verification using dual fusion scheme based on ear and iris biometrics,	International Journal of computing and digital systems (IJCDS)
9	Reduction of Out of Band Radiation using Modified Constellation Expansion in OFDM based cognitive Radios.	International Journal of Computing & Network Technology (IJCNT), April 2016
10	Statistical Texture Feature and Deformable Model based MR Brain Tumor Segmentation	International Conference on Advances in Computing, Communications and Informatics (ICACCI), IEEE 2016.

Dr. Najeeb-ud-din

S. No	Title of the Paper	Conference/Journal etc. where published
1	A High Speed Architecture for Lifting-based 2-D Cohen-Daubechies-Feauveau (5,3) Discrete Wavelet Transform used in JPEG2000	International Journal of Advances in Telecommunications, Electrotechnics, Signals and Systems , Vol. 6, No. 1 (2017)
2	Investigation on Chirping induced performance degradation in Single Mode Directly modulated 1.55um DFB laser	Journal of Optical Communications, ISSN (Online) 2191-6322, ISSN (Print) 0173-4911, DOI: https://doi.org/10.1515/joc-2017-0015 , Published online: 2017-03-29
3	Effect of gain compression above and below threshold on the chirp characteristics of 1.55 μm distributed feedback laser	Optical Review, September 2016, DOI 10.1007/s10043-016-0268-9
4	A Novel Arrangement for Efficiently Handling Image Border in FPGA Filter Implementation	in proceedings of 2016 3rd International Conference on Signal Processing and Integrated Networks (SPIN), Noida, India
5	Effect of Mobility Degradation on the Device Performance of Organic thin-film transistor's	in proceedings of 2016 IEEE Region 10 Conference (TENCON), Singapore.
6	Analytical model for the electrical characteristics of metal-ferroelectric insulator semiconductor (MFIS) based capacitor.	Ferroelectrics, Journal of Taylor and Francis, 2017, Vol. 184, 1-9

Dr. G. M. Rather

S. No	Title of the Paper	Conference/Journal etc. where published
1	A study on coverage of milli meter wave (MMW) communication link for 5 th generation (5G) mobile networks	International conference on innovations in electronics and communication engineering (ICIECE-2017), Hyderabad, India, July 2017
2	Millimeter wave communication for 5 th generation mobile networks	Accepted for presentation at International conference on advanced computing and

		intelligent engineering (ICACIE-2017) at central university of Rajasthan, India, to be held on 23-25 November 2017
3	Switch mode power amplifier: A brief review	Presented in International conference on energy, communication, data analytics and soft computing (ICECDS-2017), Chennai, Tamil Nadu

Dr. Gousia Qazi

S. No	Title of the Paper	Conference/Journal etc. where published
1	The effect of gain compression on the modulation characteristics of 1.55 μ m distributed feedback laser	2016 3rd International Conference on Signal Processing and Integrated Networks (SPIN), Noida, India
2	Effect of chirp characteristics of directly modulated laser on signal transmission performance	Accepted for publication in IEEE International Conference on Signal Processing and Integrated Networks (SPIN), 2-3 February, Noida, India
3	Investigation and performance evaluation of upgraded filter enhanced configurations of EDFA	Communicated to IEEE Journal of Lightwave Technology

Dr. G. R. Begh

S. No	Title of the Paper	Conference/Journal etc. where published
1	Constellation expanded active interference cancellation technique for suppression of out-of-band radiation in OFDM based cognitive radios	AEU - International Journal of Electronics and Communications Volume 76, June 2017, Pages 36-45
2	Performance Evaluation of AIC Technique for Single and Multiple Primary Bands in OFDM based Cognitive Radios	International Journal of Advances in Telecommunications, Electrotechnics, Signals and Systems , Vol. 5, No. 3 (September 2016)
3	Reduction of Out of Band Radiation Using Modified Constellation Expansion in OFDM based Cognitive Radios	International Journal of Computing and Network Technology ISSN (2210-1519), No. 2 (May-2016),

Dr. Fareeda Khurshid

S. No	Title of the Paper	Conference/Journal etc. where published
1	Experimental analysis of DDoS attack and its detection in Eucalyptus private cloud platform	2016 International Conference on Advances in Computing, Communications and Informatics (ICACCI), November 2016, Jaipur, India.
2	Personal Verification using dual fusion scheme based on ear and iris biometrics,	International Journal of computing and digital systems (IJCDS)

Dr. Abdul. Gaffar Mir

S. No	Title of the Paper	Conference/Journal etc. where published
1	Achieving performance speed-up in FPGA based 4:2 compressor using fast carry chains	IEEE International Conference on Signal Processing and Integrated Networks (SPIN), held on February 2-3, 2017, at Amity University, Noida, India

II. Purchases Made from 01-04-2015 to 31-03-2016:

S. No	Name of the Equipment	Cost per unite	Purchase Date	Quantity
1	HP Scanner G3110	Rs: 14,490/=	06-04-2016	01.No
2	8085 Microprocessor trainer	Rs. 94,050/=	11-05-2016	10. No
3	Laptop Dell	Rs. 54,500/=	18-05-2016	01.No
	LED Display Monitor	Rs. 29,700/=	18-05-2016	01.No
4	HP Lasejet Printer MFP	Rs: 10,934/=	18-05-2016	01.No
5	HDD 500 GB,DVD, USB	Rs: 10,605/=	18-05-16	03.No
6	Notice Board	Rs.13,000/=	31-05-16	02.No
7	Microprocessor Key Board	Rs. 14,800/=	01-06-16	10.No
8	Canon digital Copier	Rs. 73,000/=	18-10-16	01.No
9	Canon DADF AMI	Rs: 14,500/=	16-12-2016	01.No
10	Water Chiller	Rs: 80,361/=	26-12-2016	01.No
11	Arbitrary Function generator	Rs: 3,79,498/=	26-12-2016	01.No
12	Soft ware, Optic-system Ver-13	Rs:11,50,000/=	Nov. 2016	01.No
13	Graphics Card	Rs: 87,255/=	02-01-2017	12.No
14	Steel Rack	Rs: 14,800/=	05-01-2017	01.No
15	Computer Works station Fujitsu 24" Monitor TFT	Rs:12,25,754/=	05-01-017	10.NO each
16	Programmable Function generator	Rs: 03,81,905/=	10-01-2017	2.No

17	Logic Analyzers	Rs:19,08,400/=	10-01-2017	02.No
18	Digital Multimeter	Rs; 20,30,148/=	13-01-2017	40.No
19	Soft Ware ADS	Rs: 15,82,500/=	19-01-2017	01.No
20	Frequency Spectrum Analyzer	Rs: 98,121/=	28-02-2017	01.No
21	Digital Storage Oscilloscope	Rs: 17,87,651/=	10-03-2017	03.No
22	RF Victor Signal Generator	Rs: 13,32,450/=	30-03-2017	01.No
23	Digital Storage Oscilloscope	Rs: 2,77,200/=	05-04-2017	03.No
24	Audio Output meter	Rs: 42,720/=	05-04-2017	05.No
	Total	Rs. 1,27,08,342/-		

4.1.5. DEPARTMENT OF CHEMICAL ENGINEERING

Head: Dr.F.Q.Mir

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. 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 various Institutes and industries.

FACULTY

S.N o.	Name	Designation	Qualificati on	Area of specialization
01	Dr. Md N.S.Khan	Professor and HOD	PHD	Bio Chemical Engineering
02	Mr. F.Q.Mir	Assistant	M-Tech	Membrane Science

		Professor		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 = 07				

I. Papers Published:

S. No.	Name of the staff Member	Title of the papers	Conference/Journal etc. where published	Date of Publication
1.	Dr. F. Q. Mir,	1). Sharp rise in resistance of ion exchange membranes in low concentration NaCl solution	Journal of the Taiwan Institute of Chemical Engineers	31 March, 2017
2.	Dr. M.N.S. Khan	1). Potential of <i>Potamogeton lucens</i> macrophyte for generation of fuels and chemicals by pyrolysis.	<i>World Scientific News</i>	October, 2016
		2). Comparative kinetic studies on non-isothermal pyrolysis of <i>Ceratophyllum demersum</i> macrophyte under inert conditions.	<i>Energy and Environment Focus</i>	December, 2016
		3). Catalytic hydrothermal carbonization of invasive macrophyte hornwort (<i>Ceratophyllum demersum</i>) for production of hydrochar: a potential biofuel.	<i>Environmental Science Technology,</i>	December, 2016
		4). Hydrothermal carbonization of macrophyte <i>Potamogeton lucens</i> for solid biofuel production..	<i>Engineering Science and Technology, an International Journal</i>	February, 2017
3.	Mr. T. Rasool	1). "Thermogravimetric analysis of waste biomass of Kashmir (India) as potential feedstock for gasification/pyrolysis"	CHEMCON-2016, Anna University Chennai.	December, 2016
4.	Mr. M. A. Rather	1). <u>Synthesis of Ag doped TiO₂ nanoparticles and study of their efficacy towards degradation of rhodamine -B dye'</u>	Int .Conf Nanotechnology for better living. jointly by IIT Kanpur &NIT Srinagar.	25 - 29 May, 2016
		2). "Hydrothermal carbonization of macrophyte <i>Potamogeton lucens</i> for solid biofuel production",	Eng. Sci. Tech., Int. J.	February, 2017

		3).Comparative Kinetic Studies on Non-Isothermal Pyrolysis of Ceratophyllum demersum . Macrophyte Under Inert Conditions	Energy Environ. Focus	December, 2016
		4). Potential of Potamogeton lucens macrophyte for generation of fuels and chemicals by pyrolysis.	World Scientific News	October, 2016
		5). Enhanced photocatalytic activity of Ag-doped nanoparticles towards degradation of Rhodamine-B dye	Int. Conf. on Water: From Pollution to Purification (ICW 2016) Kottayam Kerala	12- 15 Dec. 2016
5.	Mr. M. P. Ahmad	1). Effects of Buoyancy on the flow around tapered trapezoidal prism	6th international conference on recent trends in Eng. Science and Management, Chanidigarh	8th January, 2017.
		2). Laminar flow around Expanded trapezoidal prism ; Aiding Buoyancy effect	Computational Science Symposium , IISc, Bangalore	16 -18 March, 2017

II. Programmes attended (Conferences/Courses/Trainings):

S.No.	Name of the Staff Member	Name of the Programme Attended	Institute where Attended	Date
1.	Dr. F. Q. Mir	1). Computational and Theoretical Partial Differential Equations	National Institute of Technology, Goa	5- 7 October, 2016
		2). Big Data Analysis	NIT Srinagar	10- 20 March, 2017
2.	Dr. M. N. S. Khan	1). Two days national workshop "Algal Technology and its Applications"	NIT Calicut	17- 18 March, 2017
3.	Mr. T. Rasool	1). Water Quality monitoring and assessment	National Water Academy, Pune	21-25, Nov. 2016
		2). Big Data Analysis	NIT Srinagar	10- 20 March, 2017
4.	Mr. M. A. Rather	1). Big Data Analysis	NIT Srinagar	10- 20 March, 2017

5.	Mr. M. P. Ahmad	1). 10 days Training Programme on Big date Analytics	sponsored by Dept. of Science & Tech. & Organized by Deptt. of Information Tech., NIT, Srinagar\	10- 20 March, 2017
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III. Purchases Made:

S. No.	Name of the equipment/item	Date of Purchase	Amount of Purchase
1	Programmable Muffler furnace	26.04.2016	98,631.00
2.	Water Purification System	04.05.2016	4,94,250.00
3.	Battery AMORON QUANTA 65AH/12V	05.05.2016	1,03,605.75
4.	Syringe infusion pump	29.06.2016	42,000.00
5.	P-Type Roto meter	29.06.2016	43,000.00
6	Double stage Distillation Unit	16.07.2016	2,22,502.20
7	Bench Top Incubator	16.07.2016	2,75,490.00
8.	Weighing electronic balance	25.01.2017	6,46,950.00
9.	Nano MAG Autoclave Reactor	25.01.2017	8,61,259.00
10	Basis Power Supply	11.03.2017	84,206.00
11	Bioreactor with accessories	25.01.2017	22,50,000.00
12	Nitrogen gas cylinders	23.03.2017	34,000.00
Total:			51,55,893.95

4.1.6. DEPARTMENT OF METALLURGY AND MATERIALS ENGINEERING

Head: Dr. Yashwant Mehta

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 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 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	Qualifications	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.	Er. Yashwant Mehta	Asstt. Prof.	M. Tech.	Corrosion Engineering Joining of Materials
4.	Dr. Atiqur Rehman	Asstt. Prof	Ph. D.	Nano-Structured Coatings, High temperature Coatings,
Number of Faculty Members engaged on Contractual basis = 02				

R&D Work:

I. Papers published :

S.No.	Name of the Faculty member	Title of the papers	Conference/Journal etc, where published	Date of publication
1	A Rahman	Study of CoFe ₂ O ₄ /NiFe ₂ O ₄ nanocomposite	Surface Engineering	February 2017

		Ferrite Film,		
2	A Rahman	Synthesis and Characterization of Composite Ferrites Nanoparticles	Proceeding of International conference on Advances in Nanomaterials and Nanotechnology(ICAA-2016)Jamia Millia Islamia New Delhi	November 2016

II. Programmes attended by the staff (conferences/courses/trainings)

S.No.	Name of the Faculty member	Name of the programme attended	Institute where attended	Date
1	A Rahman	Proceeding of International conference on Advances in Nanomaterials and Nanotechnology(ICAA-2016)	Jamia Millia Islamia New Delhi	4-5th November 2016

III. Purchase made

S.No.	Name of the equipment/item	Date of purchase	Amount
01	Cryo Mill	03-04-2016	Rs. 7,45,916
02	Image Analyzer Microscope	31-05-2016	Rs. 12,40,488
03	Corrosion tester- Potentiostat	09-06-2016	Rs. 9,28,566
Total			29,14,970/-

4.1.7 . DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

Head: M. Ahsan Chishti

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 = 08				

Laboratories:

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

R&D Work

Patents Filed

1.	Teaching Manners To Machines: A Method For Ethics-Aware Technology	Indian Application Number: 201711001967 A Dated: 18/01/2017 Status: Filed
2.	Taming Technology : A Fuzzy Logic Based Method For Implementing Ethics	Indian Application Number: 201711008760 Dated: 14-03-2017 Status: Filed

International journals:

S. No.	Name	Title of the Paper	Name of the Journal	Publication Details (Yr, Vol., issue, Page No)
1	Dr. Roohie Naaz Mir	Performance and Analysis of Cluster Based Protocols for Energy Efficient Wireless Sensor Networks	CiiT International Journal of Networking and Communication Engineering	Vol 8, No 07, July 2016
2	Roohie Naaz Mir	Securing Ad Hoc Wireless	<i>Advances in</i>	<i>vol. 2, no. 4, 2017, pp.</i>

		Sensor Networks under Byzantine Attacks by Implementing Non-Cryptographic Methods	<i>Technology Innovation,</i>	113 - 118
3	Roohie Naaz Mir	Clustering in Wireless Sensor Networks--A survey	International Journal of Computer Network and Information Security(IJCNIS)	DOI: 10.5815/ijcnis.2016.06.05
4	Roohie Naaz Mir	Realization of Efficient High Throughput Buffering Policies for Network on Chip Router	<i>I. J. Computer Network and Information Security,</i> 2016, 7, 61-70	DOI: 10.5815/ijcnis.2016.07.08
5	Sahil Sholla, Roohie Naaz and Mohammad Ahsan Chishti	Ethics Aware Object Oriented Smart City Architecture	China Communications (SCI),	Volume 14, ISSN: 1673-5447, Impact Factor : 0.344
6	Sahil Sholla, Roohie Naaz and Mohammad Ahsan Chishti	Quenching the Thirst of Jhelum: Internet of Things Based Smart City Perspective	CSI Communications	Volume 40, No 2, p 8-10, May 2016 (Cover Story) ISSN 0970-647X,
7	Shaima Qureshi	Study of Basic Mobile Internet Protocols (MIP) in Multi Protocol Label Switching (MPLS) Domain	International Journal of Computing and Digital Systems (IJCDS)	Volume 5

International Conferences/Seminars/Workshops:

S. No.	Name	Title of the Paper	Name of Conference	Publication Details (Yr, Vol., issue, Page No)
1.	Sahil Sholla, Dr. Roohie Naaz and Mohammad Ahsan Chishti	Incorporating Ethics in Internet of Things (IoT) Enabled Connected Smart Healthcare	The Second IEEE/ACM Conference on Connected Health: Applications, Systems and Engineering Technologies, Philadelphia, USA	17 – 19 July 2017
2.	Dr. Roohie Naaz Mir	Implementation of X-Y Routing Algorithm for NOC on Reconfigurable Platforms	<i>Proc. of the Intl. Conf. on Nanotechnology for Better Living, 2016</i>	Vol. 3, No. 1, p. 215 doi:10.3850/978-981-09-7519-7nbl16-rps-215

Book Chapter

Name	Title of the Paper	Name of Book	Publication Details (Yr, Vol., issue, Page No)
Dr. Roohie Naaz Mir	Improving Network Lifetime Heterogeneity in Wireless Sensor Networks	Information and Communication Technology for Intelligent Systems	Vol 1, DOI 10.1007/978-3-319-63673-3_40

National Conference

Sahil Sholla, Roohie Naaz and Mohammad Ahsan Chishti, “*Emerging Challenges of the Internet of Things: Privacy and Security Concerns*”, Proceedings of UGC sponsored National Seminar on Electronic Devices, Systems and Information Security, organised by Department of Electronics and Instrumentation Technology, University of Kashmir, 24-25 March, 2017, Pg 59

Sahil Sholla, Roohie Naaz and Mohammad Ahsan Chishti, “*Societal Consideration of the Internet of Things: Ethical Reflections*”, Proceedings of UGC sponsored National Seminar on Electronic Devices, Systems and Information Security, organised by Department of Electronics and Instrumentation Technology, University of Kashmir, 24-25 March, 2017, Pg 60

Programme attended by the staff

Dr. M. Ahsan Chishti and Shaima Qureshi of the Department of Computer Science and Engineering, NIT Srinagar participated in The Second IEEE/ACM Conference on Connected Health: Applications, Systems and Engineering Technologies held at Philadelphia, USA from 17th to 19th July 2017.

Programmes conducted by staff

Department of Computer Science & Engineering, National Institute of Technology Srinagar organized 2nd Advanced Conference on Computing, Communication And Electronics In commemoration of World Telecommunication And Information Society Day on 17th and 18th May 2017 in CSE Department, NIT Srinagar. Institution of Engineers India (IEI) J&K State Chapter collaborated with NIT Srinagar for this conference. The event has been a grand success with participation from different institutions like IUST Awantipora, Kashmir University, Vignan University Tamil Nadu etc. More than 200 participants have attended the conference and around 15 paper presentations were held. Among the guests we had the honor of having Diane Bracken from USA as key note presenter, Prof. A. R. Dar, Director NIT, Dr. A. H. Moon, Director NIELET, Er. Masharib Gul Mufti, DGM BSNL and Er. M. Ashraf Fazili, Chairman IEI J&K SC as guests of honor and chief guests.

The department of Computer Science and Engineering, National Institute of Technology Srinagar, organized Exordium 2017 - the code festival, a run up event of Global Conference

on Cyber Space 2017 (*gccs2017.in*) from 3rd of November to 7th of November, 2017 at NIT Srinagar. The festival included workshops, coding contest etc.

4.1.8 . DEPARTMENT OF INFORMATION TECHNOLOGY

Head: Mr. Shabir Ahmad Sofi

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 = 08				

R&D Work:**I. Paper published:**

S No.	Name of the Staff Member	Title of the Paper	Conference/ Journals where Published	Date of Publishment
1	Shabir Ahmad Sofi	Natural algorithm based adaptive protocol for Underwater Wireless Sensor Networks	WiSPNET-2017	22 March - 24 March, 2017
2	Shabir Ahmad Sofi	Byzantine Attacks in energy constrained wireless sensor networks	International Journal of Wireless Communication	January 2017

3	Shabir Ahmad Sofi	Securing Adhoc Wireless sensor networks under Byzantine Attacks by implementing non cryptographic methods	Advances in technology innovation (AITI)	2017
4	Shabir Ahmad Sofi	Performance and analysis of cluster based protocols for energy efficient wireless sensor network	Networking and communication engineering	2016
5	Neelam Saleem Khan	Secure Metadata based search over Encrypted Cloud Data Supporting Similarity Ranking	International Journal of Computer Science and Information Security	March 2017

II. Programmes Attended by Staff (Conferences/Courses/ Trainings):

S No.	Name of the Staff Member	Name of the Programme Attended	Institute Where Attended	Date
1.	Jahangeer Ali	Short term Industry Oriented Course on Building Blocks for 5G Communication	IIT Roorkee	10 April,2017 to 14 April,2017
2.	Shabir Ahmad Sofi	NBHM Sponsered Conference on Computational and theoretical partial differential equations (CCT-PDE2016)	NIT Goa	5-7October,2016

III. Programmes Conducted (Conferences/ Courses/ Trainings):

S No.	Name of the Programme	Date when Conducted	Name of the Coordinators(s)	No. and Background of Participants
1	10 days Training Program on Big Data Analytics	10-20 March 2017	Shabir Ahmad Sofi (Principal Coordinator), Arooj Nissar, Janib ul Bashir, Iqra Altaf Geelani, Kalimullah Lone, Jahangeer Ali, Farhana Nazir Wani, Insha Altaf, Rameesa Mufti.	139 Participants which include UG/PG Students, Faculty members, industry people and Research Scholars.

4.1.9. DEPARTMENT OF MATHEMATICS

Head: Dr. Tanweer Jalal

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 = 06			

* 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.

R&D Work:

I. Paper published:

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 & S. L. Wali	Inequalities Concerning B-Operator	Probl. Anal. Issues Anal.	5(23), No. 1 55-72, (2016)
2.	Dr. Ab. Liman, & S. L. Wali	Applications of the Schwarz lemma to inequalities for polynomials with restricted zeros	Journal of Analysis	Accepted (2017)
3.	Dr. Ab. Liman & S. L. Wali	Some Inequalities for polynomials with a multiple zeroA	Non. Fun. Aanl. Appl.,	Accepted (2017)
4.	Dr. Ab. Liman, & Irfan Ahmad	Bernstein type Inequalities between composite polynomials	South East Asian Bull. Math.	Accepted (2017)
5.	Dr. Tanweer Jalal	Some new I-lacunary generalized difference	Springer Proceedings	171, Chapter 21,

		sequence spaces in n-normed space	Math. Stat.	(2016), 249-258.
6.	Dr. Tanweer Jalal	Generalized difference sequence spaces defined by $ N, p_k $ summability and orlicz functions in semi normed space	Int. Conf. Proceedings (APMSCSET-17)	15 January, 2017
7.	Dr. Neyaz Ahmad	On the convergence of wavelet frame operator using Calderon-Zygmund operators	International Journal of Mathematical Sciences	Vol. 7, 2016, 31-36
8.	Dr. Neyaz Ahmad	Some new inequalities for wavelet frames on local fields	Anal. Theory App.	Vol. 33, No. 2 (2017), 134-148.
9.	Dr. Neyaz Ahmad	Orthogonal Gabor Systems on local fields	Filomat	Accepted
10.	Dr. Neyaz Ahmad	a-inner product on local fields of positive characteristic	Journal of Nonlinear analysis and applications	Accepted

II. Programmes Attended by Staff (Conferences/Courses/ Trainings):

S.No.	Name of the Staff Member	Name of the Programme attended	Institute where attended	Date
1.	Dr. Tanweer Jalal	National Conference on Algebra, Analysis, Coding and Cryptography	Delhi University	14-15 Oct. 2015
2.	Dr. Tanweer Jalal	International Conference on Differential Geometry Algebra and Analysis	JMI, New Delhi	15-17 Nov. 2016
3.	Dr. Tanweer Jalal	National Seminar on Recent Developments in Mathematics	Kalindi College Delhi University	12-13 Jan. 2017
4.	Dr. Ab. Liman	International Conference on Differential Geometry Algebra and Analysis	JMI, New Delhi	15-17 Nov. 2016

III. Other Activities:

(01) Ph.D Scholar completed their Ph.D degree during 2016-17.

1. Mr. Idrees Qasim (Supervisor Dr. Ab. Liman)

4.1.10. DEPARTMENT OF PHYSICS

Head: Dr. M. Ikram

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	<u>Dr. M. M. Ahmad</u>	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 = 01				

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

R & D Work

I. PAPERS PUBLISHED:

S. NO	NAME OF THE SAFF MEMBER	TITLE OF THE PAPER	CONFERENCE/ JOURNALS ETC. WHERE PUBLISHED	DATE OF PUBLISHMENT

1.	Dr. Mohd Ikram	Effect of 200 MeV Ag ¹²⁺ ion irradiations on structural, morphological and magnetic properties of HoFe _{1-x} Ni _x O ₃ (x = 0.0, 0.1, 0.3 and 0.5) thin films grown on Si (100) substrates.	Journal of Materials Science: Materials in Electronics, 27 , 3583-3590 (2016) [I.F= 1.569] .	2016
		Influence of B-site Ni Substitution for Fe ³⁺ Ion on Morphological, Optical and Magnetic Properties of HoFeO ₃ Ceramics.	Journal Applied Physics A, 5(122) ,1-8 (2016) [I.F= 1.704] .	2016
		Ion-beam-induced ferromagnetism in Mn-doped PrFeO ₃ thin films grown on Si (100).	Applied Physics A, 44 (2016) [I.F= 1.704] .	2016
		Electronic excitation-induced structural, optical, and magnetic properties of Ni-doped HoFeO ₃ thin films.	Applied Physics A, 123 ,1-10 (2017) [I.F= 1.704] .”	2017
2.	Dr Seemin Rubab	Enhanced Structural and Electrochemical Properties of LiMn ₂ O ₄ Nanocubes Status of Renewable Energy Education at University Level in India	Journal of Electronic Materials Advances in Solar Energy Science and Engineering by National Institute of Solar Energy	October 2016
3.	Dr. G. R. Khan			
<p>1. G. R. Khan, Bilal Ahmad, Effect of Quantum Confinement on Thermoelectric Properties of Vanadium Dioxide Nanofilms, Communicated (2017).</p> <p>2. G. R. Khan, K. Asokan, Bilal Ahmad, Room Temperature Tunability of Mo-doped VO₂ Thin Films across Semiconductor to Metal Phase Transition, Thin Solid Films (U.K.),625(2017)155.</p> <p>3. G. R. Khan, R. A. Khan, Gold-Gilded Zinc Oxide Nano-Diamonds: Plasmonic and Morphological Effects, International Journal of Nanoscience 16(2017)1750004.</p> <p>4. G. R. Khan, Exact Solution of Multidimensional Hyper-Radial Schrodinger Equation for Many-Electron Quantum Systems, International Journal of Quantum</p>				

Chemistry,116(2016) 915; ibid: Quantum Matter,5(2016)1.

5. **G. R. Khan**, A. Kandasami, B. A. Bhat, Augmentation of Thermoelectric Performance of VO₂ Thin Films Irradiated by 200 MeV Ag⁹⁺-ions, Radiation Physics and Chemistry,123(2016)55.
6. **G. R. Khan**, Comprehensive Mathematical Formulism for Erbium Doped Fiber Lasers and Amplifiers, EMN Meeting on Optoelectronics, Phuket, Thailand, April 12-15(2016).
7. Bilal Ahmad, Rizwan Ahmed, Majid Hussain, **G. R. Khan**, K. Asokan, Tuning Transport Properties of VO₂ Thin Films by Reducing Film Thickness in the Nanoscale Region, International Conference on Nanotechnology for Better Living, NIT Srinagar, Kashmir, May 25-29(2016).
8. Rizwan Ahmed, Bilal Ahmad, Majid Hussain, **G. R. Khan**, Structural, Morphological and Plasmonic Properties of Silver Decorated Zinc Oxide Nanocomposites Prepared by Microwave Assisted Solution Phase Route, International Conference on Nanotechnology for Better Living, NIT Srinagar, Kashmir, May 25-29, 2016.

4.	Dr. M.A. Shah	Fabrication mechanism of compact TiO ₂ nanotubes and their photo-electrochemical ability.	Materials Research Express, 4(7)	2017
	1. Boda, M. A, & Shah A M.			
	2. Boda, M. A, & Shah M.	Augmented Photoelectrochemical Efficiency of ZnO/TiO ₂ Nanotube Heterostructures.	A. Journal of Electronic Materials: 1-6.	2017
	3. Najar, K. A, Sheikh, N. A, & Shah, M. A.	Enhancement in Tribological and Mechanical Properties of Cemented Tungsten Carbide Substrates using CVD-diamond Coatings.	Tribology in Industry, 39(1).	2017
	4. Malla A. M, Dar, F. A & Shah M. A.	Influence of precursor on structural, morphological and optical properties of hematite (α -Fe ₂ O ₃) nanoparticles	Current Nanomaterials, 2 , 39-44	2017
	5. Din, S. H, Shah, M. A, & Sheikh, N. A	Deposition of dual-layer coating on Ti6Al4V. .	Surface Topogra Metrology and Properties, 5(1),015002	2017
. Akhoun, S. A, Sofi, A. .,	Enhanced Structural and Electrochemical Properties	Journal of Electronic Materials, 46(2), 992-998.	2017	

	Rubab S., & Shah, M. A.	of LiMn ₂ O ₄ Nano-cubes.		
	7. Akhoun, S. A, Rubab, S, & Shah, M. A	A Review of Various Nanostructures to Enhance the Efficiency of Solar-Photon-Conversions.	Renewable and Alternative Energy: Concepts, Methodologies.	2016
	8. Hussain A & Shah M A	Nanotechnology: An Insight	LAPLAMBERTAcademi cPublishingISBN-13: 978-3-659-84978-7.	2016
	9. Din, S. H., Shah, M. A, & Sheikh, N. A.	Effect of CVD-Diamond on the Tribological and Mechanical Performance of Titanium Alloy (Ti6Al4V).	Tribology in Industry, 38(4).	2016
	10. Din, S. H, Shah, M. A, Sheikh, N. A, Najar, K. Balaji, S., & Rao, M. S. R.	Influence of boron doping on mechanical and tribological properties in multilayer CVD-diamond coating systems	. Bulletin of Materials Science, 39(7), 1753-1761.	2016
	11. Maini, A., Sofi, A. H., & Shah, M A	Agglomerated Copper Oxide (CuO) Nanostructures and Their Growth Mechanism.	Advanced Science Letters, 22(4), 1042-1044.	2016
	12. Sofi, A. H., Abubakr, B., & Shah, M. A.	Enhancement of figure of merit of thermoelectric materials: a new theoretical approach.	Thermo-physics and Aeromechanics, 23(2), 255-260.	2016
	13. Najar, K. A., Sheikh, N. A., Din, S., & Shah, M. A.	Effect of CVD-diamond coatings on the tribological performance of cemented tungsten carbide substrates.	Jurnal Tribologi, 9(1), 1-17.	2016
	14. F. A. Dar, A. H. Sofi & M. A. Shah.	Synthesis & characterization Al ₂ O ₃ nanobelts through a simple route	Proc. of the Intl. Conf. on Nanotechnology NBL-2016 Vol. 3, No. 1, p. 56	2016
	15. A H. Sofi, F. A. Dar, S. A. Akhoun & M. A. Shah.	The influence of tin doping on the structural & morphology features of	.Proc. of the Intl. Conf. on Nanotechnology NBL-2016 Vol. 3, No. 1, p. 55	2016

		indium oxide		
	16. A H. Sofi, F. A. Dar, S. A. Akhoun & M. A. Shah.	Enhanced structural and optical properties of ZnO nanorods synthesized via a modified sol-gel method	Proc. of the Intl. Conf. on Nanotechnology NBL-2016 Vol. 3, No. 1, p. 43	2016
	17. A H. Sofi, F. A. Dar, S. A. Akhoun & M. A. Shah.	Growth of Fe ₂ O ₃ nanostructures prepared by a new and a fast route	Proc. of the Intl. Conf. on Nanotechnology, NBL-2016 Vol. 3, No. 1, p. 62	2016
	18. H. S. Devi, M. A. Boda, M. A. Shah, S. Parveen, & A. Hamid.	Synthesis of iron oxide nanoparticles using platanus orientalis leaves extract for antifungal activity	Journal of Environmental Nanotechnology Monitoring and Management	In communication (2017)
	19. A H. Sofi, M. A. Shah & K. Asokan.	Structural, Optical and Electrical properties of ITO Thin Films	Journal of Electronic Materials	In communication (2017)
	20. A H. Sofi, & M. A. Shah.	Copper Doped In ₂ O ₃ Ceramics Prepared by Citrate Gel Processes	Material research Express	In communication (2017).
	21. Boda, M. A., & Shah M. A.	Multi-podal TiO ₂ nanotube array having improved photoelectrochemical ability.	Journal: Applied Physics A	In communication (2017).
	22. F. A. Dar & M. A. Shah.	Enhancement in the physical properties of Al ₂ O ₃ doped by Lithium via Solution Combustion Synthesis.	Journal of Sol-Gel Science and Technology (JSST)	In communication (2017).

II. PROGRAMME ATTENDED (CONFRENCES/COURSES/TRAINING):

S. NO.	NAME OF THE SAFF MEMBER	NAME OF THE PROGRAME ATENDED	INSTITUTE WHERE ATENDED	DATE

1.	Dr. Mohd. Ikram	Second International Conference on Materials Science and Technology (ICMST2016).	Department of Physics, St. Thomas College Pala, Kerala.	June5 – 8 , 2016.
		International Conference on Multifunctional Materials for Device Application-2016 (ICMDA-2016).	Department of Physics, National Institute of Technology Patna, Bihar.	26-28, October 2016.
2.	Dr Seemin Rubab	(NIUS) Physics Teachers Workshop	HBCSE, TIFR	Feb 28- March 3, 2017
3.	Dr. M A Shah	Certificate Course on Electron Microscopy	JNU , New Delhi	27-31 July 2016
		Environmental & Human Health Risk assessment	IIT, Hyderabad	29 Aug-3 Sep 2016
		Renewable Energy Sources	JMI, New Delhi	5-12 Feb 2017
		Spectroscopy in day to day life	Agilent, New Delhi	21-23 June 2017
		Uncertainties in Physics	LUMS by ICTP	10-15 Jan 2017
		DST Re-view Meeting		17-18 March 2017

III. PROGRAMME CONDUCTED (CONFRENCES/COURSES/TRAININGS):

S.NO.	NAME OF THE PROGRAMME	DATE WHEN CONDUCTED	NAME OF COORDINATOR(S)	NO. & BACKGROUND OF PARTICIPANTS
1	International Conference on "Nanotechnology for Better Living" NBL-2016.	25- 30 May, 2017 (5 Days)	Dr. M A Shah & Prof. Kamal K Kar	500 Scientists, Research Scholars
2	Lecture Series by Prof. Sultana	15-19 March 2017	Dr. M A Shah & S Rubab	Faculty & Scholars

IV. ANY OTHER ACTIVITIES/ ACHIEVEMENTS WITH DEATALS:

1. Dr. Seemin Rubab

Extension lectures:

- (1) Conducted a session on 'Teaching mathematical concepts to pre schoolers' in Three Month's Pre-Primary Teacher Training Programme in Early Learning & Child Care at College of Education, MA Road on 18.4.2016.
- (2) Delivered a lecture on ' Hands on Mathamatics: Practical demonstration' as resource person in short term training course in Mathematics for Govt School Teachers of upper primary and secondary level on 22.6.2016 at Government college of Education, MA Road.
- (3) Delivered a lecture on ' Activity based Physics teaching in high schools' as resource person in training Program in Sciences for Govt School Science Teachers of Kashmir Province on 20.4.2016 at MPML Higher secondary, Baghe Dilawar Khan organized by College of Education, MA Road.
- (4) Delivered a lecture as resource person in 71st General Orientation Course at UGC-HRDC, Kashmir University on ' e-waste management' on 14.5.2016.
- (5) Delivered a lecture on 'Scientific Method and Science Temper' as resource person in Orientation course of newly appointed Lecturers of Kashmir division on 13.10.2016 at Government college of Education, MA Road, Srinagar.
- (6) Delivered a lecture on 'Al Haitham's contribution to Scientific Method and Science Temper' as resource person in Orientation course of newly appointed Lecturers of Kashmir division on 12.11.2016 at IASE (formerly Government college of Education, MA Road.

2. 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.	Rs. 7.80 lacs	2015- 2018	Approved for 3 years.
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3. Dr. M.A. Shah

First Time in NIT Srinagar, We organized



Prof. Kamal K. Kar
Department of Mechanical Engineering
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(UP) India
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V. PURCHASE MADE:

S. NO.	NAME OF THE EQUIPMENT/ITEM	DATE OF PURCHASE	AMOUNT OF PURCHASE (In Rupees)
1.	UV-Visible-NIR Spectrometer with accessories	2016	Rs.8,54,786/=
2.	Ultrasonic Bath (Sonicator) with required accessories.	2016	Rs. 41,786/=
Total			Rs.8,96,572/-

4.1.11. DEPARTMENT OF CHEMISTRY

Head: Dr. Tabassum Ara

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. Hamida Chisti	Assistant Professor	Ph.D	Inorganic Chemistry
	Number of Faculty Members engaged on Contractual basis = 01			

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

I. Papers Published:-

S. No.	Name of the Staff member	Title of the Paper	Conference/ Journal, etc. where Published	Date of Publication
01.	Dr. S. A. Shah (Assoc. Prof)	<ul style="list-style-type: none"> ➤ “Studies on Physico-chemical Parameters of Water and Sediments of Dal Lake” ➤ Structural and optical studies of 7-methoxy -8-(3-methylbut-2-enyl)-2-chromenone (osthol), a plant based coumarin.” 	<p><i>Elixir Pollution</i></p> <p><i>OPTIK- International Journal for Light and Electron Optics (Elsevier)</i></p>	<p>2017, 103, 45573-45575</p> <p>2016, 1272802–2805.http://dx.doi.org/10.1016/j.ijleo.2015.11.224</p>
02.	Dr. Tabassum Ara (H.O.D)	<ul style="list-style-type: none"> ➤ Stereoselective synthesis and antimicrobial Activity of novel triazolyl Derivatives of steroidal sapogenin-Diosgenin ” ➤ Physicochemical Characteristics of Dal Lake and Measures Needed for its Improvement. ➤ Synthesis and biological evaluation of novel 3-O-tethered triazoles of diosgenin as potent antiproliferative agents 	<p>Innovation and recent Trends in Science and technology (IRTST) in NIT Srinagar</p> <p><i>Elixir Appl. Chem.</i></p> <p>Steroids</p>	<p>2nd-3rd April. 2016.</p> <p>99: 42768-42774 4th October 2016.</p> <p>10 November 2016</p>

		<ul style="list-style-type: none"> ➤ Synthesis and characterization of PTP/[Fe(CN)₃(dien)]H₂O nanocomposite; study of electrical, thermal and photocatalytic properties 	Chemical Physics (Elsevier)	27, April, 2016
		<ul style="list-style-type: none"> ➤ Synthesis and characterization of PTP/K[Fe(CN)₃(OH)(en)] nanocomposite: study of thermal, electrical and photocatalytic properties 	Journal of material Science: material in electronics(S pringer)	25 March, 2016
		<ul style="list-style-type: none"> ➤ Studying the electrical, thermal, and photocatalytic activity of nanocomposite of polypyrrolewith the photoadduct of K₃[Fe(CN)₆] and diethylenetriamin 	Materials Reaearch (sciELO)	18 june, 2016
03.	Dr. Kowsar Majid (Assoc. Prof)	<ul style="list-style-type: none"> ➤ Influence of Ni substitution at B-site for Fe³⁺ ions on morphological, optical, and magnetic properties of HoFeO₃ ceramics. 	Applied Physics A (Springer)	02,May 2016
		<ul style="list-style-type: none"> ➤ Synthesis,characterization,lu minescenceand magnetic properties of composite of polyaniline with nickel bisacetylacetonate complex 	Polymer Science Series B (Springer)	15,Oct. 2016
		<ul style="list-style-type: none"> ➤ Synthesis and characterization of PTP/[Fe(CN)₃(dien)]H₂O nanocomposite; study of electrical, thermal and photocatalytic properties 	Chemical Physics (Elsevier)	27,April 2016
		<ul style="list-style-type: none"> ➤ Synthesis, characterisation and study of thermal, electrical and photocatalytic activity of nanocomposite of PANI with [Co(NH₃)₄(C₁₂H₈N₂)]Cl₃.5H₂O photoadduct 	Chemical Physics (Elsevier)	13,April 2016

		<ul style="list-style-type: none"> ➤ Synthesis and characterization of PTP/K[Fe(CN)₃(OH)(en)] nanocomposite: study of thermal, electrical and photocatalytic properties 	Journal of material Science: material in electronics (Springer)	25 March, 2016
		<ul style="list-style-type: none"> ➤ Structural, optical, electrical, and thermal properties of PANI/[Co(NH₃)₂(C₂H₈N₂)₂]Cl₃ nanocomposite 	Chemical Physics (Elsevier)	19 Dec, 2016
		<ul style="list-style-type: none"> ➤ Studying the electrical, thermal, and photocatalytic activity of nanocomposite of polypyrrole with the photoadduct of K₃[Fe(CN)₆] and diethylenetriamine 	Materials Reaearch (sciELO)	18, June 2016
		<ul style="list-style-type: none"> ➤ Electromagnetic attributes a dominant factor for the enhanced EMI shielding of PANI/ Li_{0.5}Fe_{2.5x}Gd_xO₄ core shell structured nanomaterial 	Arabian Journal of chemistry (Elsevier)	03 Dec, 2016
		<ul style="list-style-type: none"> ➤ Surfactant assisted synthesis of Polythiophene/Ni_{0.5}Zn_{0.5}Fe_{2-x}Ce_xO₄ ferrite composites: Study of structural, dielectric and magnetic properties for EMI shielding applications 	PCCP (RSC)	22 March, 2017
04.	Dr. J. A. Bandy (Assist. Prof)	<ul style="list-style-type: none"> ➤ Alia Farozi, Javid A. Bandy*, S. A. Shah. “Structural and optical studies of 7-methoxy-8-(3-methylbut-2-enyl)-2-chromenone (osthol), a 	<i>OPTIK-International Journal for Light and Electron Optics</i>	2016 , 127, 2802–2805.

		<p>plantbasedcoumarin.”</p> <p>http://dx.doi.org/10.1016/j.ijleo.2015.11.224</p> <p>➤ Subramani Kandhasamy, Sathiamurthi Perumal, Balaraman Madhan, Narayanan Umamaheswari, Javid A. Bandy, Paramasivan T. Perumal, Vichangal Pridiuldi Santhanakrishnan.</p> <p>“Fabrication of Collagen-Coated Ostholamide Electrospun Nanofiber Scaffold for Wound Healing”.</p> <p>10.1021/acsami.6b16488</p>	<p>(Elsevier),</p> <p><i>ACS- Applied materials and Interfaces,</i></p>	<p>2017,9 (10), 8556–8568.DOI:</p>
05.	Dr. Hamida Chishti (Assist. Prof)	<p>➤ Quantitative analysis of the essential oil of Origanum vulgare (L) growing in the Kashmir valley</p>	International Journal of Applied Research	2016

II. Any Other Activity/Achievement with details

S. No.	Name of the Staff member	Activity / Achievement
1	Dr. Javid Ah. Bandy (Assist. Prof)	Conducted the Practical Examinations of 2 nd Semester M. Sc. Chemistry at P. G. Department of Chemistry, S. P. College Srinagar (4-5 January, 2017).

IV- Purchases Made:-

S. No.	Name of the Staff member	Name of the Equipment/ Item	Date of Purchase	Amount of Purchase
01.	Dr. Tabassum Ara (H.O.D)	Microwave Synthesizer	2016	31,786 EUR Including Taxes etc.
02.	Dr. Kowsar Majid (Assoc. Prof)	Muffle furnace	2016	94,943/= Including VAT

4.1.12. DEPARTMENT OF HUMANITIES AND SOCIAL SCIENCES

Head: Mir Mukhtar Ahmad

Introduction

INTRODUCTION

1.0. Education System

The Department of Humanities and Social Sciences, which is one of the oldest departments of the institute, is contributing to the academics by offering various courses in English, Management, Economics and Entrepreneurship at B.Tech level and Research Methodology and Communication Skills at M.Tech level. The students of B. Tech & M. Tech are introduced to the basic concepts and advanced studies in the above mentioned subjects. As these courses equip the engineering students with the professional skills, the department makes every effort to keep these courses updated. It tries to amalgamate the field of engineering and the field of management by equipping students with the technical expertise and leadership skills as are required to advance their career in the fast-paced world of competition.

The subjects like Management and Economics play an excellent role in developing the managerial and professional capabilities of the students who have a potential market both in public and private companies of India and foreign countries. The courses are intended to enhance their employment opportunities in the growing corporate sector and bring together the technological problem-solving savvy of *engineering* and the organizational, administrative, and planning abilities of *management* in order to oversee complex enterprises from conception to completion. Apart from it, the Department has many programs of higher learning in mind but the non availability of staff is the main impediment. For some professional courses like MBA and Diploma in Entrepreneurship, the department is making efforts both in terms of staff and infrastructure. The department is also planning to arrange some guest lecturers for the personality development of the students as per their demand. The department aims to promote student success in the Core Curriculum through advisement, support, and enrichment programs.

The Department has already submitted a proposal for the establishment of a Language and a Management Lab for improving the linguistic proficiency and the managerial skills of the students in general and academically weak, SC/ST & backward students in particular. Due to the continuing problem of space, the development of Language and Management lab could not be taken up. However, forty computers have been provided by the institute for the same which shall be installed once the infrastructure for the lab is ready.

Faculty

Due to retirement of senior staff, department is left with very limited faculty. Additional requirement of teachers is being met by contractual appointment presently and efforts are on to recruit permanent faculty at the earliest.

<u>S.N</u>	<u>Name of staff member</u>	<u>Designation</u>	<u>Qualification</u>	<u>Specialization</u>
1.	Dr Mohammad Farooq Lala	Professor	B.Sc MBA Ph.D	Finance & Marketing

2.	Mr. Mir Mukhtar Ahmad	Associate Professor	B.Com M.Com L.L.B	Marketing & Economics
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Number of Faculty Members engaged on Contractual basis = 03

TEACHING PROGRAMMES

The Department is offering courses to all branches of B.Tech students and one course to M.Tech students.

R & D Work

I Papers Published by the Staff/Research Scholar

S.No.	Name of the Staff Members	Title of the Papers	Conferences/Journals etc. where Published	Date of Publishing
1.	Ather Sidiq Zarger	Theoretical Framework of Service Quality Dimensions with Special Reference to J&K State	International Journal of Humanities and Social Sciences	November, 2016
2.	Dr. Rasak Annayat	Learning English through Literature	Meethaq	March, 2017
3.	Dr. Rasak Annayat	A Study of Self-Concept of Adolescent Boys and Girls in Zone Keegam of District Shopian	Journal of Society in Kashmir	June, 2016

II. Programme attended by the staff (Conferences/ Courses/ Trainings):

S.No.	Name of the Staff Members	Name of the programme attended	Institute where attended	Date
1.	Dr. Fouzia Jan	National Conference on Entrepreneurship: Opportunities and Challenges in the Contemporary World	University of Kashmir	March, 2017

III. Any other activity /achievement with details:

The department is actively involved in research activities. Presently two research scholars are on the rolls of the department and are pursuing their research activities rigorously. The department has also devised a comprehensive course line for remedial coaching classes, where the students with weak language and communication skills are trained to improve their speaking and writing skills. A set of well-designed tutorial pack is prepared under the supervision of the senior faculty and the same is administered to these students with proper instructions, supervision and guidance. To achieve this objective the department is in the process of establishing a language-lab for which preliminary work has already started and some equipment has been provided by the institution.

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, journals and 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.

iii) 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 AndDevelopmentActivities

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:

- a) Wear and Lubrication
- b) Noise and Vibration

- c) Non – destructive Testing
- d) Welding and Plasma coating
- e) Data acquisition and elaboration

2. Facilities Presently Available:

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

- i) CP30D Programmable Logic Controller.
- ii) MIG welding equipment - one set.
- iii) TIG welding equipment - one set.
- iv) Arc welding equipment – 2 sets.
- v) Ultrasonic (Gildran MG12) flaw detector with automatic monitor.
- vi) Wear testing machine pin ring.
- vii) Wear testing machine pin disk.
- viii) Automatic Hardness meter.
- ix) Pneumatic control model fitted with electrical control.
- x) Pneumatic control with double acting cylinders..
- xi) Pneumatic control fitted with sel1, sel2 and sel3.
- xii) 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.

3. 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

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 has extended the facilities of internet to hostels including girls hostels through WiFi systems.

The Centre also manages the Website of the Institute under the NITSRI, URL address www.nitsri.ac.in. The Centre during the period under report augmented the Computer Centre by purchase of 50 Desktops of latest configuration and other equipments for around Rs. 28.00 lacs for use of the students.

4.2.4 Central Research Facilities Centre

Head of the Centre: Prof. M. F. Wani, Professor, Mechanical Engg. Dept.

This Centre has been established with a vision to provide high end state of the art equipments like SEM, XRD, EDX etc. at the centralized place and to cater to research requirement of multi disciplinary nature. The centre has already

made the SEM apparatus functional for use by the faculty and the research scholars. The purchase of equipments like XRD, EDX are in final stage of procurement. The Centre is run under the supervision of faculty group derived from different departments of the institute.

4.2.5 Innovation, Incubation and Entrepreneurship Development Centre :

Head of the Centre: Er. Saad Pervaiz, Associate Professor, Dept. of Mechanical Engineering

The Institute had since long established an Industry Institute Interaction Cell and Entrepreneurship Cell. The main object of these Cells was 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.

In view of the prevailing scenario for encouraging innovation and enterprise, it was decided to establish a centre where activities related to innovation, incubation and entrepreneurship could be undertaken in a coordinated manner on modern approaches. Accordingly these two cells were merged and renamed centre under the title “ Innovation, Incubation and Entrepreneurship Development Centre” was established due approval of the Competent Authority. The Centre has already started extending its technical support to young Innovators and has held number of interactions with the local industrialists. The Centre is in the process of preparation of a DPR for establishing a major innovation centre for the benefit of the region.

An advisory committee has been constituted having an Interdisciplinary representation to guide the activities of the Centre.

5.0. STUDENT WELFARE

5.1 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 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.

Various scholarships availed by the students of the institute areas under:

1	Ph.D. Scholarships
2.	M. Tech (GATE) Scholarship
3.	Aid from Students Welfare Fund
4.	Post Matric Scholarship
5.	H & W Scholarship
6.	Merit/Merit-cum means Scholarship (MOMA)
7.	S.T. Scholarships
8.	S.C. Scholarship
9.	Scholarships of Social Welfare Departments of different states and other agencies

10	Directorate of Technical Education, Chattisgarh scholarship
11	Labour Commissioner J&K scholarships

5.3 Welfare Schemes for staff:

- I) Staff welfare fund: 23 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, recoverable in 20 installments.
- II) Benevolent Fund :During the period no financial assistance were provided to any staff member.

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 quizzes, mock tests ,mock group discussions etc.

The details of the students of the institute placed in different organizations during the year 2016-17 are given in the following table:

Batch-wise placement data for the year: 2016-17 (Batch-2013)											
S.No.	Name of Company visited	Civil	ELE	CSE	MECH	ECE	CHEM	METT	IT	Total	CTC/Annum
1.	VEDANTA	-	2	-	2	-	1	-	-	5	8.00LPA
2.	Bharat Aluminum Company	-	-	-	-	-	1	-	-	1	4.50 LPA
3.	Gray-B	-	-	-	-	-	1	-	-	1	4.20 LPA
4.	Afcons Infrastructure	2	-	-	-	-	-	-	-	2	4.80 LPA
5.	Career Point	1	-	-	-	-	-	-	-	1	4.800 LPA
6.	Avanti Private Limited	1	-	-	-	-	-	-	-	1	4.20 LPA
7.	Raspitech	-	-	1	-	-	-	-	1	2	4.50 LPA

8.	Allen	-	1	-	-	-	-	-	-	1	4.80 LPA
9.	Sagacious Research	-	2	3	-	1	-	-	-	6	4.50 LPA
10.	IOCL	-	4	-	5	-	-	-	-	9	12.5 LPA
11.	Accenture	-	1	-	-	-	-	-	-	1	4.50 LPA
12.	Infosys	-	2	5	-	6	1	1	1	16	3.25 LPA
13.	Capgemini	-	-	7	1	3	-	-	-	11	6.00 LPA
14.	Intellect Design	-	-	2	-	-	-	-	-	2	5.00 LPA
15.	Sapient	-	-	1	-	-	1	-	-	2	6.50 LPA
16.	Sprinklr	-	-	1	-	-	-	-	-	1	10.00 LPA
17.	Maruti Suzuki	-	-	2	3	-	-	-	-	5	6.95 LPA
18.	HPCL	-	-	-	4	-	-	-	-	4	12.5 LPA
19.	TATA Motors	-	-	-	5	-	-	-	-	5	6.50 LPA
20.	Ashoka Leyland	-	-	-	2	-	-	-	-	2	6.50 LPA
21.	Gravita India	-	-	-	1	-	-	-	-	1	4.50 LPA
22.	SKF Bearings	-	-	-	1	-	-	-	-	1	4.50 LPA
23.	Shaljon Technologies	-	-	-	-	24	-	-	-	24	3.20 LPA
24.	Intellect Design Arena Pvt. Ltd.	-	-	-	-	7	-	-	8	15	5.00 LPA
25.	CDK Global	-	-	-	-	1	-	-	1	2	8.00 LPA
26.	TEK Systems	-	-	-	-	-	-	-	1	1	6.50 LPA
27.	Indian Seamless Metal Tubes	-	-	-	-	-	-	3	-	3	3.20 LPA
28.	Jindal Steel	-	-	-	-	-	-	1	-	1	6.40 LPA
29.	Gravita	-	-	-	-	-	-	4	-	4	4.50 LPA
30.	PGCIL	-	10	-	-	-	-	-	-	10	12.5 LPA
	Total	4	22	22	24	42	5	9	12	140	

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 which had suffered huge losses due to September 2014 floods took number of steps for making up the losses and books worth around 30 lacs were purchased and a massive renovation is going on.

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

<u>Electronic Resources</u>	<u>URL</u>
ASCE Journals online	www.pubs.asce.org/journals/jrns.html
ASME Journals online	www.asme.org/pubs/journals
IEL online	http://ieeexplore.ieee.org
India standards	internet version
Nature	www.nature.com
Pro quest science	http://www.il.proquest.com/pqdauto
Springer verlag	www.springerlink.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 are issued to the students for one semester. The aim is to help this weaker section of the society.

6.3 Planning & Development Wing

The Planning & Development Wing of this Institute is responsible for executing the maintenance works up to tune of Rs.60.00 Lacs & rest major works are being executed through CPWD. The following listed works have been executed by P & D Wing during 2016-2017:

The renovation works as well as new works which were carried out by P&D wing during the 2016-17 are as under:

S: No.	Name of work	Work done cost
1.	<i>Renovation / Face lifting of existing structures of the Institute</i>	
	<i>(I) Renovation of Administration Block</i>	<i>Rs. 1,34,19,966.00</i>
	<i>(II) Renovation of Toilet Blocks of Administrative block & Academic Block.</i>	<i>Rs. 66,48,600.00</i>
2	<i>Augmentation of Street lighting at NIT</i>	<i>Rs. 1,50,00,000.00</i>
3	<i>Renovation & Up-gradation of power station.</i>	<i>Rs.2,00,00,000.00</i>
4	<i>Laying of underground electrical cable for the entire campus at NIT.</i>	<i>Rs. 1,96,34,000.00</i>
5	<i>SITC of Tri-vector meter and LT cables for new 2x1500 KVA substation of NIT campus Srinagar.</i>	<i>Rs. 25,27,865.00</i>
6	<i>Renovation / Up-gradation of EI & Exhaust Fan of Bath Room Block in Academic Area.</i>	<i>Rs. 28,61,557.00</i>
7	<i>500 KVA online noise DG set</i>	<i>Rs. 80,0000.00</i>
8	<i>Installation of CCTV's</i>	<i>Rs. 1,27,00,000.00</i>
9	<i>Raising of 2nd Storey over portion of Computer Center Building.</i>	<i>Rs. 24,79,830.00</i>
10	<i>Construction of Pathways</i>	<i>Rs. 41,08,950.00</i>
11	<i>Fencing of Different Parks With 4 ft height with chain link Fencing"</i>	<i>Rs. 24,92,513.00</i>
12	<i>Construction of additional Parking Space</i>	<i>Rs. 31,52,525.00</i>
13	<i>Renovations works e.g.; Painting of Indus & Chenab Hostel (Flood Damaged), Renovation of reception centre, Renovation of Fluid Mechanics Lab etc.</i>	<i>Rs. 1,13,000.00</i>

6.4. CENTRAL WORKSHOP

Senior Technical Officer : Er. S.I.A. Qadri

- Technical Officers:**
- 1. Mr. A. H. Khan,**
 - 2. Mr. G. N. Lollpuri**

Introduction

The field of engineering continues to grow rapidly, transcending disciplines and driving economic growth. Workshop practice have become more significant in the industrial environment to manufacture products for the service of the mankind. Workshop Practice is a core subject and is highly essential for all engineers and technocrats for formalizing themselves with the latest techniques and concepts of manufacturing. The basic requirement is to impart instructions and practical knowledge of workshop technology to all the engineering students. In addition to introduction to various tools, processes and materials, live practical demonstration has been prepared for various trades in the workshop.

A well equipped workshop forms the most important centre in all the Engineering institutions for training of students of all the branches and trades. The students are trained to acquire basic knowledge and skills about engineering materials, manufacturing practices, equipment, tools and safety precautions to be observed during manufacturing of different products. The students carry out manual operations using mostly hand tools and elementary machines in the carpentry, pattern making, bench work and fitting, welding, sheet metal, black smithy and forging, machining, foundry and casting trades etc.. These trades are relevant and common to most of the industries manufacturing and repairing mechanical, electrical, computers, and electronics, instrument and control products.

The student has to acquire practical knowledge and skills of using machines and equipment, various cutting, measuring and marking tools, performing main operations through simple exercises.

The Central Workshop provides facilities in various trades of fabrication and manufacturing.

The workshop is a Central facility and provides full assistance to the students of all departments to under take the classes of Workshop Practice and provides practical training in all its nine engineering streams and also looks after the transport section with an aim to provide the transport to the students for technical tours and other related functions.

The primary objective of the Central Workshop is to impart the workshop practice to the engineering students and carry out the fabrication of project work of B. Tech and M. Tech students besides it plays pivotal role in maintenance and repair work of Institute.

Central workshop carried out the various activities in academics and fabricates 59 numbers of different jobs and engineering projects of students during the 2015-2016 which is given as under: -

Students Project work

Central Workshop has undertaken fabrication of various jobs and projects of the final year students of B. Tech and M. Tech. during the period 2015-2016.

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 Center 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. S. K. Bukhari

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.

Sporting and recreational facilities available to:

A. 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

B. 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.

Activities undertaken:

Sports Events Conducted/ participated/ in and outside NIT Srinagar from 1st April 2016 upto 31st March 2017 is as under:

S.No.	Sports Event/s	Place and month where played/ conducted
1.	Inter-Semester Tournament in all Games (Boys & Girls)	NIT Srinagar (April 2016)
2.	Inter NIT/ IIT Tournament Hockey (Boys)	IIT Roorkee (April 2016)
3.	Open Tournament in all Games (Boys & Girls)	NIT Srinagar (April 2016)

4.	Football Tournament (Boys)	SRTC Srinagar (May 2016)
5.	Cricket Match between Alumni and Faculty of the Institute on the Eve of Alumni Day	NIT Srinagar (May 2016)
6.	Cricket Tournament with Government Dental College Srinagar	NIT Srinagar (June 2016)
7.	Karwan-i-Aman Cricket Tournament conducted by Sashashtra Seema Bal (SSB 47 th Batallion)	NIT Srinagar (June 2016)
8.	International Yoga Day (Boys and Girls)	NIT Srinagar (June 2016)
9.	National Workshop on Physical Education for all NITs	NIT Transit House Delhi (August 2016)
10.	Rashtriya Ekta Saptah	NIT Srinagar (November 2016)
11.	Observance of Fundamental Duties Day	NIT Srinagar (November 2016)
12.	Open State Basketball Championship	Indoor Games Stadium (November – December 2016)
13.	All India Inter NIT Cricket(Boys)/ Swimming (Boys & Girls) Tournaments	NIT Rourkela (January 2017)
14.	Coaching Camp for Boys & Girls in Chess & Table Tennis	NIT Srinagar (March 2017)

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;

<u>S.No.</u>	<u>Name of the Hostel</u>	<u>No. of boarders</u>
1.	Jhelum / Dal Hostel	546 students
2.	Indus Hostel	536 students (against 380 capacity)
3.	Chenab Hostel	455 students (against 294 capacity)
4.	Tawi Hostel:	407 students (against 200 capacity)

5. Girls Hostel (02 No's) 197 students.

Dr. Abdul Liman is Dean Students Welfare and Dr. Niyaz Ahmad is the Associate Dean Students Welfare.

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

<u>S.No</u>	<u>Name</u>	<u>Department</u>	<u>Hostel assigned</u>
1.	Dr. Niyaz Ahmad	Mathematics	Jehlum
2.	Dr. Atiqui Rehman	Met.&Met. Engg.	Dal & Tawi
3.	Dr. Kausar Majid	Chemistry Deptt.	Girls
4.	Er Tanveer Rasool Dar	Chemical Engg Deptt.	Indus
5	Dr. A. H. Bhat	Electrical Engg.	Day Scholar

6.9. RESIDENTIAL AND SHOPPING FACILITIES

The Institute being a residential Institute therefore campus provides residential facilities to some 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

6.10. 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. In addition 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. 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. 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 proper hygiene in the students messes and restaurants / tea stalls by advisories and inspections.

Annual Workdone statement for the year 2016-2017

Purchase Made during the year 2016-17 as under:-

S.No	Name of equipment/Instrument	Quantity	Date of purchase
01.	Nebulizer	01 No	22/4/2016
02.	X-Ray Machine (G.E –HF) Advantage with all accessories Make : G.E Health Care	01 No	13/10/2016
03.	ECG Machine(GE-MAC) 1200 ST	01 No	13/10/2016
04.	Computed Radiography (Care stream)	01 No	16/11/2016
05.	Immuno-Analyser (Tosho Japan)	01 No	3/12/2016
06.	UPS (Intex) 1000 VA	02 Nos	7/12/2016
07.	HBA1C (SD Biosenser Analyser	01 No	20/12/2016

2. Total number of patients attended..... 23197/-

(APRIL 2016 – MARCH 2017)

Total number of patient 's examination		Dressing and minor surgical Interventions		Patient's Reffered to various Hospitals		Total Lab. Investigations under taken		Total number of patients for Counsiling		Total patients admitted	
Student	Staff	Student	Staff	Student	Staff	Student	Staff	Student	Staff	Student	Staff
12030	5060	1815	960	65	35	1322	632	147	26	90	15
18090		2775		100		1954		173		105	

6.11. 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. Besides ATM of SBI has been installed in the campus.



6.12. TELEPHONE EXCHANGE

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

6.13 Transport Unit

The institute has vehicles comprising 03 cars, 02 ambulances, and a mini truck and mini Bus. Transport facilities were provided to the various experts and other Institute guests invited for placement of students and other academic activities. The transport facilities were also provided to the students for conducting the various technical tours. In addition, Ambulance service is being provided to the Medical Unit of the Institute which facilitates the students in getting the proper medical care during emergency in specialized hospital of the valley.

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 2016-2017 towards evolving directions to further growth and dissemination of scientific and technological knowledge. Brief outline of the major achievements are presented at below:

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:

- i) **Ph.D.**
- | | |
|-------------|--------------|
| a) Awarded | 11 |
| b) Pursuing | 288 |
| c) Admitted | 40 (2016-17) |
- ii) **M.Phil**
- | | |
|-------------|----|
| a) Pursuing | 01 |
| b) Admitted | - |

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 07 sponsored R &D projects amounting to about Rs.170.00 lacs.

A large number of consultancy assignments were also taken up during the year for an approximate amount of Rs.99.00 lacs.

Acquisition of additional Campus:

- The efforts for the acquisition of additional land were continued by the Institute and Government of J&K has ensured in a meeting chaired by Hon'ble Chief Minister that State Government will identify a suitable land for the purpose.

Seminars, Workshops and other programmes conducted:

- Short Courses / Workshops ---- 03

Placement:

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

8.0. THE COUNCIL, BOG AND OTHER COMMITTEES

8.1. NIT 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)	Dr. M. J. Zarabi (Chairman, Board of Governors, NIT Srinagar), C/o. C-28, Pamposh Enclave, Greater Kailash Part-1, New Delhi-110048
Ex-Officio	(b)	Prof. Rajat Gupta Director, National Institute of Technology Srinagar, Hazratbal, Kashmir-190006
<i>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</i>	(c)	Mr. S. P. Goyal, Joint Secretary (NITs & DL), Ministry of Human Resource Development, Department of Secondary & Higher Education, Government of India, New Delhi
	(c)	Smt. Darshana Momaya Dabral, Joint Secretary & FA, Ministry of Human Resource Development, Department of Secondary & Higher, Government of India, New Delhi.
<i>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</i>	(d)	Commissioner Secretary, Higher & Technical Education Dept., Government of Jammu and Kashmir, Civil Secretariat, Srinagar / Jammu.
	(d)	Mr. Sheikh Zubair Aslam, Hassan Sons Group, Srinagar Kashmir
<i>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</i>	(e)	Dr. Prema Ramchandran, Director, Nutrition Foundation of India, Delhi
	(e)	
<i>One Professor and one Assistant Professor or a Lecturer of the Institute to be nominated by the Senate</i>	(f)	Prof. Rajinder Ambardar, Metallurgical & Materials Engineering Department, National Institute of Technology Srinagar.
	(f)	Dr. Mohammad Hanief, Assistant Professor, Mechanical Engineering Department, NIT Srinagar
Member-Secretary	Section 18 Clause (2)	Prof. Fayaz Ahmad Mir, Registrar I/C, NIT, Srinagar.

8.3. FINANCE COMMITTEE:

<u>Chairman</u>		Dr. M. J. Zarabi, (Chairman, Board of Governors, NIT Srinagar), C/o. C-28, Pamposh Enclave, Greater Kailash Part-1, New Delhi-110048
<u>Members:</u> Two persons nominated by the Central Government	1	Mr. S. P. Goyal, Joint Secretary (NITs & DL), Ministry of Human Resource Development, Department of Secondary & Higher Education, Government of India, New Delhi
	2	Smt. Darshana Momaya Dabral, Joint Secretary & FA, Ministry of Human Resource Development, Department of Secondary & Higher, Government of India, New Delhi.
Two persons nominated by the BOG from amongst its members	1	Prof. G. M. Rather, Professor & Head, Electronics & Comm. Engg. Deptt., National Institute of Technology Srinagar.
	2	
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),
<i>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</i>	1	<u>FIELD OF SCIENCE:</u> Prof. Veena Chowdhary, Centre for Polymer Science, Indian Institute of Technology, Hauz Khas, New Delhi.
	2	<u>FIELD OF ENGINEERING:</u> Prof. P. D. Porey, Director, Sardar Vallabhbhai National Institute of Technology Surat, Gujarat-395007
	3	<u>FIELD OF HUMANITIES:</u> Prof. Abdul Wahid, Vice-Chancellor, Central University of Kashmir, Srinagar (J&K)
		Mr. Rajesh Uppal, Executive Director IT & CIO, Information Technology Division, Maruti Suzuki India Ltd., Palam Gurgaon Road, Gurgaon-122015 (Haryana) E mail: Rajesh.Uppal@maruti.co.in
<i>The Professors appointed or recognized as such by the Institute for the purpose of imparting instructions in the Institute.</i>	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 1 st & 2 nd 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
<u>Members:</u> Nominated by MHRD and IFD New Delhi	1	Director OR Deputy Secretary (NITs), MHRD, Department of Secondary & Higher Education, Government of India, New Delhi – 110 001.
	2	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. Javed Ahmad Bhat, Civil Engineering Department, NIT Srinagar
Nominee of the CPWD / State PWD	1	Mr. Dhiraj Kumar , , Superintendent Engineer (Civil), CPWD, Chandigarh.
	2	Shri Prabhakar Kumar Verma, Chief Architect, CPWD, Chandigarh
	3	Prof. Javed Ahmad Bhat, Associate Dean, P&D, NIT Srinagar
	4	Shri Rajiv Sao, Superintendent Engineer, CPWD Chandigarh
	5	Executive Engineer (Civil), CPWD, Srinagar.
	6	Er. Aijaz Ahmad 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:

<i>Name of Statutory Committee</i>	<i>Date of the meeting</i>
<i>Senate</i>	<ol style="list-style-type: none"> 1. 08-04-2016 2. 31-12-2016
<i>Building Works Committee</i>	<ol style="list-style-type: none"> 1. 22-04-2016 2. 01-09-2016 3. 03-10-2016
<i>Finance Committee</i>	<ol style="list-style-type: none"> 1. 11-04-2016 2. 04-10-2016
<i>Board of Governors</i>	<ol style="list-style-type: none"> 1. 11-04-2016 2. 03-06-2016 3. 04-10-2016 / 13-10-2016