

# NATIONAL INSTITUTE OF TECHNOLOGY KARNATAKA SURATHKAL MANGALORE - 575 025 INDIA



ANNUAL REPORT 2017-18

#### **VISION**

To facilitate transformation of students into good human beings, responsible citizens and competent professionals, focusing on assimilation, generation and dissemination of knowledge.

#### **MISSION**

- Impart quality education to meet the needs of profession and society and achieve excellence in teaching-learning and research.
- Attract and develop talented and committed human resource ,and provide an environment conducive to innovation, creativity, team-spirit and entrepreneurial leadership.
- Facilitate effective interactions among faculty and students, and foster networking with alumni, industries, institutions and other stake-holders.
- Practise and promote high standards of professional ethics, transparency and accountability.



# NATIONAL INSTITUTE OF TECHNOLOGY KARNATAKA SURATHKAL MANGALORE - 575 025 INDIA



# ANNUAL REPORT 2017-18

Website: www.nitk.ac.in Tel: 0824-2474000 (7 lines)

E-mail: director@nitk.ac.in Fax: 0824-2474033

## NITK Surathkal - at a Glance

#### **GOVERNANCE**

NITK is governed by the Board of Governors, which consists of representatives of the Government of India, Government of Karnataka, Industry, Alumni, and other nominees. The Chairman of the Board is nominated by the Government of India. The Director is the administrative head of the Institute. NITK an "Institute of National Importance", is governed by NIT Act 2007 and statutes laid down by Government of India. Reconstituted Board of Governors is in place since September 2011.

#### TEAM NITK

14 Departments

229 highly qualified and dedicated faculty

166 committed supporting staff

5395 talented and motivated students

#### LIST OF DEPARTMENTS

- Applied Mechanics & Hydraulics
- Chemical Engineering
- Chemistry
- Civil Engineering
- Computer Science & Engineering
- Electronics & Communication Engineering
- Electrical & Electronics Engineering
- Information Technology
- Mathematical & Computational Sciences
- Mechanical Engineering
- Metallurgical & Materials Engineering
- Mining Engineering
- Physics

#### **SCHOOLS**

School of Management

#### **Academic Programs**

B.Tech. - 9 disciplines

M.Tech. – 25 Specializations

M.Tech. (Research) – All Specializations

**MBA** 

**MCA** 

M.Sc. (Chemistry)

M.Sc. (Physics)

Ph. D. - offered in all departments

All the Departments of the Institute are recognized QIP centres for admission of teachers of both Engineering colleges and Polytechnics for their post-graduate & doctoral studies.

#### INTERDISCIPLINARY CENTERS OF EXCELLENCE

Disaster Risk Reduction

Innovation

Material Research

Sustainable Technologies

System Design (Virtual Instrumentation)

Wireless Sensor Networks

#### **ASSOCIATED CENTRES**

Centre for Continuing Education, R&D center for - clay, Roofing Tiles & Ceramic Products, Industry Institute Partnership Cell; NITK Science and Technology Entrepreneurs Park (NITK-STEP).

#### **CAMPUS**

295 acres of lush green beach-side campus located at Srinivasnagar, Surathkal Mangalore. Departments & facilities on Eastern and Western sides of NH-66 with connectivity through a 2-lane vehicular underpass.

Well connected by rail and road to the rest of country. Flights available to major Indian cities and International destinations.

#### **FACILITIES & SUPPORTS**

150 + Classrooms, 140+ laboratories

12 hostel blocks for boys, 5 hostel blocks for girls. Mega Hostel for boys with 1512 single-seater rooms. New Ladies Hostel with 347 single –seater room. Internet connectivity (1Gpbs, 155 Mbps, 6000 nodes) Central computer Center, Central Library, E-Library, On-line access to journals 1200-capacity

Auditorium, 1800-capacity Open-air theatre, Co-Operatives stores, Post office, Banks, ATMs, Health Care Centre with many visiting specialist doctors, Yoga Centre, 3 Campus schools (Kannada & English Medium), Guest House, Food Court and Canteens, International standard Swimming – Pool, Sports Grounds for cricket, hockey, football floodlit Courts for Basketball, Volley ball and Tennis, NCC – 2nd Karnataka Engineering Company, Surathkal Innovation Challenge (SIC), Student Internship Progaramme (SIP).

#### **BUDGET (2017-18)**

Total Financial Outlay Rs. 220.20 Crores

Internal Revenue Generated Rs. 46.24 Crores

Consultancy & Testing Earnings Rs. 1.30 Crores

Corpus Fund of more than Rs.178.94 Crores

#### **PUBLICATIONS (2017-18)**

International Journals - 514

National Journals - 11

International Conference - 395

National Conference - 29

#### **DOCTORAL OUTPUT**

2015-16 - 79 candidates

2016-17 - 57 candidates

2017-18 - 58 candidates

Doctoral students on rolls -775

#### **EXTRA AND CO-CURRICULAR ACTIVITIES**

More than 30 clubs, societies and professional body chapters are active conducting regular activities through elected leaders and representatives. "INCIDENT" and "ENGINEEER" are popular cultural and technical annual festivals. NITK has won the overall championship of Inter NIT Sports consecutively for the last 3 years.

### TRAINING AND PLACEMENT

NITK is ranked among the top institutions for student placements. During 2017-18 about 212 companies visited. UG placements 91.31%, and 52.95% PG students got placement through the campus

selection. The department also facilitates internships for students within India and overseas.

#### **SCHOLARSHIPS & MEDALS**

Several well known and prestigious scholarship (25) awards and medals (66) are on offer for students at all levels. This is in addition to all regular scholarships of Govt. of India and Other State Governments. SPARSH and several other scholarship opportunities

#### **MOUs between Foreign Countries**

- Rambal India limited, Thiruporur, Tamil Nadu, 5<sup>th</sup> March 2018, 3 years TEQIP
- University of District of Columbia (UDC) School of Engineering and Applied Science Washington, USA, 18 January 2018, 5 years
- 3. Internshala, 18th January 2018, 3 years
- Gheorghe Asachi, Technical university of Lasi, Romania, under Erasmus + Programme, 9<sup>th</sup> January 2018
- 5. Networkers Home New Delhi, 6th December 2017, 1 year
- 6. Mangalore Refinery and Petrochemicals Ltd. (MRPL), 4<sup>th</sup> December 2017, 10 years
- 7. IEEE Power and Energy Society Bangalore chapter, 25<sup>th</sup> October, 2017
- 8. AMD India Private limited ("AMD India"), 8<sup>th</sup> April 2017, 2 years
- Infineon Technologies Asia Pacific Pte Ltd, 6<sup>th</sup> April, 2017, 5 years

#### **TEQIP - III**

NITK has been consistently identified as one of the top performers in implementing the TEQIP project. Based on the good performance in TEQIP – I and TEQIP – II and on the merit & Strength of our institutional Development Proposal (IDP) for TEQIP-III, our Institute has been selected to participate in TEQIP – III with a total outlay of Rs. 700 lakhs. TEQIP – III commenced with effect from – 01-04-2017. Our Institute has been designated as Mentor institute for Government Engineering college, Jhalawar, Rajasthan. A Memorandum of understanding (MoU) with MHRD and agreement between NIT and Mentee Institute GEC Jhalawar have been signed on 7th july 2017.

# **ANNUAL REPORT 2017-2018**

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### 1.0 THE INSTITUTE

#### 1.1 HISTORICAL BACKGROUND

National Institute of Technology Surathkal, Karnataka (NITK) formerly known as Karnataka Regional Engineering College (KREC) Surathkal, was established the year 1960 at Srinivasnagar. Mangalore, Karnataka State. Sri U. Srinivasa Mallya, a visionary philanthropist was instrumental in the establishment of this Institute and hence the campus is named after him as "Srinivasnagar". KREC made a small yet significant beginning with 3 Departments offering BE programs in Civil, Mechanical and Electrical Engineering. Since then KREC grew from strength to strength and set unprecedented records in the field of technical education in the country. Initially the College was affiliated to the University of Mysore but in 1980 the affiliation was transferred Mangalore to the University. With every passing batch of students who went on to conquer unexplored domains in the service of humanity, the stature of KREC grew and the world recognized and applauded. So much so, 'Surathkal' is synonymous with high quality engineering education. In 2002, the Government of India decided to grant full autonomy and accordingly the College was elevated to the status of Deemed University and renamed as the National Institute of Technology Karnataka. Subsquently, the National Institute of Technology Act, 2007 was enacted by the Parliament of India to declare India's National Institutes of Technology Institutes of National Importance. The Act received the assent of the President of India on 5thJune, 2007 and became effective fromAugust 15, 2007. The Institute is governed by the rules and statutes of the NIT Act.

The Institute has established itself as a premier center engaged in imparting technological quality education and providing support research to and development activities. The Institute has a long tradition of research for several decades in both traditional and modern areas of engineering and sciences in all departments. The Institute has been actively involved in applied research in

looking at and resolving problems faced by the society in several areas. NITK attracts students from all over the country and abroad. NITK graduates are sought after by top industries/companies and the Institute has been rated as one of the best Institutions in the country with regard to student placements. Many of its alumni occupy coveted positions both in India and abroad and are a source of pride and inspiration to the Institute. NITK is consistently rated among the top engineering and technological institutes in India. Today, the Institute offers nine B. Tech programmes, 27 Post Graduate programmes and Doctoral programmes in all its fourteen Departments and is making significant advances in R&D and outreach activities too.

#### 1.2 LOCATION

The Institute is located at Srinivasnagar, Surathkal in the Dakshina Kannada District of Karnataka State, 21 km. North of Mangalore city on either side of NH.66 which cuts across the campus. The campus is well connected by rail, road, air and sea with the rest of the country. The airport is situated at Bajpe, 20 km from Surathkal. The nearest Railway station is Surathkal (3 km.) which is on Mangalore-Mumbai Konkan Railway route and the nearest sea port is New Mangalore which is 8 km, south of college campus.

#### 1.3 CAMPUS

The campus covers an area of 295 acres in picturesque surroundings with Western Ghats in the East and the West Arabian Sea in the West. The campus is well laid out with roads, electrical installation, water supply, underground drainage etc. The campus being on the seashore, is blessed with clean air and a healthy climate. The National Highway NH 66 separates the campus into Western Side and Eastern Side campus. The Western Side of the campus houses the Departmentsof E&E, E&C, Computer and Information Technology, Guest Houses, STEP, Yoga centre and pristine beach

# 2 GOVERNACE & ADMINISTRATION

#### 2.1 ADMINISTRATION

NITK is governed by the Board of Governors which consists of representatives of the Government of India, Governemnt of Karnataka, Alumni, Industry and other nominees. The Chairman of the Board is nominated by the Government of India. The Director is the administrative head of the Institute. The functioning of NITK is governed by NITSER Act 2007 and rules laid down by Government of India.

# COUNCIL, BOG AND OTHER COMMITTEES

#### **COUNCIL OF NITS**

- 1 Minister of HRD, Government of India
- 2 Education Secretary, Ministry of HRD, Government of India
- 3 The Chairperson of National Institute of Technology Karnataka, Surathkal
- 4 Director of National Institute of Technology Karnataka, Surathkal
- 5 Chairman, UGC
- 6 Chairman, All India Council for Technical Education
- 7 Director, General, Council for Scientific and Industrial Research
- 8 Secretary, Department of Bio-Technology, Government of India
- 9 Secretary, Department of Atomic Energy, Government of India
- 10 Secretary, Department of Information Technology, GOI
- 11 Secretary, Department of Space, Government of India
- 12 Not less than three but not more than five persons to be nominated Member by the Visitor, at lease one of whom shall be a women, having special knowledge or practical experience in respect of education, industry, science or technology
- 13 Three members of Parliament, of whom two shall be chosen by the Member House of the people and one by the Council of States
- 14 Two Secretaries to the State Government, from amongst the ministries Member or departments of

that Government dealing with technical education Two Secretaries to the State Government, from amongst the ministries Member or departments of that Government dealing with technical education

- 15 Financial Adviser, Ministry Government of India
- 16 Joint Secretary (Technical)/Addi

tional Secretary (Technical), Department of Higher Education, Ministry of HRD, GOI

### **BOARD OF GOVERNORS**

#### Chairman

Prof. K Umamaheshwar Rao Director NITK, Surathkal.

#### **Members**

Dr. Sukhbir Singh Sandhu Additional Secretary (T E), Govt. of India Dept. of Higher Education Ministry of Human Resource Development Room No. 122 'C', Shastri Bhawan, New Delhi-110 001

Ms. Darshana M. Dabral Joint Secretary and Financial Advisor Ministry of Human Resource Development Dept. of Higher Education, Technical Education Bureau Room No. 120 'C', Shastri Bhawan, NEW DELHI - 110 001.

Shri Mudda Kedarnath Advisor – Aditya Birla Group #17, Shankar Nilaya, 8th Main, 18th Cross Upper Palace Orchard, Sadashivnagar BENGALURU-560080.

Dr. Shanth Averahally Thimmaiah Managing Director M/s. METAMORPHOSIS Group of Companies "PRAKRUTI BHAVAN", #200, 1st & 2nd Floor, 1st Cross, 40th Main, Behind Central Silk Board, BTM Layout 2nd Stage, BENGALURU – 560068.

Dr. (Ms.) Lalitha R Gowda Ph.D. Former Chief Scientist, CSIR Central Food Technological Research Institute, Baylor, 1235 Gange Road, 3rd Cross, Kuvempunagar, MYSORE -570023.

Dr. (Ms.) Anju Chadha Professor - Laboratory of Bioorganic Chemistry, Department of Biotechnology & NCCR, Indian Institute of Technology Madras, CHENNAI - 600 036.

Dr. M K Nagaraj Professor, Department of Applied Mechanics, NITK, Surathkal.

Dr. Udaya Bhat K Associate Professor Department of Metallurgical & Materials NITK, Surathkal.

#### Secretary

Shri K Ravindranath Registrar NITK, Surathkal.

#### FINANCE COMMITTEE

#### Chairman

Prof. K Umamaheshwar Rao Director NITK, Surathkal.

#### **Members**

Dr. Sukhbir Singh Sandhu Additional Secretary (TE), Govt. of India Dept. of Higher Education Ministry of Human Resource Development, Room No. 122 'C', Shastri Bhawan, New Delhi-110 001

Ms. Darshana M. Dabral Joint Secretary and Financial Advisor, Ministry of Human Resource Development Dept. of Higher Education, Technical Education Bureau Room No. 120 'C',

ShastriBhawan, NEW DELHI - 110 001.

Dr. Shanth Averahally Thimmaiah Managing Director M/s. METAMORPHOSIS Group of Companies "PRAKRUTI BHAVAN", #200, 1st & 2nd Floor, 1st Cross, 40th Main, Behind Central Silk Board BTM Layout 2nd Stage, BENGALURU - 560068.

Dr. M K Nagaraj Professor, Department of Applied Mechanics, NITK, Surathkal.

#### **Member Secretary**

Shri K Ravindranath Registrar NITK, Surathkal.

#### **BUILDING AND WORKS COMMITTEE**

#### Chairman

Prof.K Umamaheshwar Rao, Ph.D. Director NITK, Surathkal - 575 025

#### **Members**

Shri. Sanjeev K Sharma Director - NITs, Dept of Higher Education, MHRD, GOI, Shastri Bhavan, New Delhi. Director - Finance Dept. of Higher Education, MHRD, GOI, Shastri Bhavan, New Delhi A U Ravi Shankar, Ph.D Dean (P&D), NITK, Surathkal Mangaluru - 575 025 Prof. G S Dwarakish Dean (P&D), NITK, Surathkal Mangaluru - 575 025 Dr. S V Ravindra **HOD School of Architecture** University Visvesvaraya College of

Jnana Bharathi, Bengaluru - 560 056

Engineering, Bengaluru University,

Ms. D Padmavathi Chief Engineer

Chamundeshwari Electricity Supply Coorporation Limited (CESC Ltd.) Zonal Office, Vijayanagar, 2nd stage Hinkal, Mysuru – 570 017

Shri P K Naidu Project Manager, CPWD NITK-S Project circle, NITK, Campus, Srinivas Nagar, Mangaluru - 575025

### **Member - Secretary**

Ravindranath Registrar NITK, Surathkal, Post Srinivasnagar, Mangalore-575 025

# OTHER COMMITTEES SENATE

#### Chairman

Prof. K. Uma Maheshwar Rao Director NITK, Surathkal – 575 025

#### External Member

N. C. Shivaprakash

Dr. (Ms.) Rama Govindarajan

Dr. (Ms.) Haripriya Gundimeda

#### **Members**

M.B. Saidutta, Ph.D.

T.P. Ashok Babu, Ph.D.

Dwarakish G. S, Ph.D.

Ananthanarayana V. S., Ph.D.

Prasad Krishna, Ph.D.

S.M. Hegde, Ph.D.

A. Mahesha, Ph.D.

Arkal Vittal Hegde, Ph.D.

Kiran G. Shirlal, Ph.D.

Lakshman Nandagiri, Ph.D.

Nagaraj M.K., Ph.D.

Subba Rao, Ph.D.

Hari Mahalingam, Ph.D.

G. Srinikethan, Ph.D.

Gopal Mugeraya, Ph.D. (on

deputation to NIT Goa as

Director)

Denthaje Krishna Bhat, Ph.D.

A. Chitharanjan Hegde, Ph.D.

A. Nityananda Shetty, Ph.D.

A. Vasudeva Adhikari, Ph.D. Badekai Ramachandra Bhat, Ph.D.

Varghese George, Ph.D.

Katta Venkataramana

A.U. Ravi Shankar

K. S. Babu Narayan

K. Swaminathan

M. C. Narasimhan

R. Shivashankar

S. Shrihari

K. N. Lokesh

Sitaram Navak

Subhash C. Yaragal

P. Santhi Thilagam

K. Chandrasekaran

U. Shripathi Acharya

John D'Souza

M. S. Bhat

Muralidhar Kulkarni

Sumam David S.

B. Venkatesa Perumal

K. Panduranga Vittal

Udayakumar R.Y.(on

deputation to MNIT, Jaipur as

Director)

G. Ram Mohana Reddy

B. R. Shankar

Santhosh George

A. Kandasamy

Murulidhar N. N.

Narendranath S.

Appukuttan K. K.

G. C. Mohan Kumar

Gangadharan K. V.

H. Suresh Hebbar

Ravikiran Kadoli

O M 17 11 .

S. M. Kulkarni

Shrikantha S. Rao

Vijay H. Desai

Udaya Bhat K.

A. O. Surendranathan

Jagannath Nayak

K. Narayan Prabhu

K. Rajendra Udupa

V. R. Sastry

Ch. S. N. Murthy

M. Govinda Raj M. N. Satyanarayan H. D. Shashikala Kasturi. V. Bangera N. K. Udayashankar K. B. Kiran Aloysius Henry Sequeira Sri P. G. Mohanan, System Manager, CCC

Librarian i/c

Smt. Anasuya Chakari,

Special invitee

Ms. Marathe Maitreyee Sanjiv

Ms. Supriya S.

Secretary

Shri K. Ravindranath, Registrar

# BOARD OF STUDIES (BOS - UG/PG/RESEARCH)

#### Constitution:

Dean (AA)	Chairman
Dean (Faculty Welfare)	Member
` ,	Member
Dean (Planning &	Member
Development)	
Dean (Students' Welfare)	Member
Dean (Research &	Member
Consultancy)	
Dean (Alumni Affairs &	Member
Institutional Affairs)	
H.O.D. of each	Members
Department/his nominee	
BOG member	Member
representing the faculty	
Three Representatives	Member
from the premier	
Academic Institutions	Member
such as IIT, NIT, IISc.	
IIM, others belonging to	Member
Southern region	
Assistant Registrars	Member
(Academic)	
Registrar	Secretary

#### **QUARTERS ALLOTMENT COMMITTEE**

K N Lokesh, Director i/c, Ph.D. till 20.7.2017 President K Uma Maheshwar Rao, from 21.7.2017 T P Ashok Babu, Ph.D., till Chairman 14.3.2018 A H Sequeira, Ph.D. from 15.3.2018 M K Nagaraj, Ph.D., (BOG Member Member) Uday Bhat, Ph.D, (BOG Member Member) Sri. K Ravindranath, Member Registrar N Gaonkar, Resident Member Engineer i/c till 31.8.2017 Sunil B M, Ph.D.from Member 1.9.2017 Sri. Rammohan Y, Dy. Member Registrar (A/cs) K Narayana Prabhu, Member Professor, Met. & Mat. Engg. Dr. (Mrs) P Santhi Member Thilagam, Associ. Professor, CSE Sri. Monappa Mera, Member Assistant SG-1, A/c II Suresha S N, Faculty In-Member/ charge (Estate Works) Secretary

#### INSTITUTE GRIEVANCE COMMITTEE

A C Hegde, Ph.D. till 29.7.2017 Dwarkish G S, Ph.D. from Chairman 30.7.2017 Sripathi U, Ph.D., Professor, Member Dept. of E&C Engg. Satyanarayana, Ph.D., Asst. Member Professor, Dept. of Physics 1. Sam Johnson P, Ph.D., Member Dept. of MACS Mrs. Yashavanthi, Asst. Member **Executive Engineer** Dept. of Computer Engg. Vijaykumar Ghode., Sr. Member Scintific Officer, Central computer Centre Gangamma S, Ph.D., Asst. Member Professor, Chemical Engg. Mr. Soumen Karmakar, Asst. Member Registrar (Admn.)

## SECURITY COMMITTEE

Dean (Faculty Welfare)
Dean (P&D)
Dean (SW)
Registrar
Chairman, CCC
Prof. i/c Hostels
Resident Engineer
Dy. Registrar (A/cs)
Faculty i/c Estate & works
Faculty i/c Ele.works
Faculty i/c Security
Sri. Manohar Karanth, Security Officer

#### LIBRARY ADVISORY COMMITTEE

Ravikiran Kadoli, Ph.D. till 31.12.2017 N Laxman, Ph.D. from 1.1.2018	Chairman
Mrs. Anasuya C	Secretary
Amba Shetty, Ph.D. Prasanna B D A C Hegde, Ph.D Arun Kumar Thalla, Ph.D. Jeny Rajan, Ph.D	Member Member Member Member Member
Nagendrappa H, Ph.D. P Srihari, Ph.D. Sowmya Kamath, Ph.D.	Member Member
B R Shankar, Ph.D. Anish S, Ph.D. Shashi Bhushan Arya, Ph.D.	Member Member Member
B M Kunar, Ph.D. T K Shajahan, Ph.D. Bijuna C Mohan, Ph.D. Mr. Iranna M Shettar	Member Member Member Member

# SPORTS ADVISIORY COMMITTEE

Director	President
Dean (S. W.)	Chairma
Dean (F.W.)	Member
Registrar	Member
Dy.Registrar(A/cs.)	Member
Hem Prasad Nath, PhD, SAS	Member
officer	
Manoj, PhD.,SAS Officer	Member
Resident Engineer	Member
Faculty In-charge Hostel	Member
Affairs	
N Lakshman, Ph.D	Member
Jagannath Nayak, Ph.D.	Member

DMD 1 '	3.5 1
B M Dodamani,	Member
Ph.D.	
Aruna M, Ph.D.	Member
Sam Johnson,	Member
Kalpana Bhat	Member
Ram Prasad Chowdhury,	Member
Ph.D.	
Raviraj H Mulangi, Ph.D.	Member
Mr Iranna Shetter, Library	Member
Hari Prasad Dasari, Ph.D.	Member
President Students' Council	Member
Girls Representatives	Member
R. C. Convener	Member
All Captains	Member
Asst. Physical Director	Member/
-	Secretary

#### NITK HEALTH CARE COMMITTEE

Dean Faculty Welfare Girls Hostel Warden	Chairman Member
Professor Incharge Hostel	Member
Affairs	
SC/ST Cell Liaison Officer	Member
Faculty Representative	Member
Staff representative	Member
Women Representative (a)	Member
from Faculty (b) from staff	
Deputy Registrar (A/C)	Member
Supdt. Accts III	Member
President Students Council	Member
Girls Representative	Member
Medical Officer	Member

# **COMPLAINTS COMMITTEE**

Jayalekshmi B R, Ph.D. from 15.6.2016	Chairperson
C P Devatha, Ph.D.	Member
Aruna M, Ph.D.	Member
Yogeesh	Member
Parvathi	Member
Anasuya Chakari	Member
Manjula V Prasad	Secretary
Mrs. Merlyn Martis, NGO	Member
Advocate	

# 3 DEPARTMENTS AND SCHOOLS

Applied Mechanics &	(AM)
Hydraulics	
Chemical Engineering	(CH)
Chemistry	(CY)
Civil Engineering	(CV)
Computer Engineering	(CO)
Electrical & Electronics	(E&E)
Engineering	
Electronics &	(E&C)
Communication	
Engineering	
Information Technology	(IT)
Mathematical &	(MA)
Computational Sciences	
Mechanical Engieering	(ME)
Metallurgical & Materials	(MT)
Engineering	
Mining Engineering	(MN)
Physics	(PH)
SCHOOLS	(SM)
School of Management	

## 4 ACADEMIC PROGRAMMES

#### 4.1 PROGRAMMES OFFERED

# I. B.TECH. (Undergraduate Programme) – Eight semesters

1	Chemical Engineering
2	Civil Engineering
3	Computer Engineering
4	Electrical And Electronics
	Engineering
	Electronics & Communication
5	Engineering
6	Mechanical Engineering
7	Metallurgical & Materials
	Engineering
8	Mining Engineering
9	Information Technology

# II .M.Tech. (Post Graduate Programme) – Four Semesters

- 1 Structural Engg.
- 2 Geotechnical Engg.
- 3 Environmental Engg.
- 4 Transportation Engg.
- 5 Construction Technology And Management
- 6 Marine Structures
- 7 Water Resources Engineering And Management
- 8 Remote Sensing And Geographic Information Systems
- 9 Manufacturing Engg
- 10 Mechatronics Engg
- 11 Thermal Engg
- 12 Design And Precision Engg
- 13 Power & Energy Systems
- 14 VLSI Design
- 15 Communication Engg
- 16 Chemical Plant Design
- 17 Industrial Pollution Control Engg.
- 18 Industrial Biotechnolgy
- 19 Computational Mathematics
- 20 Materials Engg
- 21 Process Metallurgy
- 22 Nanotechnology
- 23 Computer Science & Engg
- 24 Computer Science & Engg-Information Security
- 25 Information Technology

**III** M.Tech. by Research: In all the above M.TechProgramme and in the Department of Mining - M.Tech Research

Programme in Rock Excavation Technolgy And Management

# IV. M.C.A. (Master of Computer Applications) - Six semesters

# V. M.B.A. (Master of Business Administration) - Four semesters

# VI. M.Sc. in Chemistry – (Four semesters)

VII. M.Sc. in Physics - (Four semesters)

### VIII. Ph. D. Programme:

Ph.D. Programmes are offered in 14 Departments in various course and interdisciplinary specializations.

#### 4.2 ACADEMIC CALENDAR

Acade	Program	Admission	Admission
mic	mes	Commenc	closed on
Year		ed on	
2017-18	B.Tech.	20.7.2017	7.8.2017
2017-18	M.Tech.	26.6.2017	31.7.2017
2017-18	M.Tech.	6.7.2017	13.7.2017
	by		
	Research		
2017-18	MCA	17.7.2017	31.7.2017
2017-18	M.B.A.	21.4.2017	15.5.2017
2017-18	M.Sc.	27.6.2017	3.7.2017
	(Physics &		
	Chemistry)		
2017-18	Ph.D.	11.7.2017	15.7.2017
(July			
Session)			

### 5 ADMISSION POLICIES

#### **5.1 ADMISSION PROCEDURE**

#### B. Tech .:-

Government The of India. Department of MHRD issued a uniform admission procedure for all the NITs in the country. Candidates seeking admission to are required to appear for the JEE NIT (Main) conducted by CBSE New Delhi. Seats are filled up as per the merit list prepared on the basis of JEE (Main) Examination and qualifying examination scores. According to All India rank prepared by CBSE New Delhi by giving 40% weightage to class XII and 60% to the performance in JEE (Main). seats will be allotted in the centralized online campus counseling through Central Seat Allocation Board (CSAB). The seat allocation done on the basis of 50% State Ouota (HS) and 50% Other State Quota (OS). These seats are filled on All India ranking Merit Basis (JEE Main). Seats are reserved for candidates belonging to Scheduled Caste, Scheduled Tribes, and Persons with Disabilities (PWD) & Other Backward Classes as per the guidelines issued by the MHRD. In addition to this, 15% over and above the intake is available under the Direct Admission of Students Abroad (DASA) Scheme, and a few seats are reserved for the candidates nominated by the Ministry of External Affairs.

#### M. Tech -GATE/Scholarship seats:-

On the basis of GATE Score, admissions for scholarship category (GATE) were made in the centralized on-line common Admission Process through Centralized Counseling for M.Tech. (CCMT) coordinated by NITK, Surathkal.

After CCMT allotment of seats, the vacant and unfilled seats were filled in Spot admission on 6.8.2017 at NITK, Surathkal for the GATE candidates on merit basis.

# M. Tech. (Sponsored Seats/Research):-

Selection of candidates for admission were made on GATE score or in some of the programmes, selection will be based on at least 70% weightage to GATE score and the remaining 30% weightage to academic performance in qualifying examination or /and written aptitude test or/ and interview

etc as decided by the DPGC of the concerned Department offering that programme.

#### M.C.A.:-

Selection of candidates for admissions was made on the basis of NIMCET. Admissions were made through a centralized counseling.

#### M.B.A:-

Selection was based on CAT score and performance in the qualifying exam and Interview.

### M.Sc (Chemistry & Physics):

Selection was based upon the academic performance in the qualifying degree programme and written aptitude test conducted by the institute.

#### Ph.D. Programme:

Selection of candidates for admission to Ph.D. Programme was based upon the academic performance in the qualifying examinations, written aptitude test and interviews conducted by the respective departments.

All the students are required to stay in the Institute Hostels, unless permitted to reside outside under special circumstances. Students have to strictly adhere to the rules and regulations of the institute.

### 6 ADMISSIONS FOR 2017-18

# 6.1 The number of candidates admitted are as follows:

# I. B. Tech.

1	Admission through JEE	733
2	G.O.I. Nominee- through	
	Ministry of External Affairs	

3 DASA Scheme 101

Total 834

# II. M. Tech./M. Tech. (By Research)i) M. Tech Programme

The number of candidates admitted to First Year M.Tech. Programmes are:

1	With GATE qualifications for	465
	scholarship seats	465
2	Sponsored candidates	01
3	Admission under DASA	01
4	QIP candidates	04
5	L&T Sponsored Candidates	30
6	NAVY sponsored	01
7	ICCR Sponsored	04
T	otal	<i>506</i>
11 T	look (Dr. Dooonale)	

# M.Tech. (By Research)

		Total		39
2	Non Sch	olarship		23
	Scholars	hip		
1	GATE	qualified	with	16

#### III MCA.:

Selection of candidates for admission to MCA, were made on the basis of rank obtained in NIT MCA Common Entrance Test (NIMCET). Admissions were made through a Centralized counseling conducted by N.I.T. Durgapur. A Total 87 candidates admitted were as follows:-

13
07
01 <b>87</b>

Selection of candidates were made on the basis of CAT 2017 among candidates applied to NITK, Surathkal, Group Discussion and interview. A total 34 candidates were admitted as follows:-

Total	34
ST	01
SC	01
OBC	02
OP	30

## V. M.Sc (Chemistry & Physics)

Selection were made on the basis of academic performance in the qualifying exam and written aptitude test conducted at NITK Surathkal. Following are the admission details:

#### i. M.Sc (Chemistry)

OP	12
OBC	07
SC	04
ST	02
SPON & PWD	02
Total	27

## ii M.Sc (Physics)

Total	24
ST	01
SC	03
OBC	07
OP	13

### VI. Ph.D. Programme:

Total	124
VIS	03
QIP	08
ST	06
SC	12
OBC	24
OP	71

### External Registrants (Part Time) 38

A total number of 834 candidates have been admitted to the First Year B.Tech. Programmes according to the guidelines, instructions issued by the MHRD.

The PG & Ph.D. admissions have been made according to the Rules and Regulations issued by the Senate of the Institute.

	B.Tech. Students Strength for the year 2017-18.																	
B.Tech I Year		;	ST				OBC			DAS	A	GE	NER	AL	TOTAL			
B. lech l lear	M	F	То	M	F	То	M	F	То	M	F	То	M	F	То	M	F	То
Civil Engg	11	3	14	5	1	6	22	1	23	6	5	11	39	7	46	83	17	100
Mechanical Engg.	18	0	18	10	1	11	35	1	36	21	3	24	66	3	69	150	8	158
Electrical & Electronics Engg.	13	0	13	5	1	6	24	2	26	8	3	11	38	7	45	88	13	101
Electronics & Communication Engg.	12	2	14	7	0	7	22	2	24	13	4	17	36	9	45	90	17	107
Chemical Engg.	4	2	6	3	1	4	10	2	12	6	3	9	17	6	23	40	14	54
Metallurgical & Materials Engg.	7	0	7	4	0	4	12	0	12	0	0	0	18	3	21	41	3	44
Mining Engg.	5	0	5	4	0	4	10	2	12	0	0	0	20	1	21	39	3	42
Computer Engg.	13	1	14	7	0	7	22	3	25	11	5	16	44	2	46	97	11	108
Information Technology	13	1	14	4	2	6	22	5	27	10	2	12	40	5	45	89	15	104
Total	96	9	105	49	6	55	179	18	197	75	25	100	318	43	361	717	101	818

B.Tech II Year		ST			ОВС				]	MEA	1	GENE	ERAL		TOTAL						
1001	M	F	То	M	F	To	M	F	То	M	F	То	M	F	T	M	F	То	M	F	То
Civil Engg	10	3	13	7	0	7	18	2	20	11	4	15	1	0	1	22	11	33	69	20	89
Mechanical Engg.	20	0	20	11	0	11	33	2	35	20	0	20	2	0	2	52	4	56	138	6	144
Electrical & Electronics Engg.	10	4	14	4	0	4	15	10	25	11	3	14	4	0	4	30	17	47	74	34	108
Electronics & Communication Engg.	11	3	14	7	0	7	24	1	25	14	4	18	0	1	1	35	12	47	91	21	112
Chemical Engg.	5	1	6	3	1	4	9	1	10	7	2	9	0	0	0	7	9	16	31	14	45
Metallurgical & Materials Engg.	5	1	6	1	3	4	8	2	10	0	0	0	0	0	0	10	7	17	24	13	37
Mining Engg.	6	0	6	3	1	4	7	0	7	0	0	0	0	0	0	13	1	14	29	2	31

# National Institute of Technology Karnataka, Surathkal

Computer Engg.	11	3	14	6	1	7	18	6	24	13	3	16	0	2	2	34	12	46	82	27	109
Information Technology	10	3	13	1	3	4	18	8	26	9	3	12	0	0	0	39	7	46	77	24	101
Total	88	18	106	43	9	52	150	32	182	85	19	104	7	3	10	242	80	322	615	161	776

B.Tech III Year	sc			ST			ОВС			DASA			MEA	1	ICCR			GENE	ERAL		TOTAL			
	M	F	То	M	F	T	M	F	То	M	F	То	M	F	T	M	F	To	M	F	To	M	F	To
Civil Engg	14	0	14	5	1	6	21	3	24	8	5	13	0	0	0	0	0	0	29	10	39	77	19	96
Mechanical Engg.	19	0	19	9	2	11	36	1	37	22	1	23	1	0	1	0	0	0	70	0	70	157	4	161
Electrical & Electronics Engg.	10	2	12	6	0	6	18	5	23	13	1	14	0	1	1	0	1	1	34	13	47	81	23	104
Electronics & Communication Engg.	11	2	13	2	3	5	19	5	24	13	2	15	1	0	1	0	0	0	34	13	47	80	25	105
Chemical Engg.	4	1	5	4	0	4	11	1	12	7	1	8	0	0	0	0	0	0	9	11	20	35	14	49
Metallurgical & Materials Engg.	3	3	6	3	1	4	11	0	11	0	0	0	0	0	0	0	0	0	9	7	16	26	11	37
Mining Engg.	5	1	6	2	1	3	10	0	10	0	0	0	0	0	0	0	0	0	17	1	18	34	3	37
Computer Engg.	10	4	14	5	1	6	20	5	25	12	3	15	1	0	1	0	0	0	38	8	46	86	21	107
Information Technology	9	5	14	3	3	6	13	13	26	9	2	11	0	0	0	0	0	0	33	13	46	67	36	103
Total	85	18	103	39	12	51	159	33	192	84	15	99	3	1	4	0	1	1	273	76	349	643	156	799

B.Tech IV Year		sc			ST		OE	BC			DAS	A	]	MEA	<b>\</b>	GE	NER/	AL	Т	OTAL	
	M	F	То	M	F	To	M	F	То	M	F	То	M	F	To	M	F	То	M	F	То
Civil Engg																					10
	13	1	14	5	2	7	18	5	23	7	6	13	1	0	1	37	9	46	81	23	4
Mechanical Engg.	19	0	19	10	0	10	38	0	38	21	1	22	0	0	0	67	3	70	155	4	15
Electrical &																					10
Electronics Engg.	10	4	14	5	0	5	20	6	26	9	4	13	1	1	2	33	14	47	78	29	7
Electronics &																					
Communication																					11
Engg.	9	5	14	4	3	7	21	4	25	12	5	17	1	0	1	35	12	47	82	29	1
Chemical Engg.	5	2	7	4	0	4	6	6	12	5	4	9	0	0	0	16	6	22	36	18	54
Metallurgical &																					
Materials Engg.	4	3	7	2	2	4	9	2	11	0	0	0	0	0	0	9	7	16	24	14	38
Mining Engg.	6	0	6	5	0	5	10	1	11	1	0	1	0	0	0	16	0	16	38	1	39
Computer Engg.	8	7	15	7	0	7	21	4	25	11	4	15	1	0	1	28	18	46	76	33	10 9
Information																					10
Technology	8	5	13	3	2	5	13	13	26	6	5	11	0	0	0	25	21	46	55	46	1
Total	82	27	109	45	9	54	156	41	197	72	29	101	4	1	5	266	90	356	625	197	822

	M.Tech. Students Strength for the year 2017-18  M.Tech. Students Strength for the year 2017-18  OBC QIP DASA ICCR Sponsored GENERAL TOTAL																										
M.Tech (I		SC			ST			OBC	2		QII	P	D	AS	A	I	CC	R	Spe	onso	red	GE	NEI	RAL	Т	'OTA	Ĺ
Year)	M	F	T o	M	F	T o	M	F	То	M	F	T o	M	F	Т	M	F	Т	M	F	То	M	F	То	M	F	То
Structural Engg.	2	2	4	2	0	2	3	4	7	1	0	1	0	0	0	1	0	1	0	0	0	9	4	13	18	10	28
Geotechnical Engg.	0	2	2	0	1	1	2	2	4	0	0	0	0	0	0	0	0	0	0	0	0	4	3	7	6	8	14
Environmenta 1 Engg.	2	2	4	0	0	0	3	3	6	0	0	0	0	0	0	0	0	0	0	0	0	6	7	13	11	12	23
Transportatio n Systems Engg.	3	0	3	2	0	2	4	2	6	1	0	1	0	0	0	0	0	0	0	0	0	8	5	13	18	7	25
Construction Technology & Mgt.	4	0	4	1	0	1	6	1	7	0	0	0	0	0	0	2	0	2	27	2	29	11	2	13	51	5	56
Marine Structures	3	0	3	2	0	2	6	1	7	0	0	0	0	0	0	0	0	0	0	0	0	7	4	11	18	5	23
Water Resources Engg. & Management	2	0	2	0	0	0	3	1	4	0	0	0	0	0	0	0	0	0	0	0	0	2	4	6	7	5	12
Remote Sensing & GIS	1	1	2	0	0	0	4	3	7	0	0	0	0	0	0	0	0	0	0	0	0	6	6	12	11	10	21
Thermal Engg.	1	1	2	1	0	1	4	0	4	0	1	1	0	0	0	0	0	0	0	0	0	6	0	6	12	2	14
Mechatronics Engg.	1	1	2	2	0	2	5	0	5	0	0	0	0	0	0	1	0	1	0	0	0	8	1	9	17	2	19
Manufacturin g Engg.	2	0	2	1	0	1	4	0	4	0	0	0	0	0	0	0	0	0	0	0	0	7	0	7	14	0	14
Design and Precision Engg.	2	0	2	1	0	1	4	0	4	0	0	0	0	0	0	0	0	0	0	0	0	5	1	6	12	1	13

Engg Computer	•		•					1																	10	,	20
Computer Science &	4	0	4	1	0	1	5	1	6	0	0	0	0	0	0	0	0	0	1	0	1	7	6	13	18	7	25
Nanotechnolo	1	0	2	1	0	1	6	2	6	0	0	$\frac{1}{0}$	0	0	0	0	0	0	0	0	0	12	0	13	24	3	25 7
Process Metallurgy Materials	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	4	0	4
Industrial Biotechnology	1	0	1	0	0	0	1	2	3	0	0	0	0	0	0	0	0	0	0	0	0	6	5	11	8	7	15
Industrial Pollution Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	2	5	3	2	5
Chemical Plant Design	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2	2	4	4	2	6
Communicati on Engg.	2	0	2	1	0	1	5	1	6	0	0	0	0	0	0	0	0	0	0	0	0	8	4	12	16	5	21
Systems VLSI Design	3	0	3	2	0	2	5	2	5 7	0	0	0	0	1	1	0	0	0	0	0	0	9	2	11	19	5	19 24
Power & Energy	2	0	2	1	0	1	5	0	5	0	0	0	0	0	0	0	0	0	0	0	0	11	0	11	19	0	1

					N	I.Te	ch. S	Stud	ents S	Stre	ngt	h fo	r th	e y	ear	201	7-1	8						
M.Tech (II		sc			ST			ОВ	C		QII	P	D	AS	A	Spo	nso	ore	GE	NER	RAL	7	ATO1	L
Year)	M	F	T o	M	F	T o	M	F	То	М	F	T o	M	F	T	M	F	T o	M	F	То	M	F	То
Structural Engg.	2	0	2	2	0	2	3	3	6	1	0	1	0	0	0	0	0	0	9	3	12	17	6	23
Geotechnical Engg.	1	1	2	1	0	1	1	5	6	0	0	0	0	0	0	0	0	0	2	3	5	5	9	14
Environmental Engg.	3	1	4	1	1	2	3	2	5	0	0	0	0	0	0	0	0	0	10	3	13	17	7	24
Transportatio n Systems Engg.	3	0	3	0	0	0	3	2	5	0	1	1	0	0	0	1	0	1	5	5	10	12	8	20
Construction Technology & Mgt.	4	0	4	0	0	0	7	0	7	0	1	1	0	0	0	25	3	28	6	5	11	42	9	51
Marine Structures	1	1	2	0	0	0	1 1	0	11	0	0	0	0	0	0	0	0	0	6	2	8	18	3	21
Water Resources Engg. & Management	0	0	0	0	1	1	1	3	4	0	0	0	0	0	0	0	0	0	2	3	5	3	7	10
Remote Sensing & GIS	2	0	2	1	0	1	2	4	6	0	0	0	0	0	0	0	0	0	7	1	8	12	5	17
Thermal Engg.	1	0	1	1	0	1	6	0	6	0	0	0	0	0	0	0	0	0	2	1	3	10	1	11
Mechatronics Engg.	3	1	4	0	0	0	4	1	5	0	0	0	0	0	0	1	0	1	11	3	14	19	5	24
Manufacturin g Engg.	2	0	2	1	0	1	4	0	4	1	1	2	0	0	0	0	0	0	7	0	7	15	1	16
Design and Precision Engg.	2	0	2	1	0	1	4	0	4	1	0	1	0	0	0	0	0	0	7	0	7	15	0	15

Power &																								
Energy	4	0	4	0	1	1	4	3	7	0	0	0	0	0	0	0	0	0	8	1	9	16	5	21
Systems																								
VLSI Design	2	2	4	2	0	2	8	2	10	0	0	0	0	0	0	0	0	0	7	2	9	19	6	25
Communication Engg.	3	1	4	0	0	0	6	1	7	0	0	0	1	0	1	1	0	1	5	4	9	16	6	22
Chemical Plant Design	1	0	1	1	0	1	1	0	1	0	0	0	0	0	0	0	0	0	1	1	2	4	1	5
Industrial Pollution Control	2	0	2	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	3	3	6	6	3	9
Industrial Biotechnology	0	2	2	1	1	2	1	7	8	0	0	0	0	0	0	0	0	0	5	6	11	7	16	23
Process Metallurgy	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	4	5	0	5
Materials Engg.	4	0	4	0	0	0	7	0	7	0	0	0	0	0	0	0	0	0	9	1	10	20	1	21
Nanotechnology	0	0	0	0	0	0	2	2	4	0	0	0	0	0	0	0	0	0	1	0	1	3	2	5
Computer Science & Engg	3	0	3	1	0	1	4	1	5	0	0	0	0	0	0	1	0	1	6	5	11	15	6	21
Computer Science & Engg - Information Security	3	1	4	1	1	2	7	1	8	0	0	0	0	0	0	0	0	0	3	5	8	14	8	22
Computational Mathamatics	1	0	1	1	0	1	2	2	4	0	0	0	0	0	0	0	1	1	4	4	8	8	7	15
Information Technology	3	0	3	1	0	1	6	0	6	0	0	0	0	0	0	0	0	0	3	2	5	13	2	15
TOTAL	51	10	61	16	5	21	98	39	137	3	3	6	1	0	1	29	4	33	133	63	196	331	124	455

M.Tech Research Students Strength		sc			ST			ОВ	С	GE	NER	AL	Т	`ОТА	L
for the year 2017 -18	М	F	То	M	F	То	M	F	То	M	F	То	M	F	То
Marine Structure	0	0	0	0	0	0	0	1	1	0	1	1	0	2	2
Remote Sensing & GIS	0	0	0	0	0	0	0	0	0	2	2	4	2	2	4
Water Resources Engg. & Management	0	0	0	0	0	0	0	0	0	1	3	4	1	3	4
Structural Engg.	0	0	0	0	0	0	0	0	0	1	2	3	1	2	3
Geo-Technical Engg.	1	0	1	0	0	0	0	0	0	0	0	0	1	0	1
Environmental Engg.	0	0	0	0	0	0	0	0	0	0	3	3	0	3	3
Transportation Engg	0	0	0	0	0	0	0	0	0	1	0	1	1	0	1
Thermal Engg.	0	0	0	0	0	0	2	0	2	6	0	6	8	0	8
Mechatronics Engg.	1	0	1	0	0	0	1	0	1	1	2	3	3	2	5
Manufacturing Engg.	1	0	1	0	0	0	0	0	0	5	0	5	6	0	6
Design and Precision Engg.	0	0	0	0	0	0	0	0	0	4	1	5	4	1	5
Power & Energy Systems	0	0	0	0	0	0	0	0	0	0	2	2	0	2	2
VLSI Design	0	0	0	0	0	0	0	0	0	4	2	6	4	2	6
Materials Engg.	0	0	0	0	0	0	0	0	0	1	0	1	1	0	1
Nanotechnology	0	0	0	0	0	0	0	0	0	0	1	1	0	1	1
Industrial Pollution Control	0	0	0	0	0	0	0	0	0	0	1	1	0	1	1
Chemical Plant Design	0	0	0	0	0	0	0	0	0	2	0	2	2	0	2
Computer Science & Engg	0	0	0	0	0	0	0	0	0	1	0	1	1	0	1
Computer Science & Engg Information Security	0	0	0	0	0	0	0	1	1	0	1	1	0	2	2
Rock Excavation Technology & Mgt	0	0	0	0	0	0	0	0	0	1	0	1	1	0	1
		1													

			MCA	Stu	len	ts Stı	rengt	h for	the y	year 2	2017-	18			
W		sc			ST			ОВС		Gl	ENER	AL	1	'OTA	<b>L</b>
Year M F To															То
I YEAR	10	3	13	6	1	7	15	5	20	30	14	44	61	23	84
II Year	12	2	14	5	2	7	21	4	25	31	16	47	69	24	93
III YEAR	8	3	11	7	0	7	21	3	24	28	17	45	64	23	87
TOTAL	30	8	38	18	3	21	57	12	69	88	47	135	193	70	263

			MBA	Stu	den	ts Stı	rengt	h for	the y	ear 2	2017-	18			
Voor	Year SC ST OBC GENERAL TOTAL														
rear	M	F	То	M	F	То	M	F	То	M	F	То	M	F	То
I YEAR	2	0	2	0	1	1	2	3	5	16	9	25	20	13	33
II YEAR	2	5	7	1	0	1	6	1	7	21	9	30	30	15	45
TOTAL	4	5	9	1	1	2	8	4	12	37	18	55	50	28	78

	M	.Sc(	Chen	nistr	y) S	tude	nts S	treng	th fo	r the	year	2017	-18		
VEAD	YEAR SC ST OBC GENERAL TOTAL  M F TO														
ILAK	M	F	То	M	F	То	M	F	То	M	F	То	M	F	То
I YEAR	4	0	4	1	0	1	2	5	7	5	9	14	12	14	26
II YEAR	2	2	4	2	0	2	2	5	7	4	8	12	10	15	25
TOTAL	6	2	8	3	0	3	4	10	14	9	17	26	10	15	25

	I	M.S	c(Phy	sics)	Stı	ıdent	s Str	engtl	h for	the y	ear 2	017-1	.8		
VEAD	YEAR SC ST OBC GENERAL TOTAL														
ILAK	M	F	То	M	F	То	M	F	То	M	F	То	M	F	То
I YEAR	2	1	3	0	1	1	0	7	7	7	6	13	9	15	24
II YEAR	4	0	4	0	1	1	1	6	7	4	9	13	9	16	25
TOTAL	6	1	7	0	2	2	1	13	14	11	15	26	18	31	49

	Ph.D. Students Strength for the year 2017-18																										
Branch		sc			ST			ОВС			QIP	•	<b>T</b> ]	EQI	P		VT( he		Spe	onso	red	G	ENER	AL	,	ГОТА	L
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
Civil	8	2	10	2	1	3	7	9	16	0	1	1	0	0	0	0	0	0	3	1	4	27	24	51	47	38	85
App. Mechanics	5	1	6	1	0	1	10	3	13	0	0	0	0	0	0	0	0	0	7	0	7	28	11	39	51	15	66
Mechanical	16	0	16	8	0	8	34	2	36	6	0	6	1	0	1	0	0	0	5	0	5	76	6	82	146	8	154
E&E	7	0	7	1	0	1	10	4	14	1	1	2	0	0	0	0	0	0	1	1	2	35	5	40	55	11	66
E&C	1	0	1	3	0	3	7	0	7	4	0	4	1	0	1	1	1	2	1	0	1	31	11	42	49	12	61
Chemical	3	2	5	1	1	2	2	6	8	0	0	0	0	0	0	0	0	0	0	0	0	10	18	28	16	27	43
Metallurgy	5	0	5	2	0	2	10	2	12	1	0	1	0	0	0	0	0	0	1	0	1	21	2	23	40	4	44
Mining	4	0	4	0	0	0	5	0	5	0	0	0	0	0	0	0	0	0	3	0	3	12	1	13	24	1	25
Computer	4	1	5	1	0	1	3	1	4	2	1	3	0	0	0	7	2	9	2	2	4	13	6	19	32	13	45
Information Technology	1	0	1	1	0	1	2	1	3	0	0	0	0	0	0	2	2	4	0	0	0	10	0	10	16	3	19
Physics	1	1	2	0	0	0	9	1	10	0	0	0	0	0	0	0	0	0	0	0	0	20	14	34	30	16	46
Chemistry	2	1	3	1	0	1	6	5	11	0	0	0	0	0	0	0	0	0	2	3	5	11	7	18	22	16	38
MACS	2	1	3	1	0	1	2	3	5	0	0	0	0	0	0	1	0	1	3	0	3	12	12	24	21	16	37
School of Mgt.	4	3	7	0	0	0	8	2	10	0	0	0	0	0	0	0	0	0	2	3	5	11	13	24	25	21	46
Total	63	12	75	22	2	24	115	39	154	14	3	17	2	0	2	11	5	16	30	10	40	317	130	447	574	201	775

# <u>6.3 ADMISSION STATISTICS</u> <u>Undergraduate Programmes – B. Tech.</u> Particulars of sanctioned intake and admissions made during 2017-18

				Adn	nission	Statis	stics						
				Undergradu	ate Pro	gram	mes-B	.Tech.					
		1	Sanctio	oned intake		Un			made to Programm	ıes	Nominees	DASA	
S1.			ī,	DASA			No	ormal I	ntake		mir	(Direct Admission	Total
No.	Courses offered	Normal Intake	G.O.I Nominees	(Direct Admission of Students Abroad)	Total	sc	ST	ОВС	PWD	OP	G.O.I No:	of Students Abroad)	Admissio ns
1	Civil engineering	92	3	16	111	14	07	22	1 OBC 3 OP	44		11	102
2	Mechanical Engineering	139	3	22	164	20	10	38	2 OP 1 ST	67		24	162
3	Electrical & Electronics Engineering	93	4	14	111	14	06	26	2 OP	43		12	103
4	Electronics & Communication Engineering	93	3	16	112	14	07	24	1 OBC	47		17	110
5	Chemical Engineering	46	2	8	56	7	04	12		23	1	09	55
6	Metallurgical & Materials Engineering	46	0	3	49	7	04	12		22			45
7	Mining Engineering	46	0	3	49	6	04	12		22			44
8	Computer Engineering	92	2	16	110	14	07	23	2 OBC 2 OP	44		16	108
9	Information Technology	93	0	13	106	14	06	26	1 OBC 2 OP	44		12	105
	Total	740	17	111	868	110	55	195	17	356		101	834

# ADMISSION STATISTICS - B.TECH. 2017-18

# Details of Male & Female admissions - coursewise and categorywise

S1. No.	Programme		ОР	ОВС	<b>;</b>	so	c	ST		_	OI ninee	(Dii Adm n	SA rect issio of lents oad)		Tota	1
		M	F	M	F	M	F	M	F	M	F	M	F	M	F	Total
1	Civil Engg	37+3P H	7	21+1PH	1	11	3	6	1			6	5	85	17	102
2	Mechanical Engg	64+2P H	3	37	1	20	0	9+1PH	1			21	3	154	8	162
3	Electrical & Electronics Engg	38	5+2PH	24	2	14		5	1			9	3	90	13	103
4	Electronics & Communications	38	9	22+1PH	2	12	2	7	0			13	4	93	17	110
5	Chemical Engg	17	6	10	2	5	2	3	1			6	3	41	14	55
6	Metallurgical & Materials Engg	19	3	12		7		4						42	3	45
7	Mining Engg	21	1	10	2	6		4						41	3	44
8	Computer Engg	42+2P H	2	20+2PH	3	13	1	7	1		-	11	5	97	11	108
9	Information Technology	39+2P H	5	21+1PH	5	13	1	4	2			10	2	90	15	105
	Total	315+ 9PH	41+2PH	177+5PH	18	101	9	49+ 1PH	6			76	25	733	101	834

# ADMISSION STATISTICS - POST GRADUATE PROGRAMMES M. Tech. Programme - Particulars of Intake and Admissions during 2017-18

S1.	Name of the Programmes		Adn	nitted				Out	of t	he to	tal adı	miss	ions	-No.	of c	andi	idates a	dmitte	ed ur	ıder o	eate	gory
			GATE (Schol arship seats)	Other	То	tal			SC		ST	<b>1</b>			ОВС	;	O	С		PW	D	
			Souts,		M	F	ТО	M	F	то	M	F	то	M	F	то	M	F	то	M	F	то
1	Structural Engg.	27+1*	25	1 Spon 1 ICCR 1 QIP (P)	18	10	28	2	2	4	2	0	2	3	4	7	8+1 ICCR+ 1 QIP (P)+1 Spon	4	15	-	-	_
2	Geotechnica l Engg.	15+1**+ 1*	14		6	8	14	0	2	2	0	1	1	2	2	4	4	3	7	-	-	-
3	Environmen tal Engg.	27+1*	25		12	13	25	2	2	4	1	0	1	2	4	6	6	7	13	1 (OBC )	0	1
4	Transportati on Engg.	27+1*	25	1 QIP (P)	19	7	26	3		3	2	0	2	5	2	7	8+1 QIP (P)	5	14		-	-
5	Construction Technology & Management	30	25	2 ICCR 30 L&T	52	5	57	4	0	4	1	0	1	6	1	7	11+2 ICCR+ 28L&T	2+ 2 L&T	45			
6	Marine Structures	27+1**+ 1*	24		19	5	24	3	0	3	2	0	2	6	1	7	8	4	12			
7	Water Resources Engineering & Managemen t	15+1*	13	-	7	6	13	2	0	2				3	1	4	2	5	7			
8	Remote Sensing & Geographic	27+1**+ 1*	23		13	10	23	2	1	3				4	3	7	7	6	13			

	Information Systems																					
9	Design and Precision Engg.	15+1*	14		13	1	14	2	0	2	1	0	1	3	0	3	7	1	8			
10	Manufacturi ng Engg.	15+1*	14		14	0	14	2	0	2	1	0	1	4	0	4	7	0	7			
11	Mechatronic s Engg.		21	1 ICCR	20	2	22	2	1	3	2	0	2	5	0	5	10+1 ICCR	1	12			
12	Thermal Engineering	15+1**+	14	1 QIP	13	2	15	1	1+1 QIP	ഗ	1	0	1	4	0	4	7	0	7		-	1
13	Power & Energy Systems	27+1*	25		25	0	25	4	0	4	2	0	2	6	0	6	13	0	13			
14	VLSI Design	27+1**+ 1*	25	1 DASA (F)	20	6	26	3	0	3	2	0	2	5	2	7	10	2+1D ASA	14			
15	Communica tion Engg.	1*	23		18	5	23	3	0	3	2	0	2	5	1	6	7	4	11	1(OC )	0	1
16	Chemical Plant Design		6	-	4	2	6		1	1		!	1	2	0	2	2	2	4		-	-
17	Industrial Pollution Control Engg.	27+1*	5	-	3	2	5		1	1			1	1	1		3	2	5		-	
18	Industrial Biotechnolo gy	27+1*	16		9	7	16	1	0	1		1	1	1	2	3	7	5	12			
19	Materials Engg.	27+1*	24	1 QIP (P)	24	1	25	4	0	4	1	0	1	6	0	6	12+1( QIP(P)	1	14			
20	Process Metallurgy	15+1**+ 1*	4		4	0	4							1	0	1	3	0	3			
21	Nanotechnol ogy	15+1*	8		5	3	8	1	1	2	1	0	1	0	2	2	3	0	3			

22	Computer Science & Engg.	27+1**+	25	1 NAVY	19	7	26	4	0	4	1	0	1	5	1	6	7+1 NAVY SPON	6	14	1(OC )	0	1
23	Computer Science & Engg. – Information Security	27+1*	25		18	7	25	3	1	4	1	1	2	5	2	7	9	3	12			
24	Information Technology	27+1*	24		16	8	24	3	1	4	2	0	2	3	4	7	8	3	11			
25	Computatio nal Mathematic s	27+1*	18		13	5	18	0	1	1		-		4	0	4	9	4	13			
	Total		465	1Spon 4 ICCR 1 NAVY 1 DASA 4 QIP 30 L&T	384	122	506	51	13+ 1 QIP	65	25	2	27	90	32		178+4 ICCR+ 3 QIP+2 8 L&T + 1 NAVY Spon + 1 Spon	L&T+ 1		3	-	3

# M.TECH. PROGRAMME (BY RESEARCH) 2017-18

#### Intake

ос	OCPWD	OBC	OBCPWD	sc	SCPWD	ST	STPWD	Total
24	01	13	01	07	01	3	0	50

Admission made for the year 2017-18

S1.			lates admitted	_	otal numbe lidates adr	-
No.	Name of the Programme	Gate Scholarship Seat	Non- Scholarship Seat	Male	Female	Total
	DEPART	MENT OF CIVIL	ENGINEERING			
1	Structural Engg.	01(OC)			01	01
2	Transportation Engg.	01(OC)		01		01
3	Environmental Engg.		01 (OC)		01	01
	DEPARTMENT OF MET	ALLURGICAL AN	D MATERIALS EN	GINEER	ING	
1	Nanotechnology		01 (OC)		01	01
2	Materials Engg.		01 (OC	01		01
	DEPARTMENT OF ELECT	RONICS AND CO	MMUNICATION E	NGINEE	RING	
1	VLSI Design	02(OC)			02	02
		` '	CAL ENGINEERING	<del>}</del>		
1	Design and Precision Engg.	03(OC)	01(OC)	03	01	04
2	Mechatronics Engineering	01(OC)	03 (1 SC, 1 OBC, 1 OC)	03	01	04
3	Manufacturing Engineering	01(OC)	02(OC)	03		03
4	Thermal Engg.	4 OC	01 (OC), 1 (OBC IR)	06		06
	DEPARTM	MENT OF MINING	ENGINEERING			
1	Rock Excavation Technology and Management		01 (OC)	01		01
	DEPARTMENT OF	APPLIED MECHA	NICS AND HYDRA	ULICS		
1	Remote Sensing & Geographic's Information Systems		2 (OC), 1 OC (IR)	02	01	03
2	Marine Structures		01 (OC), 1 OBC (IR)		02	02
3	Water Resources Engineering & Mgt.		03 (OC)	01	02	03
		ENT OF CHEMICA	L ENGINEERING		•	
1	Chemical Plant Design		2 (OC)	02		02
2	Industrial Pollution Control		1 (OBC)		01	01
	DEPARTMENT OF ELE	CTRICAL AND E	LECTRONICS ENG	INEERI	NG	l
1	Power and Energy Systems	01 (OC)			01	01
	DEPARTMENT OF	COMPUTER SCIE	NCE AND ENGINE	ERING		
1	Computer Science & Engg.	1 (OC)		1		1
2	Computer Science & Engg. (Information Security)	1 (OC)		1		1

National Institute of Technology Karnataka, Surathkal

Total	16 (OC)	23 {(17 OC), 02 (OBC), 2 (OBC IR), 1 (SC), 1 OC (IR)}	25	14	39
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IR – Internal Registrants

# M.C.A., M.B.A. AND M.Sc. PROGRAMMES

# Particulars of Admissions during 2017-18

						SC		S	Т	OE	ВС	G	en	PW	7	Sp so	re
S1. No.	Program me	Intake	M	F	Total	M	F	M	F	M	F	M	F	M	F	M	F
	Master of Computer Application s (MCA)	02+1**	63	24	87	10	3	6	1	16	6	30	14	1	0		-
2	Master of Business Administr ation (MBA)	64+5*+ 1**	20	14	34	1	0	0	1	0	2	19	11				-
3	M.Sc. (Chemistry)	27+1**	12	15	27	4	- -	1	1	2	5	4	8	1(OC)	0	0	1
4	M.Sc. (Physics)	27+1**	09	15	24	2	1	0	1	0	7	7	6				
4.0	Total	210+5 *+4** =219	104	68	172	17	4	7	4	18	20	60	39	2	0	0	1

<sup>\*</sup> Seats reserved for DASA candidates

<sup>\*\*</sup> Additional seats for the international students under ICCR Scheme PWD – Persons with Disabilities

# Ph.D. PROGRAMME

# Particulars of Intake & Admissions made during 2017-18

Intake for the year 2017-18

OC	OCPWD	OB	OBPWD	SC	SCPWD	ST	STPWD	Total
74	02	39	01	21	01	11	01	150

# Details of Admissions made during 2017-18

S1			iitte gram		ll time	Admitted										rs, Num gory of	ber of
No.	Name of the Department		ows	Other c Non Fell QIP+ Sp and Adr un Visves	ategory- lowship+ onsored nissions der varaya cheme	External		oc		ОВС		sc		ST		(Nonfel QI.P/S) and Ad ur Visve	HERS lowship/ ponsored missions ider svaraya Scheme).
		M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
1	Civil Engg	7	6			1 OC 1 OC *	1 OC	5	3	1	2	1	0	0	1		
2	Applied Mech. & Hydraulics	5	5	I OC (QIP) R		2 OC 1 OC IR 1 OBC IR		3	3	1	2	1	0	0	0	I OC (QIP) R	
3	Mechanical Engg	21	1	2 OC (QIP) R		2 OC 3 OC IR 4 OBC * 4 OC *		9	1	6	0	4	0	2	0	2 OC (QIP) R	
4	Electrical & Electronics Engg	10	2		1 OC (QIP) R	1 OC IR 1 OBC * 1 OC *	1 OBC	6	1	2	1	1	0	1	0	-	1 OC QIP (R)
5	Electronics & Communication Engg	6	2	2 OC (QIP) R 1 VIS (OC)	1 VIS (OC)			5	2	1	0	0	0	0	0	2 OC (QIP) R 1 VIS (OC)	1 VIS (OC)

6	Chemical Engg	2	6					2	3	0	3						
7	Metallurgical & Materials Engg	6	1	1 OC (QIP) R		1 OC		4	0	1	1	1	0	0	0	1 OC (QIP) R	
8	Mining Engg	4	0			1 OC 1 OBC		3	0	1	0	0	0	0	0		
9	Computer Science & Engg	3	3	1 QIP	1 VIS (ST)	1 OC 1 OC IR 1 OBC *	1 OC ER (SPON)	3	1	0	1	0	1	0	0	1 QIP	1 VIS (ST)
10	Information Technology	2	1			1 OC *		1	0	0	1	1	0	0	0		
11	Physics	2	0					2	0	0	0	0	0	0	0		
12	Chemistry	0	5			1 OC 1 OC IR		0	3	0	0	0	1	0	1		
13	Mathematical & Computational Sciences	4	2			1 SC	1 OC *	3	2	0	0	0	0	1			
14	School of Management	3	4			1 ST	1 OC	2	4	0	0	1	0	0	0		
	Total	75	38	7 OC QIP 1 OC VIS	1QIP(R) 2 VIS	20 (9 OC, 7 OC (IR), 1 OBC (IR), 1 OBC, 1 SC, 1 ST Dec. ses. (7 OC, 6 OBC)	4 (2 OC 1 OBC 1 OC ER (SPON) Dec. sess. (1	48	23	13	11	10	2	4	2	7 OC QIP 1 OC VIS	1QIP(R) 2 VIS

<sup>\*</sup> Admissions made during January session 2017, SPON= Sponsored. QIP = Admitted Under AICTE QIP Scheme, VIS= Under Visvesvaraya scheme

#### Total Student's Strength

<u>Programme</u>	<u>Strength</u>
1. Undergraduate	3215
2. Post Graduate (Including MCA/M.Tech./M.Tech (Research)/MBA/M.Sc.)	1405
3. Ph.D. Programme	775
Total	
	5395

#### **7 EVALUATION AND EXAMINATION**

#### 7.1 EDUCATION SYSTEM

The normal duration of programmes leading to B.Tech degree in Engineering is eight semesters. For full time M.Tech. Programmes, the duration of study is a minimum of four semesters and a offour For maximum years. Internal/external registrants, the duration shall be a minimum of five semesters and maximum of five years. For M.Tech. of study shall be a minimum of four by Research program for full-time students, the duration semesters and a four maximum of years. For Internal/External Registrants, the duration will be a minimum of five semesters and a maximum of five years. For Master of Science, programme the duration of study shall be a minimum of four semesters and a maximum of four Master Computer For of Application (MCA) the duration of study shall be a minimum of six semesters and a maximum of six years. For Master of Business Administration (MBA), duration of study is a minimum of four semesters and a maximum of four years. For Doctoral Programmes (Ph.D.) the duration of study is a minimum of two years and maximum of seven years for all categories of research scholars.

Each academic year is divided into two semesters. A semester that is typically from August to Mid- December is called the ODD SEMESTER, and the one that is from January to Mid-May is called EVEN SEMESTER.

The medium of instruction, examination and project work is English only.

### 7.2 EXAMINATION & EVALUATION PROCEDURE

The examination and evaluation work of all the B.Tech./M.Tech./MCA/MSc/MBA students and Ph.D./M.Tech by Research candidates were carried out by the respective Faculty Members in their concerned Departments itself as per the regulations approved by the Senate of the Institute. The Grades obtained by each student with details of attendance in each were submitted to Examination/Evaluation Section for processing their Grade Cards as per the regulations of the Institute. The results were declared and pubished on the website of the Institute in time and Grade Cards were issued to all eligible students.

#### **8 EXAMINATION RESULTS FOR 2017**

#### UNDER GRADUATE (B.Tech.):

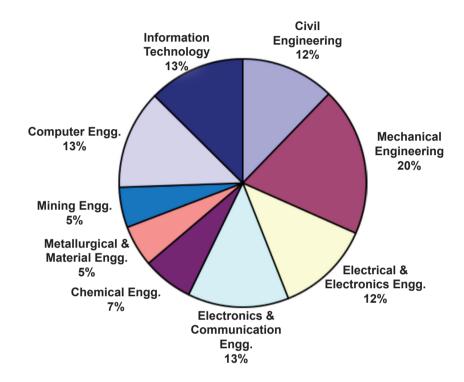
			No. of	studer	its pass	sed in			
Sl.No.	Branch	Total No. Appeared	CGPA above 7 & Below 10	CGPA above 6 & below 7	CGPA above 5 & below 6	CGPA below 5	Total Passed	Percentage of passes	No. of SC/ST candidates passed
1.	Civil Engineering	99	73	16	4+3*	2*	98	98.99	21
2.	Mechanical Engineering	165	116	25	8+1*	1+1 0*	161	97.58	28+8*
3.	Electrical And Electronics Engineering	105	79	20	6	0	105	100.0	20
4.	Electronics And Communication Engineering	112	85	14	7+2*	3+1*	112	100.0	21+3*
5.	Chemical Engineering	50	28	13	6	1+1*	49	98.00	9+1*
6.	Metallurgical And Materials Engineering	42	26	9	5+1*	0	41	97.62	10+1*
7.	Mining Engineering	42	31	6	3	1*	41	97.62	10+1*
8.	Computer Engineering	111	83	16	6+1*	3*	109	98.20	18+3*
9.	Information Technology	107	73	21+ 2*	6	2+3*	107	100.0	19+3*
		833					823	98.80	
	*- Repeaters								

#### **POSTGRADUATE (M.Tech.):**

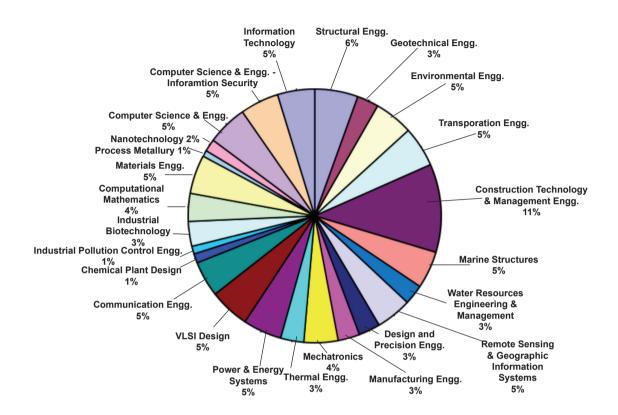
			1	of stud			f l	
S1.No.	Branch	Total No. Appeared	CGPA above 7 & below	CGPA above 6 & below 7	CGPA above 5.50 & below 6	Total Passed	Percentage of passed	No. of SC/ST candidates passed
1.	Construction Technology & Management	52	50	1	0	51	98.08	5
2.	Structural Engineering	24	24	0	0	24	100.0	6
3.	Geotechnical Engineering	14	14	0	0	14	100.0	2
4.	Environmental Engineering	23	21	2	0	23	100.0	4
5.	Transportation Engineering	25	24	1	0	25	100.0	6
6.	Marine Structures	21	20	1	0	21	100.0	3
7.	Remote Sensing & Geographic Information System	13	13	0	0	13	100.0	1
8.	Water Resources Engineering & Management	11	11	0	0	11	100.0	1
9.	Design and Precision Engineering	12	9	1	0	10	83.33	2
10.	Manufacturing Engineering	11	10	0	0	10	90.91	3
11.	Mechatronics Engineering	26	19	7	0	26	100.0	6
12.	Thermal Engineering	13	9	1	3	13	100.0	3
13.	Power & Energy Systems	18	15	2	0	17	94.44	2
14.	VLSI Design	25	18	5	0	23	92.0	5
15.	Communication Engineering	24	16	8	0	24	100.0	4
16.	Chemical Plant Design	6	5	1	0	6	100.0	0
17.	Industrial Biotechnology	22	17	4	0	21	95.45	2
18.	Industrial Pollution Control	11	7	3	1	11	100.0	4
19.	Process Metallurgy	8	6	2	0	8	100.0	2
20.	Materials Engineering	20	16	4	0	20	100.0	4
21.	Nanotechnology	7	6+1*	0	0	7	100.0	1+1*
22.	Computational Mathematics	15	10	3	0	13	86.67	2
23.	Computer Science and Engineering	21	19	2	0	21	100.0	4
24.	Computer Science and Engineering - Information Security	21	18	2	0	20	95.24	5
25.	Information Technology	16	11	5	0	16	100.0	2

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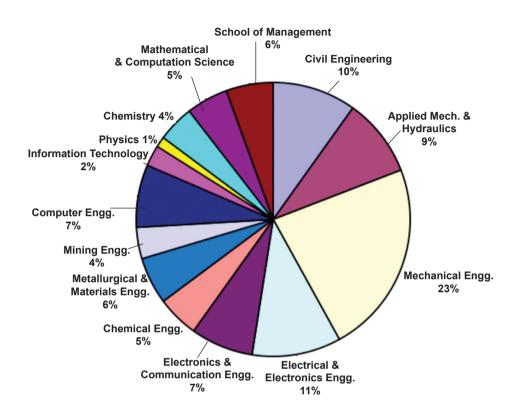
26.	Master of Computer Applications	87	67	15	5	87	100.0	17
27.	Master of Business Administration	34	30	4	0	34	100.0	4
28.	Master of Science (Chemistry)	23	20	3	0	23	100.0	3
29.	Master of Science (Physics)	24	18	3	3	24	100.0	6
	* - Repeaters	627				616	98.25	109+1*



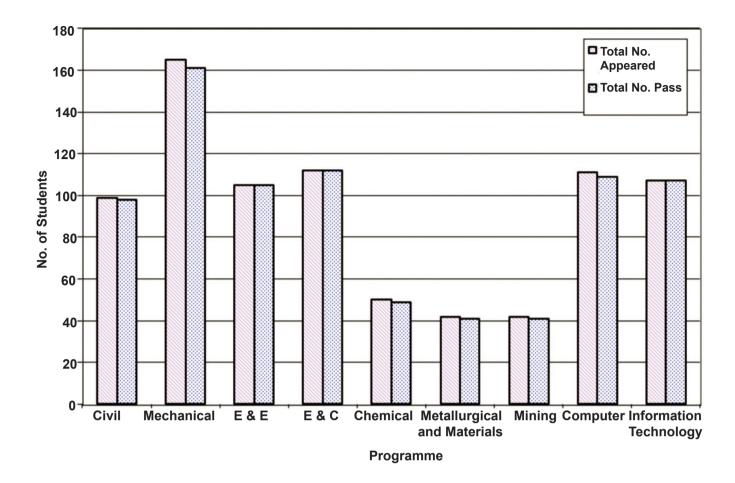
Pie - chart showing discipline wise B.Tech. admissions 2017-18



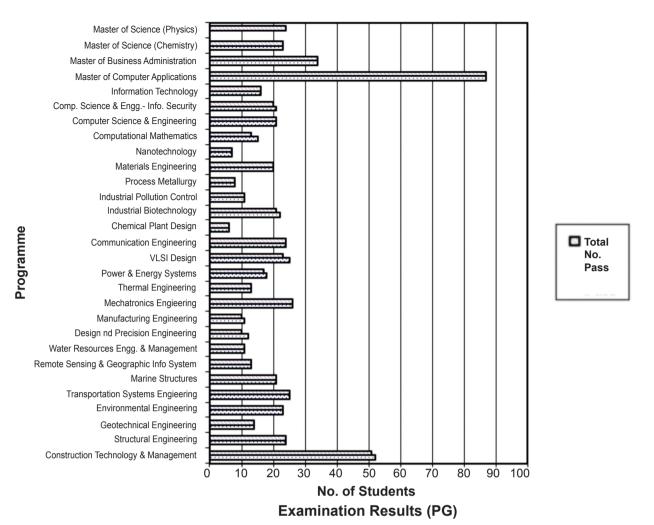
Pie - chart showing discipline wise M.Tech. admissions 2017-18

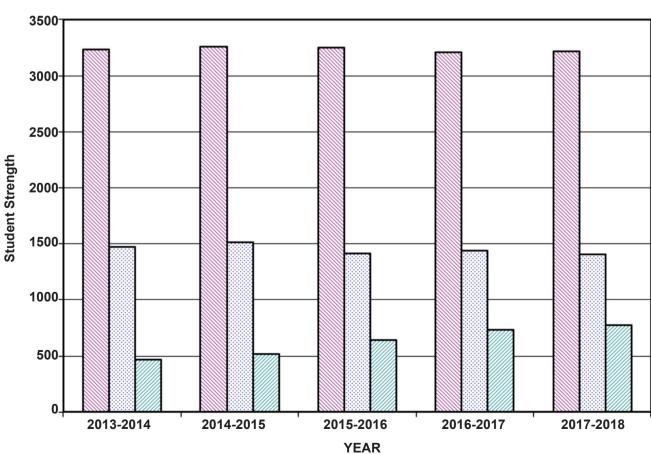


Pie - chart showing discipline with Ph.D. admissions 2017-18

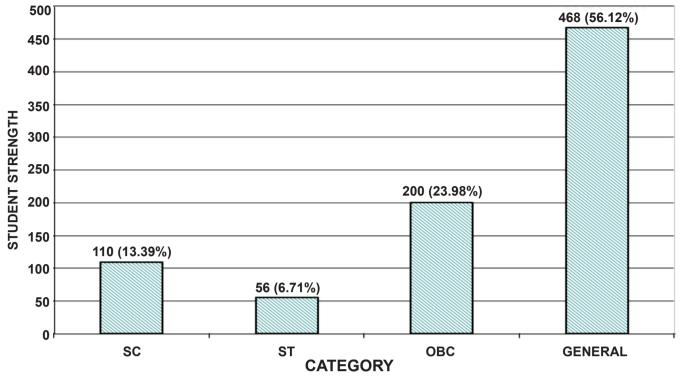


**Examination Results (UG)** 

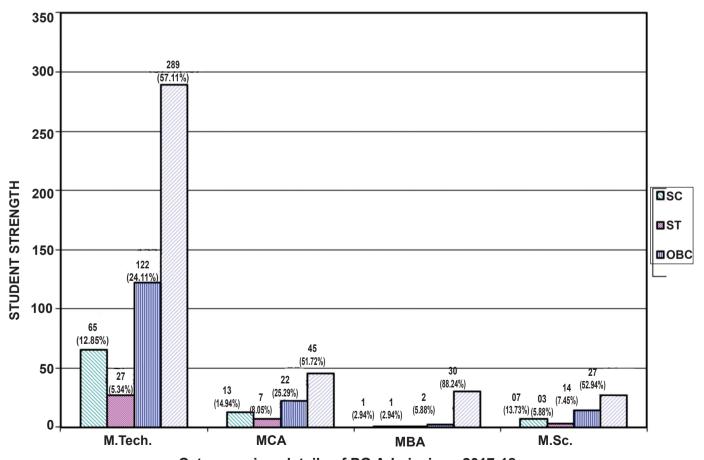




Growth in enrolment UG/PG/Ph.D. students during the last Five years 2013-14 to 2017-18



Categorywise details of UG Admissions 2017-18



Categorywise details of PG Admissions 2017-18

#### Ranks securedby the B.Tech./M.Tech./MCA/MBA/M.Sc. (Physics & Chemistry) Examination held in April/May, 2017

B. Tech.

B. Tee S1. No.	Branch	Reg. No.	Name of the Student
1	CHEMICAL ENGINEERING	13618113CH22	KRATHIKA BHAT  1) Institute Medal  2) Mohan V Hosur Gold Medal  3) 1986 Batch Gold Medal
2	CIVIL ENGINEERING	13611413CV228	NIDHI RAO  1) Institute Medal 2) Prof. M. N. Shivashankar Gold Medal 3) Dr. R.K. Yaji Gold Medal 4) 1986 Batch Gold Medal
3	COMPUTER ENGINEERING	13709513CO203	AMITA AJITH KAMATH  1) Institute Medal
4	ELECTRONICS & COMMUNICATION ENGINEERING	13611813EC130	MANASA GADIYAR  1) Institute Medal  2) 1986 Batch Gold Medal
5	ELECTRICAL & ELECTRONICS ENGINEERING	13641113EE230	NAMRATA NADAGOUDA  1) Institute Medal  2) Prof. M.R. Shenoy Memorial Prize  3) Prof. K. M. Hebbar Gold Medal  4) 1986 Batch Gold Medal
6	INFORMATION TECHNOLOGY	13646913IT140	SHAILEE SANJAY JAIN 1) Institute Medal
7	MECHANICAL ENGINEERING	13625813ME125	B R STHAVISHTHA 1) Institute Medal 2) 1986 Batch Gold Medal 3) Prof. Shuichi Torii Gold Medal
8	METALLURGICAL & MATERIALS ENGINEERING	13633013MT32	R SANTHANU PANIKAR  1) Institute Medal  2) Karthik Alloys Gold Medal  3) Prof. H. V. Sudhaker Nayak Gold Medal  4) SMIORE Gold Medal  5) 1986 Batch Gold Medal
9	MINING ENGINEERING	13610913MN39	SHIVAM SAHU 1) Institute Medal 2) Hutti Gold Mines Medal

#### M.Tech.

S1. No.	Branch	Reg. No.	Name of the Student
1	Marine Structures	15008815MS09F	K SRILAKSHMI 1) Institute Medal
2	Remote Sensing & Geographic Information System	15030415RS08F	N SHIVA SHANKARI  1) Institute Medal 2) Board Chairperson's Medal
3	Water Resources Engineering & Management	15038915WR09F	SHARANNYA T M 1) Institute Medal
4	Chemical Plant Design	15030315PD07F	YOHANNAN BIBIN SABILON 1) Institute Medal
5	Industrial Biotechnology	15012915IB15F	SHRADDHA MUNDRA  1) Institute Medal
6	Industrial Pollution Control	15029215PC07F	MUGADA SARAT KUMAR  1) Institute Medal
7	Construction Technology & Management	15152415CM54F	SHAIK SUBHANI 1) Institute Medal
8	Environmental Engineering	15019615EN08F	KAKADE KSHITIJA CHANGDEO  1) Institute Medal
9	Geotechnical Engineering	15017815GT06F	MAHIMA R 1) Institute Medal 2) Board Chairperson's Medal
9	Geoteeninear Engineering	15005715GT13F	SURYA E V 1) Institute Medal 2) Board Chairperson's Medal
10	Structural Engineering	15002315ST23F	SEETHU K 1) Institute Medal
11	Transportation Engineering	15003715TS02F	ANUSREE ANAND P  1) Institute Medal
12	Computer Science & Engineering	15014015CS03F	BHANU PRIYA SAYAL  1) Institute Medal
13	Computer Science & Engineering – Information Security	15015115IS12F	LAVISH KOTHARI 1) Institute Medal
14	Power & Energy Systems	15017515PS19F	TALE SNIGDHA SUBHASH 1) Institute Medal
15	Communication Engineering	15005315CE08F	AYSWARIA VIJAYAMOHAN  1) Institute Medal
16	VLSI Design	15000215VL04F	ARJUN S KUMAR 1) Institute Medal
17	Information Technology	15016515IT05F	DANI VIVEK PADMANABH 1) Institute Medal
18	Computational Mathematics	15046115CMA10F	PRASHANT KUMAR 1) Institute Medal
19	Design and Precision Engineering	15016115DP08F	LAXIT GOYAL 1) Institute Medal
20	Manufacturing Engineering	15017015MF03F	ANOOP GANESH A 1) Institute Medal

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21	Mechatronics Engineering	15005115MC24F	SHASHIDHAR S UPPIN 1) Institute Medal
22	Thermal Engineering	15008415TH03F	BALAJI S 1) Institute Medal 2) Dr. B. S. Samaga Cash Award
23	Materials Engineering	15037315ML19F	SUJITH S 1) Institute Medal 2) Prof. K R Hebbar Gold Medal
24	Nanotechnology	15009715NT02F	BIKESH GUPTA 1) Institute Medal 2) Board Chairperson's Medal 3) Prof. K. L. Bhat & Prof. P. Prasad Rao Gold Medal
25	Process Metallurgy	15008015PM08F	VIJAY PRAKASH SINGH PARIHAR 1) Institute Medal 2) Mrs. Sarojini Pillai Gold Medal

Master of Computer Applications - 2017

S1. No.	Branch	Reg. No.	Name of the Student
26	Master of Computer Applications	14205414CA45	NITIN GHAWANA 1) Institute Medal 2) Dr. Saroja R Hebbar Gold Medal

Master of Business Administration - 2017

S1. No.	Branch	Reg. No.	Name of the Student
27	Master of Business Administration	15301115HM29	SOMYA SINGH 1) Institute Medal 2) Board Chairperson's Medal

Master of Science - 2017

S1. No.	Branch	Reg. No.	Name of the Student
28	Chemistry	15402815CY17	SATHISH C G 1) Institute Medal 2) Prof. G. H. Kulkarni Gold Medal
29	Physics	15401315PH10	LEKSHMI S 1) Institute Medal 2) K. Subbarayappa Gold Medal

## 9. Ph.D.PROGRAMMES & DOCTORATES AWARDED

## Ph.D. PROGRAMMES – EXISTING & PROPOSED

#### DEPARTMENT OF APPLIED MECHANICS AND HYDRAULICS EXISTING:

#### •SPECIALIZATION

- (i) Coastal Engineering
- (ii) Water Resources Engineering
- (iii) Remote Sensing and GIS

### **DEPARTMENT OF CIVIL ENGINEERING EXISTING:**

#### •SPECIALIZATION

Structural Engineering, Geotechnical Engineering, Transportation Engg., Environmental Engineering, Construction Technology and Management, Geology and Earth Sciences

## DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING:

#### **EXISTING:**

#### •SPECIALIZATION

Computer Networks, Software Engineering, Distributed Computing, Data Management, Information Security, High Performance Computing, Computer Vision, Cloud Computing, Image Processing, Speech Processing, Mobile computing

#### PROPOSED:

#### •SPECIALIZATION

Graph Theory, Graph Algorithms

### **DEPARTMENT OF CHEMISTRY EXISTING:**

#### •SPECIALIZATION

Inorganic, Organic, Physical, Photocatalysis, Membrane technology, nanomaterials, Medicinal chemistry, Organic electronics and Organic synthesis, Synthetic Organic Chemistry. Catalysis. Aerobic oxidation.

#### PROPOSED:

#### • SPECILIZATION:

Perovskite solar Cells and Oleds

### DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

#### **EXISTING:**

#### •SPECIALIZATION

Digital VLSI Design, Analog and Mixed Signal Design, Digital Signal Processing, Speech, Audio, Image and Processing, Digital Communication, Error Control Coding, Free Space Optics, RF MEMS, Microwave and RF Circuits, Wireless Sensor Networks, High Frequency Electronics, Semiconductor Devices, Embedded Systems, Reconfigurable Computing

### DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

#### **EXISTING**:

#### •SPECIALIZATION

Power Systems, Distributed Generation, Energy Systems, Power Electronics & Drives, Renewable Energy, High Voltage Engineering, Flexible AC Transmission System (FACTs), Control Systems, Power System Protection, Smart Grid & Sensor Networks.

## DEPARTMENT OF INFORMATION TECHNOLOGY EXISTING:

#### •SPECIALIZATION

Affective Computing, Big Data Analysis, Bio-Inspired Computing, Cloud Computing, Cloud Security, Computer Networks, Cyber Security, Databases, Data Mining, Distributed Computing, Healthcare Informatics, Computing, Information Performance Security, Internet of Things, Multimedia Network Security, Web Computing, Services, Wireless Sensor Networks.

#### PROPOSED:

#### •SPECIALIZATION

Edge/Fog Computing, IoT for Smart City / Smart Office / Smart Building / Smart Classroom, Information Retrieval, Natural Language Processing, Semantic Web

Technology, Social Multimedia/Social Network Analysis

### DEPARTMENT OF MATHEMATICAL AND COMPUTATIONAL SCIENCES

#### **EXISTING:**

#### •SPECIALIZATION

Computational Fluid Dynamics, Wireless Sensor Networks, Reliability Engineering, Graph Theory, Graph Algorithms, Computer Network Security, Real Analysis, Dynamical Systems, Fixed Point Theory, Image Processing, Differential Equations, Numerical Methods.

## DEPARTMENT OF MECHANICAL ENGINEERING EXISTING:

#### •SPECIALIZATION

Thermal Engineering, Manufacturing Engineering, Design And Precision Engineering, Mechatronics Engineering

## DEPARTMENT OF MINING ENGINEERING EXISTING:

#### •SPECIALIZATION

Rock Mechanics and Ground Control, Drilling and Blasting, Mine Planning Environmental Management

## DEPARTMENT OF METALLURGICAL AND MATERIALS ENGINEERING EXISTING:

#### •SPECIALIZATION

Process Metallurgy, Physical Metallurgy, Mechanical Metallurgy, Materials Engineering, Nanotechnology

### **DEPARTMENT OF PHYSICS EXISTING:**

#### •SPECIALIZATION

Solid State Physics, Materials Science, Theoretical Physics, Electromagnetics, Photonics, Compound Semiconductor thin films.

#### PROPOSED:

#### •SPECIALIZATION

Theoretical investigation of strongly correlated systems and solar cells

## SCHOOL OF MANAGEMENT EXISTING:

#### SPECIALIZATION

Management, Social Sciences and Humanities

#### **DOCTORATES AWARDED**

## DEPARTMENT OF APPLIED MECHANICS AND HYDRAULICS

Upto 31st March 2017: 64 During period 1st April 2017 to 31st March 2018: 08

- Bhojraj B.E., Hyperspectral vegetation indices for Arecanet crop monitoring, 2017, Dr. Amba Shetty & Dr. M.K.Nagaraj
- 2. Rohan Colaso, Sensitivity of risks in construction scheduling, 2017, Dr. M.K.Nagraj
- 3. Binu Mol, Studies on the effects of an emerged Impermeable and seaside perforated quarter circle breakwaters on near field hydrodynamics, 2017, Dr. A.Vittal Hegde & Dr. Subba Rao
- 4. Akshay B.J., Integrated vulnerability assessment of Karnataka coast: A geographical approach, 2017, Dr. A.Vittal Hegde
- 5. Subrahmanya K., Hydro-geological studies on coastal wetland A case study, 2017, Dr. A.Mahesha
- 6. Amog Mudbhatkal, Assessment of climate change impacts on river basins originating in the Wester Ghats of India, 2017, Dr. A. Mahesha
- 7. Yajneshwaran B., Parametric study of

- soil structure interaction of a Diaphragm wall type berthing structure, 2017, Dr. Subba Rao & Dr. A. Vittal Hegde
- 8. Jagalingam B., Pan-sharpening the spatial resolution of multispectral image for the assessment of near shore Bathymetry, 2018, Dr. A. Vittal Hegde
  - Mohammad Shahid Gulgundi, Identification and appointment of pollution sources to GW quality using Receptor models, 2018, Dr. Amba Shetty

## DEPARTMENT OF CHEMICAL ENGINEERING

- 1. Anusha Krishnamurthy "Studies on a fibrinolytic enzyme produced from marine *Serratia marcescens* subsp. *Sakuensis*", 2018, Dr. Prasanna B.D.
- 2. Gopinath K. "Studies on Particulate Matter in Ambient Air of Urban Mangalore", 2018, Dr. Raj Mohan B.
- 3. Pooja Nanda "Studies on Site-Specific Pegylation of Uricase from Bacillus fastidious using mPEG-Derivatives", 2017, Dr. P.E. Jagadeesh Babu
- 4. Balakrishna Prabhu K. "Study of New Chitosan Based Derivatives for Removal of Heavy Metals from Waste Water", 2017, Dr. M.B. Saidutta & Dr. Arun M. Isloor
- 5. Mr. Rajashekhara, S. "Batch Drying Studies of Solids in a Multiple Draft Tube Spouted Bed", 2017, Dr. D.V.R. Murthy
- 6. Kunal Kumar "Studies On Novel Oxalate Oxidase Production By An Endophytic Bacterium *Ochrobactrum* intermedium CL6", 2017, Dr. Prasanna B.D.

### DEPARTMENT OF CIVIL ENGINEERING

Up to 31<sup>st</sup> March 2017:- 65 During period 1<sup>st</sup> April 2017 to 31<sup>st</sup> March 2018: 05

- 1. B.M. Mithun, Performance of Alkali Activated Concrete Mixes Incorporating Copper Slag as Fine Aggregates, 2017, M. C. Narasimhan.
- 2. B.O. Naveen, Structural Damage Identification Using High Dimensional Model Representation, 2018, S. Balu.
- 3. Anil Kumar Studies on Modulus of Resilience of Lateritic Soil Blends Using CBR, DCP, PFWD, and Cyclic Triaxial Tests, with FEM Based Analysis on Dynamic Loading, 2018, Varghese George
- 4. Amritha A.S, Fenton and Photo Fenton Oxidation of Aniline Derivatives in Water, 2018, Basavaraju Manu.
- 5. Shivakumar G., Effect of Lower Working Temperatures on Physical and Mechanical Properties of Warm Mix Asphalt Mixtures, 2018, Suresha S.N.

# DEPARTMENT OF COMPUTER ENGINEERING UPTO 31<sup>ST</sup> MARCH 2017:- 19 DURING PERIOD 1<sup>ST</sup> APRIL 2017 TO 31<sup>ST</sup> March 2018:- No.

Awarded: **08** 

- 1. Krishna Kumar P "Measurement of carotid artery wall thickness and diameters from magnetic resonance and ultrasound images" 2017, Dr. Jeny Rajan
- 2. Manoj Kumar M. V "An approach for handling concept drift and model simplification in log-based process analysis", 2017, Dr. Annappa
- 3. Manoj V. Thomas "Identity and access management in the cloud federation environments" 2017, Dr. K. Chandrasekaran
- 4. Sumith N "Identification and analysis of influence in social networks: user centric approach", 2018, Dr. Swapan Bhattacharya and Dr. Annappa
- 5. Likewin Thomas "Process mining based critical path recommendation in health care management", 2018, Dr. Annappa

- 6. Usha D "A Trust Based Security of Resources in Cloud Environment" 2018, Dr. K. Chandrasekaran
- 7. Bindu P "VGraph feature based multilayer social network analysis for anomaly detection" 2018, Dr. P. Santhi Thilagam
- 8. Vathsala H "Long range prediction of Indian summer monsoon rainfall using data mining and statistical approaches" 2018, Dr. Shashidhar G. Koolagudi.

#### DEPARTMENT OF CHEMISTRY

UPTO 31<sup>ST</sup> MARCH 2017: 81
DURING PERIOD 1<sup>ST</sup> APRIL 2017 TO
31<sup>St</sup> March 2018:- No. Awarded
(including those for which viva has been successfully completed):- 07

- 1. Harikrishna Nandam, April, 2017, Dr. A. M. Isloor.
- 2. Liju Elias, August 2017, Dr A. C. Hegde
- 3. Dr. Mohamed Jafer Sadiq M., Ph.D. Title: Graphene Metal Tungstate Nanocomposites for Catalytic Applications, November, 2017., Dr. D. Krishna Bhat
- 4. Raghavendra Seetharama Hebbar "
  Preparation, Characterization and performance studies of polyetherimide based membranes for water purification" September 2017, Dr Arun M. Isloor.
- 5. Irfana Moideen K. "Preparation and characterization of polyarylsulfone based membranes for water purification" December 2017, Dr Arun M. Isloor
- 6. Sandhya S, January, 2018, Dr A. C. Hegde.
- 7. Praveen Naik, February, 2018, Dr A.V. Adhikari

## DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

UPTO  $31^{ST}$  MARCH 2017:- No. Awarded (including those for which

- viva has been successfully completed):- 18

  DURING PERIOD 1<sup>ST</sup> APRIL 2017 TO

  31<sup>ST</sup> MARCH 2018:- No. Awarded (including those for which viva has been successfully completed):- 03

  (FOR PERIOD OF REPORT ONLY)
- 1. Jagadish D. N. "Design of Low Power Successive Approximation Register Analog to Digital Converter", September 2017, Dr. M. S. Bhat.
- 2. Jora M. Gonda "Power shield: A power-quality enhancer for current-source type of nonlinear loads", October 2017, Dr. Sumam David S.
- 3. Gnane Swarnadh Satapathi "Efficient Tracking Algorithms with phased Array radars in the presence of Electronic Counter Measures", December 2017, Dr. P. Srihari.

### DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING

UPTO 31<sup>ST</sup> MARCH 2017:- 22 DURING PERIOD 1<sup>ST</sup> APRIL 2017 TO 31<sup>st</sup> March 2018:-No. Awarded: 01

1. (Mr. Tangella Bhavani Shanker "ACOUSTIC **EMISSION** SIGNAL BASED INVESTIGATIONS INVOLVING L.ABORATORY AND FIELD STUDIES RT, LATED TO PARTIAL DISCHARGES **HOT-SPOTS** IN POWER TRANSFORMERS", 2017, Dr., Gururaj S Punekar & Dr, Nagamani H N. (of CPRI Bangalore))

## DEPARTMENT OF INFORMATION TECHNOLOGY

UP TO 31<sup>ST</sup> MARCH 2017: 13 DURING PERIOD 1<sup>ST</sup> APRIL 2017 TO 31<sup>ST</sup> MARCH 2018: 5

- 1. Pushpalatha K, "Effective Multimedia Document Representations for Knowledge Discovery", July 2017, Prof. Ananthanarayana V S
- 2. Biju R Mohan, "Resource Consumption Analysis of Virtualised Server Consolidation System", November 2017, Prof. G. Ram Mohana Reddy
- 3. Shridhar G Domanal, "Bio-Inspired QoS Aware Resources Allocation and Management at the Cloud Data Center", January 2018, Prof. G. Ram Mohana Reddy
- 4. Neeraj kumar Sharma "Energy Eficient Resource management and Task Scheduling at the Cloud Data Center" February 2018, Porf. G Ram mohana Reddy.
- 5. Ajaya Kumara M A, "Virtual machine introspection Based Malware Detection Approach at Hypervisor for virtualized Cloud Somputing Environment" March 2018, Dr. Jaidhar C D

## DEPARTMENT OF MATHEMATICAL & COMPUTATIONAL SCIENCES

During Period 1st April 2017 to 31st March 2018:- :- No. awarded (including those for which viva has been successfully completed):-5
(FOR PERIOD OF REPORT ONLY)

- 1. Ramu Geddavalasa, "Frames for Operators in Hilbert and Banach Spaces", 2017, Dr. P Sam Johnson.
- 2. Srinivasa Rao Nadiminti, "Numerical Investigation of Entrance Region Flow Heat Transfer of Viscoplastic Fluids in Rotating Concentric Annuli", 2017, Dr. A Kandasamy.
- 3. V.V.P.R.V.B Suresh Dara, "A Study on Graph Operators and Colorings", 2017, Dr. S.M.Hegde.
- 4. Mohd. Ahmed, "On the Solutions of Viscous Burgers Equations" 2017, Dr. Murugan V.

5. Sabari M, "Steepest Descent Type Methods for Nonlinear Ill-Posed Operator Equations", 2017, Dr. Santhosh George

#### DEPARTMENT OF MECHANICAL ENGG.

UPTO 31<sup>ST</sup> MARCH 2017:- No. Awarded (including those for which viva has been successfully completed): 505

DURING PERIOD 1<sup>ST</sup> APRIL 2017 TO 31<sup>ST</sup> March 2018:- No. Awarded (including those for which viva has been successfully completed):- 13

- GOPI KR, Sever Plastic Deformation of Magnesium Alloys by Equal Channel Angular Pressing,2017, Guide: Dr. H Shivananda Nayaka.
- GAJANAN ANNE, Development and Characteristics of Ultrafine Grained Mg-Zn/Al Multi layered Composites by Accumulative Roll Bonding Process, 2017, Guide: Dr. Ramesh M.R, Dr. H Shivananda Nayaka
- 3. SUHAS B G, Investigation on subcooled flow boiling heat transfer to water-ethanol mixture in conventional channel, 2018, Guide: Dr. Sathyabhama A
- 4. NIVISH GEORGE, Buckling and Dynamic Characteristics of non-uniformly heated FG-CNT polymer nano composite plate, 2017, Guide: Dr. S M Murigendrappa and Dr. P. Jeyaraj
- 5. VINOD S BHAGAT, Buckling and Dynamic Behavior of non-uniformly heated cylindrical panels, 2017, Guides: Dr. P. Jeyaraj and Dr. S M Murigendrappa.
- 6. M P ARUNKUMAR, Studies on Vibration and Acoustics Response Characteristics of Sandwich Aerospace Structures, 2018, Guides: Dr. P. Jeyaraj and Dr. K V Gangadharan.

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- 7. Vinyas M. Static behaviour of functionally graded magnetoelectroelastic plates and beams in thermal and hygrothermal environment, 2018, Guide: Dr. SubhaschandraKattimani.
- 8. Kamal Babu Processing and characterization of cuttlebone reinforced composites for biomedical applications, 2017, Guide: Dr.G.C Mohan Kumar.
- 9. MurulidharLakkanna Critical Design Aspects of Plastic Injection Mould, 2017, Guide: Dr.G.C.Mohan Kumar &Dr.RavikiranKadoli.
- 10. Sriharsha Hegde , Development And Evaluation Of Damping Characteristics And Shear Properties Of Magnetorheological Elastomers, 2017, Guide: Dr. K V Gangadharan.
- 11. Venkatesh T. Lamani, Suitability of Biofuels and Plastic Oil Blended with Diesel in CRDI Engine, 2017, Guides: Ajay Kumar Yadav& Dr. Kumar G. N.
- 12. Parashuram Bedar, Performance Emission and Combustion Analysis of Low Temperature Combustion Using Biodiesel on C I Engine, 2017 Guide: Dr Kumar G N
- 13. Parashuram R. Chitragar, Experimental Analysis of a Multi Cylinder Spark ignition Engine Fueled with Hydrogen Fuel, 2017, Guide: Dr Kumar G N

#### DEPARTMENT OF MINING ENGINEERING

Up to 31st March, 2018: No. awarded (including those for which viva has been successfully completed):- 19 Up to 31st March 2018 (During period 1st April 2017 to 31st March 2018):- 3 (FOR PERIOD OF REPORT ONLY)

1. Balla Kalyan", Experimental investigation on assessment and prediction of specific energy in Rock indestation test", April 2017, Prof.Ch. SN.Murthy & Prof.R.P Choudhary.

- 2. N Laxmipathi," Study illumination system in surface mining project and Development of optimum lighting Design Parameters" October 2017, Prof. Ch.S.N.Murthy, Dr. M. Aruna
- 3. 3. Sripad Ramachandra Naik," Studies on stability assessment of large coverns in Himalayan Region"November 2017, Prof.V.R.Sastry

## DEPARTMENT OF METALLURGICAL AND MATERIALS ENGINEERING

## Up to 31st March 2017:- 41 During period 1st April 2017 to 31st March 2018:- 05

(FOR PERIOD OF REPORT ONLY)

- Hemanth Kumar V., "Optimisation of process parameters and assessment of mechanical properties of in-situ AA6082
   TiB<sub>2</sub> particle reinforced composites", 2017, Dr. Ravishankar K. S.
- 2. Melby Chacko, "Effect of T6 Treatment on Corrosion of Al-SiCp Composite & Inhibition Evaluation of Benzimidazole and its Derivatives", 2017, Dr. Jagannatha Nayak
- 3. Sharath P. C., Mechanical Properties and Microstructural Characterisation of Multi Directional Forged and Heat Treated Zn-24Al-2Cu Alloy, 2018, Dr. Preetham Kumar G. V. & Dr. K. Rajendra Udupa
- 4. Shamanth V., Evaluation of the Mechanical Properties for Reversion Heat Treated of Thermally Embrittled Duplex Stainless Steels, 2018, Dr. Ravishankar K. S.
- Baskaran T., Synthesis and Development of Sm<sub>2</sub>SrAl<sub>2</sub>O<sub>7</sub> Based Air Plasma Sprayed Ceramic Thermal Barrier Coatings: Oxidation, Hot Corrosion and High Temperature Erosion Study, 2018, Dr. Shashi Bhushan Arya

#### DEPARTMENT OF PHYSICS

UPTO 31ST MARCH 2017:- No. Awarded (including those for which viva has been successfully completed):- 20
DURING PERIOD 1ST APRIL 2017 TO 31st March 2018:- No. Awarded (including those for which viva has been successfully completed):- 07
(FOR PERIOD OF REPORT ONLY)

- 1. Siby Thomas, "Molecular Dynamics Studies of the Structural, Thermo-Mechanical and Finite Size Elastic Properties of Hexagonal Boron Nitride", 2017, Dr. Ajith K.M.
- 2. Sangeeth K, "Optoelectronic Devices With 2D Materials", 2017, Prof. G. Umesh and Prof. K. Navkantha Bhat.
- 3. Shourie Ranjana J., "Investigations On InSb Plasmonic Devices for Sensor Application at Terahertz Frequencies", 2017, Prof. G. Umesh and Dr. M.N. Satyanarayan.
- 4. Jean Maria Fernandes, "Charge Transport Investigations in Triarylamine Derivatives Based Organic Devices", 2017, Dr. M.N. Satyanarayan and Prof. G. Umesh
- 5. Sreejesh,M., "Preparation Characterization and Applications of Graphene and its Composites", 2017, Dr. H.S. Nagaraj
- 6. Ramana Reddy P, "Preparation and Characterization of Porous Anodic Alumina Nanostructures", 2017, Prof. N.K. Udayashankar and Dr. Ajith K.M.
- 7. Jyothi J., "Nanostructured Spectrally Selective Coatings for High-Temperature

Solar Thermal Applications", 2018, Dr. H.S. Nagaraja and Dr. Harish Barshilia

#### SCHOOL OF MANAGEMENT

UPTO 31<sup>ST</sup> MARCH 2017:- No. Awarded (including those for which viva has been successfully completed):- 19

DURING PERIOD 1<sup>ST</sup> APRIL 2017 TO 31<sup>st</sup> March 2018:- No. Awarded (including those for which viva has been successfully completed):- 6 (FOR PERIOD OF REPORT ONLY)

- 1. Ms. Claret P E Mendonca, "Women Entrepreneurs in Small and Medium Enterprises and their Access to Finance", 03.07.2017, Prof. A. H. Sequeira
- Ms. Shilpi Saha, "Impact of Organisational Culture, Trust and Participation in Decision Making on Multiple Commitments" 20.07.2017, Dr. S Pavan Kumar;
- 3. Mr. Bibhudatta Dash, "Transcultural Displacements: A Study of Cultural Dichotomies and Spatiotemporality in Select South Asian Migrant Literature", 09.10.2017, Dr. Dhishna P
- 4. Mr. Krishna Prasad, "Determinants of Exchange Rate Exposure: A Study of Indian Firms", 06.12.2017, Dr. Suprabha K. R.
- 5. Mr. Sumukh S. Hungund, "Innovation Approaches, Practices and Firm Performance among Select Software Product SMEs: A Case of Bangalore Firms", 12.02.2018, Prof. K. B. Kiran
- 6. Ms. Ritika Jaiswal, "An Empirical Analysis of Hedging and Diversification Role of Commodity Futures as a Risk Management Tool", 22.03.2018, Dr. Rashmi Uchil)

#### 10.0 HUMAN RESOURCES

#### 10.1 STAFF POSITION

Teaching Staff	Number
Professors	63
<b>Associate Professors</b>	35
<b>Assistant Professors</b>	130
Other staff, A.P.D. &	
System Manager	02
Contract Faculty	<u>09</u>

239

#### Non-Teaching Staff

Administrative Officers Technical supporting staff	17 56
Non-technical supporting staff	93

166

#### THE STAFF

## (A) Administrative Staff (Teaching) Director: (Head of the Institution)

K N Lokesh, Ph.D. till 21.7.2017 F.N. K Uma Maheshwar Rao, Ph.D. 21.7.2017 F.N.

#### Dean (Academic)

Katta Venkataramana, Ph.D. till 30.09.2017 M B Saidutta, Ph.D. from 1.10.2017 onwards

#### Dean (Planning and Development)

A U Ravishankar, Ph.D. till 31.12.2017 G S Dwarakish, Ph.D. from 1.1.2018

#### Dean (Faculty Welfare)

T P Ashok Babu, Ph.D. till 14.03.2018 A H Sequeira, Ph.D. from 15.03.2018

## Dean (Alumni Affairs & Institutional Relations)

M B Saidutta, Ph.D. from 15.5.2013 to 31.8.2016

Prasad Krishna, Ph.D. from 1.9.2016

#### Dean (Student's Welfare)

Uday Kumar R Y, Ph.D. from 8.10.2013 to 7.10.2016

S M Hegde, Ph.D. from 7.10.2016

#### Dean (Research & Consultancy)

Ananthanarayana, Ph.D. from 1.9.2016

#### ACADEMIC STAFF (TEACHING)

## Department of Applied Mechanics and Hydraulics Professors:

A. Vittal Hegde, Ph.D. (Mangalore University)

N. Lakshman, Ph.D., (I.I.Sc., Bangalore) M.K. Nagaraj, Ph.D. (I.I.Sc., Bangalore) Subba Rao, Ph.D. (Mangalore University),

G.S. Dwarakish, Ph.D. Anna University) Mahesh A, Ph.D. (IIT Bombay) HOD from 12.3.2017

Kiran G. Shirlal, Ph.D. (NITK)

#### **Associate Professors**

Amba Shetty, Ph.D. (NITK) K Varija, Ph.D. (IISc. Bangalore) B.M. Doddamani, Ph.D. (NITK) P.C. Deka, Ph.D. (I.I.T. Guwahati)

#### **Assistant Professors:**

K. Subrahmanya, Ph.D. NITK Manu, (Ph.D. NITK) Pruthviraj U., Ph.D. (NITK) H.Ramesh, Ph.D. (NITK) K. Vadivuchezhian, Ph.D. (IIT Madras) Nasar T, Ph.D. (IIT, Madras) Debabrata Karmakar, Ph.D., (IIT Kharagpur) 5.5.2015

### Department of Chemical Engineering Professors:

G. Srinikethan, Ph.D. (I.I.T. Madras) Gopal Mugeraya, Ph.D. (I.I.Sc. Bangalore) on deputation to NIT Goa as Director from 15.07.2017 M.B. Saidutta, Ph.D. (I.I.T. Bombay) Hari Mahalingam, Ph.D. Singapore HOD from 01.09.2017

#### Associate Professors:

K. Vidya Shetty, Ph.D. (NITK) B. Raj Mohan., Ph.D. (I.I.T., Kharagpur), HOD from 1.9.2015 to 31.08.2017

#### **Assistant Professors:**

S. Gangamma, Ph.D. IIT, Bombay Jitendra Pal S., Pursuing Ph.D. at IIT Delhi

Prasanna B.D., M.E. (Ph.D. NITK) Regupathi, Ph.D., (Anna University, Chennai)

P.E. Jagadeeshbabu, Ph.D. (Anna Univ. Chennai)

Hari Prasad Dasari, Ph.D. (Korea Institute of Science and Technology, Korea)

Keyur Raval, Ph.D. (Aachen Den University)

D.Ruben Sudhakar, Ph.D. (IIT Madras) B. Ashraf Ali, Ph.D. (IIT Madras) Jagannathan T K, Ph.D. (IIT Madras) Chinta Sarkar Rao, Ph.D. (IIT, Madras) (Contractual)

## Department of Civil Engineering Professors:

R. Shivashankar, Ph.D. (A.I.T. Bangkok) K.N. Lokesh, Ph.D. (Geology) (Gulbarga University)

M.C. Narasimhan, Ph.D. (IIT Madras) Katta Venkataramana, Dr.Eng. (Kyoto University, Japan)

A.U. Ravi Shankar, Ph.D (Univ. of Roorkee)

K. Swaminathan. Ph.D. (I.I.T. Bombay) Varghese George, Ph.D. (I.I.T. Bombay) HOD from 21.4.2017

S. Shrihari, Ph.D. (Univ. of Roorkee) Sitaram Nayak, Ph.D. (I.I.Sc. Bangalore) Subhas C. Yaragal, Ph.D. (IISc. Bangalore)

K.S. Babunarayan, Ph.D. (NITK)

#### Associate Professors:

## B.R. Jayalekshmi, Ph.D. (NITK) **Assistant Professors:**

Sunil B.Malegole, Ph.D. (NITK)
Prashanth M.H., Persuing Ph.D. at IISc
Basavaraj Manu, Ph.D. (IIT, Bombay)
Raviraj H. Mulangi, M.E., Ph.D., IISC
Suresha S N, Ph.D. (NITK)
Arun Kumar Thalla (IIT Rourkee), Ph.D.
Gangadhar Mahesh, Ph.D. (Hongkong)
A. S Balu, Ph.D. (IIT Madras)
C Rajasekaran, (IIT Madras)
C.P. Devatha, Ph.D. (IIT Roorkee)
A. Gowri, Ph.D. (IIT Madras)
Anjana Bhasi, Ph.D. (IIT, Madras)
contractual
Bibuti Bhushan Das, Ph.D., (IIT Bombay)

## Department of Computer Engineering Professors:

K. Chandrasekaran, Ph.D. (J.N.T.U.)

#### **Associate Professors**

Vani M., M.Tech. (NITK, Surathkal) HOD from 17.8.2015 to 05.1.2017 Shanthi Thilagam, Ph.D. (NITK) HOD from 6.1.2017 Annappa,Ph.D (NITK, Surathkal)

#### **Assistant Professors:**

Alwyn Roshan Pais, Ph.D. (NITK)
Saumya A. Hegde, M.Tech. (NITK)
B.R. Chandavarkar, Ph.D. NITK
Mahendra Patap Singh, pursuing Ph.D.
Shashidhar G Koolagudi, Ph.D.(IIT
Kharagpur)
Jeny Rajan, Ph.D. (University of
Antwerpen, Belgium)
Mohit P. Tahiliani, Ph.D. (NITK)
Basavaraj Talawar, Ph.D. (IISC
Bangalore)
Manu Basavaraju, Ph.D. (IISC,
Bangalore)
M Venkatesan, Ph.D. (VIT University,
Vellore) - Contractual

## Department of Chemistry Professors:

A. Nityananda Shetty, Ph.D. (Mangalore Univ.)

A. Vasudeva Adhikari, Ph.D. (Karnatak Univ.)

A. Chitharanjan Hegde, Ph.D. (Mangalore Univ.)

B. Ramachandra Bhat, Ph.D. (Mangalore Univ.)

Krishna Bhat, Ph.D. (Mangalore Univ.) HOD from 11.8.2016

#### Associate Professors:

Arun Mohan Isloor, Ph.D. (Mangalore University)

#### Assistant Professors:

Udaya Kumar D., Ph.D. (NITK, Surathkal)
Darshak R. Bhai Trivedi, Ph.D. (Bhavnagar University)
Sib Sankar Mal, Ph.D. (JUB Germany)
Beneesh P. B., Ph.D. (University of Kerala)
Debashree Chakraborty, Ph.D. (IIT Kanpur)
Saikat Dutta, Ph.D. (University of Iowa, USA)

#### Department of Electronics And Communication Engineering Professors:

S. Sumam David, Ph.D. (I.I.T. Madras) Muralidhar Kulkarni, Ph.D. (JMI – New Delhi) M. Shankarnarayan Bhat, Ph.D. (I.I.Sc., Bangalore) John D'Souza, Ph.D. (I.I.T.Kharagpur)

U. Sripati Acharya, Ph.D., (I.I.Kharagpur) Bangalore) HOD from 1.4.2016 to 16.04.2018

#### Associate Professors:

M. Ramesh Kini, Ph.D. NITK Neelavar Shekar Shet, Ph.D. (NITK) Laxminidhi T., Ph.D. (IIT, Madras) HOD from 17.04.2018 Ashwini Chathurvedi, Ph.D. (MUM Malaysia)

#### **Assistant Professors:**

Rekha S., Ph.D.

Kalpana G. Bhat, M.Tehc. Karnataka University Aparna P., Ph.D. (NITK) Joseph Antony A., M.E. (Anna Univ., Chennai) - Resigned from 23.04.2018 B. Nagavel, M.E., (Jadavpur University)Persuing Ph.D. atIIT Kharagpur Krishna Moorthy K., Ph.D. at IIT, Bombay Deepu Vijayasenan, Ph.D. (EPFL, Swizerland) Prashantha Kumar H, Ph.D. (NITK) M R Arulalan, Ph.D. (IISC, Bangalore) Raghavendra B S, Ph.D. (IISC, Bangalore) A V Narasimhadhan, Ph.D. (IISc), Bangalore Pathipati Srihari, Ph.D. (Andhra University) Shyam Lal, Ph.D. (BIT Ranchi) Ratnamala Rao, Ph.D. (IIT Madras)

## Department of Electrical And Electronics Engineering Professors:

Udayakumar R.Y., Ph.D. (IIT Bombay) on deputation to MNIT, Jaipur as Director from 08.10.2016 K. Panduranga Vittal, Ph.D. (Mangalore Univ.)

#### Associate Professors:

Jora M. Gonda, Ph.D. NITK
Shubhanga K.N., Ph.D. (IIT, Bombay)
K. Rajagopal, M.Tech. (I.I.T. Kharagpur)
Vinatha U., Ph.D. (NITK, Surathkal) HOD
till 11.5.2017
Gururaj S. Punekar, Ph.D. (IIT,
Kharagpur)
K. Manjunatha Sharma, Ph.D. (NITK)
Venkatesa Perumal, Ph.D. (IIT Delhi)
HOD from 29.5.2017

#### Assistant Professor:

Iddya Raghavendra Rao M.Tech. (Mangalore Univ.) Nagendrappa H., Ph.D. (Canada) Dattatraya N. Goankar, Ph.D. (IIT, Roorkee) Tukaram Moger, Ph.D. at IISC, Bangalore Parthiban, Ph.D. (IIT, Roorkee) Debashisha Jena, Ph.D. (NIT Rourkela)

Girisha Navada, M.Tech. (University of Calicut)
Karthikeyan, Ph.D. (NIT, Thiruchirapalli)
R Kalpana S, Ph.D. (IIT, New Delhi)
Sheron Figarado, Ph.D. (IISC, Bangalore)
Y Suresh, Ph.D. (NIT Rourkela)
(Contractual)
Krishnan C M C, Ph.D.
(Ghent University, Ghent, Belgium)
(Contractual)

#### School of Management

#### **Professors**

A.H. Sequeira, Ph.D., (Mysore University) K.B.Kiran, Ph.D. (Mangalore Univ.) HOD from 06.9.2016

#### Associate Professors:

Shashikantha K., Ph.D. (University of Hyderabad)

#### **Assistant Professors:**

Bijuna C. Mohan, Ph.D. (NITK, Surathkal)
Rashmi Uchil, Ph.D. (NITK, Surathkal)
Suprabha K. R, Ph.D., (VTU)
Rajesh Acharya H, Ph.D., (University of Hyderabad)
Gopalakrishna B V, Ph.D., (University of Mysore)
S. Pavan Kumar, Ph.D., (IIT Kharagpur)
Sheena,Ph.D., (University of Calicut)
Dhishna P, Ph.D., (University of Pandichery)
Sreejith A, Ph.D. (IIT, New Delhi)
Savita Bhat, Ph.D. (IIT, Bombay)
Pradyot Ranjan Jena, Ph.D. (IIT Kanpur)

Department of Information Technology Professors: Ananthanarayana V.S., Ph.D. (I.I.Sc. Bangalore) G. Ram Mohan Reddy, Ph.D. (Edinburgh, U.K.) HOD from 17.8.2015

#### **Assistant Professors:**

Dinesh Naik, M.Tech. (VTU, Belgaum) Geetha V., Ph.D. (NITK) Biju R. Mohan, Ph.D. NITK Sowmya Kamath S., Ph.D. (NITK) JaidharC D, Ph.D. (NIT, Tiruchirapalli) Nagamma Patil, Ph.D. (IIT, Roorkee)

## Department of Mathematical & Computational Sciences Professors:

A. Kandasamy, Ph.D. (I.I.T. Bombay) Suresh M. Hegde, Ph.D. (Delhi Univ.) Santhosh George, Ph.D. (Goa University) HOD till 16.08.2017 Murulidhar N.N., Ph.D. (I.I.T. Bombay)

#### Associate Professors:

Shyam Srinivas Kamath, Ph.D. (Karnataka Univ.) B.R. Shankar, Ph.D. (I.I.Sc., Bangalore) HOD from 17.08.2017 Sujatha D. Achar, M.Sc. (Karnatak Univ.) R. Madhusudhan., Ph.D. (IIT, Roorkee)

#### **Assistant Professors:**

D. Pushparaj Shetty, Ph.D. (IIT Delhi)
Vivek Sinha, Ph.D (IIT, Bombay)
V. Murugan, Ph.D. (IIT, Madras)
P. Sam Johnson, Ph.D. (Alagappa
University)
Jidesh P., Ph.D. (NITK)
Satyanarayana Engu, Ph.D., (IIT Madras)
Vishwanath Kadaba Puttanna, Ph.D.,
(NITK)
Chandhini G, Ph.D. (IIT, Madras)
Jayaraman, Ph.D. ((IIT, Madras) resigned
from 9.8.2017

Srinivasa Rao Kola, Ph.D. (IIT, Kharagpur) A Senthil Thilak, Ph.D. (NIT, Tiruchirappalli) Kedarnath Senapati, Ph.D. Utkal University (Contractual)

## Department of Mechanical Engineering Professors:

K.K. Appu Kuttan, Ph.D (I.I.T. Madras)

P. Mohanan, Ph.D. (I.I.T. Delhi) retired from 31.10.2017
T.P. Ashok Babu, Ph.D. (I.I.T. Delhi)
G.C. Mohan Kumar, Ph.D. (IIT, Chennai)
H. Suresh Hebbar, Ph.D. (I.I.T. Delhi)
Prasad Krishna, Ph.D., (Univ. of Michigan, Ann Arbor, USA)
Satyabodh M Kulkarni, Ph.D. (I.I.Sc., Bangalore)
Gangadharan K.V., Ph.D. (I.I.T., Madras)
Ravi Kiran Kadoli, Ph.D. (IIT, Madras)
Vijay Desai, M.E. (Ph.D. NITK)
Narendranath S., Ph.D. (IIT, Kharagpur)
HOD from 22.01.2017
Shrikantha, Ph.D. (NITK)

#### Associate professors

Y. Suresh Kumar, M.E. (Mysore Univ.) VRS from 12.2.2018 S.M. Murigendrappa, Ph.D. (I.I.T., Bombay)

#### **Assistant Professors**

Mervin A. Herbert, Ph.D. (I.I.T., Kharagpur)
Vasudeva M., Ph.D. (I.I.T. Bombay)
Guruprasad K.R., Ph.D. (I.I.Sc., Bangalore)
Kumar G.N., Ph.D. (IIT, Delhi)
Shivananda Nayak H., Ph.D. (IIT Roorkee)
Veersetty Gumtapure, Ph.D. (IIT, Madras)
Navin Karanth P., Ph.D. (NITK)
Subhaschandra Kattimani, Ph.D. (IIT, Kharagpur)

Sudhakar Jambagi, M.Tech. (Persuing Ph.D. at IIT Kharagpur) Vijay Kumar H, Ph.D. (IIT, Bombay) resigned from 11.8.2017 Ajay Kumar Yadav, Ph.D. (I.I.T. Kharagpur) D. Chakradhar, Ph.D., (NIT Warangal) resigned from 18.7.2018 Jeyaraj P, Ph.D., (IIT Madras) Hemantha Kumar, Ph.D., (IIT, Madras) Ramesh M.R, Ph.D., (IIT, Roorkee) Sathyabhama A., Ph.D., (NITK) Srikamath Bontha, Ph.D. (Wright State) Arun M, Ph.D. (University of Greenwich, London, UK) Anish S, Ph.D. (IIT, Madras) Mritvunjav R. Doddamani, Ph.D. (NITK, Surathkal) N. Gnanasekaran, Ph.D. (IIT, Madras) Arumuga Perumal D, Ph.D. ((IIT Guwahati) Somasekhara Rao Todeti, Ph.D., (IISc Bangalore) (contractual)

## Department of Mining Engineering Professors:

V. Rama Sastry, Ph.D. (B.H.U. Varanasi) HOD from 22.8.2017 C.H. Suryanarayana Murthy, Ph.D. (IIT Kharagpur) M. Govinda Raj, Ph.D. (Mangalore University) HOD till 21.08.2018

#### Associate Professor:

Harsha Vardhan, Ph.D. (Indian School of Mines Dhanbad)
M. Aruna, Ph.D. (University of Dhanbad)

#### Assistant Professor:

K. Ramachander, Ph.D. (NITK) Anup Kumar Tripathi, Ph.D. (University of Kentucky, Lexington, USA) Ram Prasad Choudhary, Ph.D. (JNU, Jodhpur) on lien to JNU University from 24.11.2017 Bijay Mihir Kunar, Ph.D. (IIT, Kharagpur)

## Department Of Metallurgical & Materials Engineering

#### **Professors:**

K. Rajendra Udupa, Ph.D. (I.I.Sc. Bangalore)

A.O. Surendranathan, Ph.D. (Mangalore University)

K. Narayana Prabhu, Ph.D. (Mangalore Univ.)

Jagannatha Nayak, Ph.D. (NITK)

#### Associate Professor:

Udaya Bhat, Ph.D. (I.I.Sc., Bangalore) HOD till 19.04.2018 Anandan Srinivasan, Ph.D. (I.I.T., Kharagpur) HOD from 20.4.2018 Kumkum Banerjee, Ph.D. (IIT Kharagpur)

#### **Assistant Professor:**

Shashi Bhushan Arya, Ph.D. (IIT, Bombay)
Ravishankar K.S., Ph.D. (NITK)
Mohammad Rizwanur Rahman, Ph.D.,
(Keio University, Japan)
Subray R. Hegde, Ph.D. (University of Canada)
Preetham Kumar G V, Ph.D. (IIT, Madras)
Saumen Mandal, Ph.D. (IIT, Kanpur)

## Department of Physics Professors:

from 27.4.2015 (contractual)

Kasturi V Bangera, Ph.D. (Mangalore Univ.)

H.D. Shashikala Ph.D (Osmania Univ.) Udayashankar N.K., Ph.D. (I.I.Sc. Bangalore)

#### Associate Professor:

M.N. Satyanarayan, Ph.D. (I.I.Sc., Bangalore) HOD from 11.08.2016

Nagaraj H.S., Ph.D. (Mangalore

#### Assistant Professors:

University)
Ajith K. Madam, Ph.D. (University of Hyderabad)
Partha Pratim Das, Ph.D. (University of Cineinnati Elec Engg.)
Deepak Vaid, Ph.D. (USA)

T. K. Shajahan, Ph.D. (IISC, Bangalore) Kartick Tarafder, Ph.D. (Jadavpur University)

#### ADMINISTRATIVE AND OTHER STAFF

#### Registrar:

Ravindranath K., M.A. (Mangalore University)

#### Deputy Registrar (Accounts):

Ram Mohan Y, M.Com. (Mysore), LL.B. (Mangalore University)

#### **Assistant Registrars**

Kamlabh Kumar Singh, (M.Sc., M.S., MBA)
Soumen Karmakar, (MBA)
Bansod Pritam Ramesh, (M.Com, MBA)
Gaurav Chowdhury, (MBA)
Priyanka Dattanand Amadalli, (M.Sc.)
from 15.12.2017

#### Resident Engineer i/c:

Goankar, Ph.D. from 1.9.2015 till 31.8.2017

Sunil B M, Ph.D., from 1.9.2017

Executive Engineer (Electrical) Sri. Mohammad Firoz Khaza from 15.1.2018

#### Resident Medical Officers:

Dr. B. Srimathi, M.B.B.S. (Mysore Univ.)

#### **Medical Officer:**

Dr. M.L. Balabhaskara

#### Professor Incharge Hostel Affairs:

Vasudeva M, Ph.D. till 17.1.2017

A C Hegde, Ph.D. from 18.1.2017

## NITK ENGG. COY N.C.C. Officer Commanding:

Col. MG HS Rajan

## Associated NCC Officer Incharge (ANO):

P Sam Johnson, Ph.D. Shivananda Nayak, Ph.D.

Professor Incharge (Security)

P Sam Johnson, Ph.D. from 23.5.2016 **Security Officer:** 

Manohar Karanth

#### Chief Vigilance Officer:

K Rajendra Udupa, Ph.D. till 16.7.2018 Dr. K C Chandrasekaran, Ph.D. from 17.7.2017

## Central Public Information Officer (CPIO):

K. Ravindranath, Registrar, till 15.3.2018

Soumen Karmakar from 16.3.2018

## OTHER SECTIONS Department of Training & Placement Professor:

Lakshman N, Ph.D. till 30.4.2018 Vijay Desai, Ph.D. from 1.5.2018

## Industry Institute Partnership Cell Professor I/c.:

S M Kulkarni, Ph.D.

#### SC/ST Cell

P E Jagadeesh Babu, Ph.D. from 16.6.2016

#### OBC Cell

P C Deka, Ph.D. 16.2.2018

## Assistant Physical Director (Sr. Scale):

A. Shivaram, M.P.Ed. (Mangalore Univ.) (I/c. Physical Director)

#### SAS Officer:

Hem Prasad Nath, Ph.D. (Nagpur University) Manoj Kumar, Ph.D. (Techno Global University)

#### Librarian:

Mallikarjuna Agadi, Ph.D. (Gulbarga University) from 16.2.2018

#### Asst. Librarian

Anasuya Chakari, M.A. M.Lib.Sc. (Karnataka University) Librarian Incharge

Iranna M Shettar (M.Lisc. M. Phil)

#### Central Computer Centre Chairman / System Manager:

S S Kamath, Ph.D.

#### System Manager

P G Mohanan, M.Tech. (Cochin University)

#### Senior Scientific Officer:

Vijayakumar Ghode, M.Tech.

#### NITK - Science & Technology Entrepreneurs' Park

#### OSD :-

K B Kiran, Ph.D. till 28.1.2018 G Srinikethan, Ph.D. from 29.1.2018

#### R&D Centre on Roofing Tiles

Faculty incharge – Dean (R&C)

### Centre for Continuing Education Chairman

Shrikantha Rao, Ph.D. from 8.7.2016

### Dakshina Kannada Nirmithi Kendra Cordinator:

K.S Babu Narayan, Ph.D.

#### **Project Manager:**

Kalbavi Rajendra Rao, B.E. (Mangalore Univ.)

#### 10.2 NON-ACADEMIC STAFF (NON-TEACHING) as on 31.3.2018

S1.	Name of the	In
No	Posts	Position
		as on 31- 03-2018
1	Registrar	1
2	Librarian	1
3	Dy. Registrar (A/C's)	1
4	Asst. Registrar (Admin)	1
5	Asst.Registrar (Accounts)	1
6	Asst.Registrar (Academic)	2
7	Asst.Registrar (Purchase)	1
8	Assistant Librarian	2
9	SAS Officer	2
10	Senior Scientific Officer	1
11	Medical Officer	2
12	Security Officer	1
13	Executive Engineer	1
14	Senior Superintendent	1
15	Superintendent	2
16	Senior Secretary	1
17	Assistant (SG -1)	7
18	Assistant (SG –II)	1
19	Senior Assistant	27
20	Junior Assistant	15
21	Stenographer (SG - II)	3
22	Senior Stenographer	1
23	Assistant Engineer (SG-1)	2

	Total	166
35	Attendant	30
34	Senior Attendant	5
33	Work Assistant	3
32	Techician	2
31	Senior Work Assistant	1
30	Senior Technician	7
29	Technicain (SG-II)	3
28	Technical Assistant (SG-II)	1
27	Technical Assistant	4
26	Assistant Engineer	12
25	Senior Technical Assistant	6
24	Assistant Engineer (SG-II)	15

#### 11.0 FACILITIES/AMENITIES

#### 11.1 Hostels

The Institute reopened on 26-07-2017 for under-graduate and Post- graduate s per Academic Calendar for the year 2017-2018. All the students including foreign students are accommodated in the hostels as per the following details:

Total number of boys hostel = 11
Total number of girls hostel = 05
Total number of Rooms for boys = 2674
Total number of rooms for girls = 784

Block	No. of	No. of		
	Students	Rooms		
1st Block	228	84		
2 <sup>nd</sup> Block	231	84		
3rd Block	260	132		
4th Block	251	132		
5 <sup>th</sup> Block	248	256		
PG Block	422	150		
7 <sup>th</sup> Block	357	162		
8th Block	201	162		
Mega Tower 1	498	504		
Mega Tower 2	490	504		
Mega Tower 3	502	504		
GH 1st Block	68	34		
GH 3 <sup>rd</sup> Block	452	153		
GH 4th Block	275	323		
GH 5th Block	258	258		
MS Block	52	16		
Total	4793 (B-3688, G-1105)	3548		

There are 10 messes operating in various hostel blocks to cater the needs of inmates. Out of which one vegetarian and one non vegetarian messes are running in girl's hostel and 6 vegetarian messes and two non-veg messes are running in boy's hostel. All the messes are provided with necessary infrastructure to cater to the different food habits of the students drawn from various parts of the country.

#### Total number of messes

Name of the Mess	Strength
I Block Mess	285
II Block Mess	404
IV Block Mess (Non Veg-	
Out Source)	513
V Block Mess (Non Veg-	
Out Source)	440
PG Block Mess (Out	
Source)	316
VII Block Mess	264
VIII Block Mess (Out	
Source)	502
Mega Block Mess (Out	
Source)	648
GH I block Mess ,Ground	
Floor (Out Source)	494
GH II block Mess, First	
Floor (Out Source)	483

The messes are managed by the active participation of the Student mess managers in preparation of the menu and other issues related to the management of the messes. Monthly mess bill accounts were audited by verifying the mess cards, stock sheets, cash and credit guest registers, purchase registers, mess membership issue register, mess bill calculation registers, petty cash book with vouchers and other records connected

with monthly mess bill. Rationalization method was adopted to avoid the rate difference problem of various messes

Total mess membership varies in every month. Out of the 10 messes IV Block mess, V block mess, VIII block mess, PG block mess, Mega Hostel Mess and Girls hostel messes are managed by the contractors.

#### **Reading Room Committee**

Reading room in the Hostel is managed by a separate elected students committee. The reading room committee organized CRRESCNDO 2017-18 during March 23-25, 2018 in a grand manner.

#### **Recreation committee**

The Recreation Committee constituted by election, looks after the sports activities of the residents of the hostels and provides indoor game facilities. The recreation committee organized Fresher's Cup, flood lights Tournament, Inter Branch Tournament, Phoenix tournaments during October 2017-April 2018.

Overall Reading Room and Recreation committee have done their job in a commendable manner. The Cable TV facility existing in the campus has been extended to all the hostels. All the Hostel Rooms (Boys and Girls) have connected with Internet facilities.

#### **Mess Concession**

Mess Concession is offered to students (Hostellers), who need financial assistance to continue their studies in the Institute during ODD and Even semester. The fund raised bv contribution from the hostellers i.e `10/per semester along with hostel mess fees. The concessions are granted based on information furnished individual applicants in the prescribed applications, which if found to be incorrect, at a later date would be cancelled and withdrawn retrospectively. The mess concession grantee must be regular in attendance and show improvements in his academic performance. The amount granted above will be credited to the mess bill account of the respective student by means of adjustment entry and will not be paid by cash.

Several festivals like Holi, Diwali and Ganesh Chaturthi celebrated by hostellers, through the fund is raised by contribution i.e `40/- from the hostellers. New Year- 2018 is first time celebrated by the students in this academic year.

During the Hostel day celebration various sports and games are conducting for mess workers. Best Kept Room for Hostellers and Best Kept Mess is also awarded on this occasion.

During the year under report, Medical Relief to the tune of Rs. 1,30,687/- has been sanctioned to students of the hostel blocks as per the recommendation of the Block Warden and Institute Resident Medical Officers, for their hospitalization in nearby Surathkal/Mangalore hospitals for treatment. This amount is met out of the fund created under "Self Sustaining Medicare Scheme" which is created by collecting Rs.35/- per student per semester.

Students advisory Committee is formed in each block for effective- interaction between the Wardens and students. To improve the accounting process, accounts computerization of have already been initiated. To receive feedbacks related to messes online feedback system is initiated. maintenance related issues an online room condition form and online system complaint registration is initiated. All the accounts of the hostels dulv audited by a Charted Accountant.

Prof. A. Chitharanjan Hegde is working as a Professor in-charge Hostel Affairs NITK Hostels.

Presently, the following faculty members are rendering their services as wardens in different Hostel Blocks as mentioned against their names:

Harsha Vardhan, Ph.D.	Warden (Finance)
Vasudeva M, Ph.D.	Warden (Finance)
S Pavan Kumar,	Warden, I Hostel
Ph.D.	Block
Kartick	Warden, II Hostel
Tarafder, Ph.D.	Block
C. Rajasekaran,	Warden, III Hostel
Ph.D.	Block
Subhaschandra	Warden, IV Hostel
Kattimani,	Block
Sharanappa Joladarashi, Ph.D.	Warden, V Hostel Block
Debabrata Karmakar, Ph.D.	Warden, PG Hostel Block
Satyanarayana	Warden, PG Hostel
Engu, Ph.D.	Block
Saumen	Warden, VII Hostel
Mondal, Ph.D.	Block
Pushparaj	Warden, VIII Hostel
Shetty D, Ph.D.	Block
V Murugan,	Warden, VIII Hostel
Ph.D.	Block
Debashisha	Warden, Mega
Jena, Ph.D.	Hostel Tower II
Shashidhar G Koolagudi, Ph.D.	Warden, Mega Hostel Tower II
Shashibhushan	Warden, Mega
Arya, Ph.D.	Hostel Tower III
Darshak R	Warden, Mega
Trivedi, Ph.D.	Hostel Tower III

Raviraj H	Warden, Mega			
Mulangi, Ph.D.	Hostel Tower I			
Mrityunjay	Warden, Mega			
Doddamani,	Hostel Tower I			
Ph.D.				
(Mrs) C.P.	Warden, Girls			
Devatha, Ph.D.	Hostel IV Block			
(7.5.)				
(Mrs.) A	Warden, Girls			
Sathyabhama,	Hostel I & II Block			
Ph.D.				
Dr. (Mrs.)	Warden, Girls			
Suprabha K. R.	Hostel III Block			
Dr. (Mrs.) Savita	Worden Cirls			
` '	Warden, Girls			
Bhat	Hostel III Block			
Dr. Paresh	Warden, Mess			
Chandra Deka	Quality Control			
Bibhuti Bhusan	Warden,			
Das	Maintenance			

Prof. Dr. Karanam Uma Maheshwar Rao, Director is Ex-officio President of NITKS Hostels. He being the President For hostels will be giving guidance to the Council of Wardens time to time for the smooth administration and functioning of the hostel activities

#### The mess bill for the academic year 2017-18 shown in Table 1:

#### Table 1 MESS BILL DETAILS FROM JULY 2017 TO APRIL 2018

	Table 1 MESS BILL DETAILS FROM JULY 2017 TO APRIL 2016								
						Ionth			
Sl.		July-August 2017		September 2017		October 2017		Nov to Dec. 2017	
No.	Mess	Per month	Per day	Per month	Per day	Per month	Per day	Per month	Per day
1	I BLOCK (MII)	3505.00	109.53	3251.00	108.37	3341.00	107.77	3419.00	110.29
2	II BLOCK (SB)	3505.00	109.53	3251.00	108.37	3341.00	107.77	3419.00	110.29
3	III BLOCK (MI)	4272.00	109.53	3251.00	108.37	3341.00	107.77	3419.00	110.29
4	IV BLOCK (N.V.)(OS)	4272.00	109.53	3251.00	108.37	3341.00	107.77	3419.00	110.29
5	V BLOCK (BI) (OS)	4272.00	109.53	3251.00	108.37	3341.00	107.77	3419.00	110.29
6	VII BLOCK (BII)	4272.00	109.53	3251.00	108.37	3341.00	107.77	3419.00	110.29
7	VIII BLOCK (OS)	4272.00	109.53	3251.00	108.37	3341.00	107.77	3419.00	110.29
8	P.G BLOCK (OS)	4272.00	109.53	3251.00	108.37	3341.00	107.77	3419.00	110.29
9	MEGA BLOCK (OS)	4272.00	109.53	3251.00	108.37	3341.00	107.77	3419.00	110.29
10	G.H BLOCK MESS I (OS)	4272.00	109.53	3251.00	108.37	3341.00	107.77	3419.00	110.29
11	G.H BLOCK MESS II (OS)	4272.00	109.53	3251.00	108.37	3341.00	107.77	3419.00	110.29
			l	M	onth		L		
G1		Januar	y 2018	Februar	y 2018	March 2018		April –May 2018	
Sl. No.	Mess	Per month	Per day	Per month	Per day	Per month	Per day	Per month	Per day
1	I BLOCK (MII)	3810.00	102.97	2860.00	102.14	3084.00	99.48	2575.00	99.04
2	II BLOCK (SB)	3810.00	102.97	2860.00	102.14	3084.00	99.48	2575.00	99.04
3	IV BLOCK (N.V.)(OS)	3810.00	102.97	2860.00	102.14	3084.00	99.48	3268.00	99.03
4	V BLOCK (BI) (OS)	3810.00	102.97	2860.00	102.14	3084.00	99.48	3268.00	99.03
5	VII BLOCK (BII)	3810.00	102.97	2860.00	102.14	3084.00	99.48	3268.00	99.03
6	VIII BLOCK (OS)	3810.00	102.97	2860.00	102.14	3084.00	99.48	3268.00	99.03
7	P.G BLOCK (OS)	3810.00	102.97	2860.00	102.14	3084.00	99.48	3466.00	99.03
8	MEGA BLOCK (OS)	3810.00	102.97	2860.00	102.14	3084.00	99.48	3268.00	99.03
9	G.H BLOCK MESS I (OS)	3810.00	102.97	2860.00	102.14	3084.00	99.48	3268.00	99.03
10	G.H BLOCK MESS II (OS)	3810.00	102.97	2860.00	102.14	3084.00	99.48	3268.00	99.03

#### 11.2 CENTRAL COMPUTER

CCC has contributed in designing, building and maintaining an IT infrastructure for the Institute adequate to the academic needs, by providing quality IT services to support teaching, learning, research innovations. **CCC** maintains the network backbone campus connectivity and internet connections on 24x7 basis. The CCC occupies the building opposite to the Silver Jubilee Auditorium. CCC was established in 1995 as а service providing/supporting facility that augments to the computing facilities in the teaching departments.

CCC is currently headed by Dr Shyam S Kamath (Dept of MACS). CCC has permanent following the associated to it. One Systems Manager, One Senior Scientific Officer, One Assistant Engineer (SG1), Two Engineers (SG2), Assistant Assistant Engineers, One Technician (SGII) and One Junior Assistant. CCC also has an Office Clerk, 2 Helpers, One Sweeper and One House Keeper working on contract basis.

Chairman, CCC seeks the guidance of the CCA Committee in important decisions.

NITK has a Campus wide LAN reaching academic buildings, residences and hostel rooms through wired and wireless networks. The campus backbone services are provided with about 20 kms of 12 core OFC using 1 Gbps and 10 Gbps backbone to the different buildings and broad band to residences. Departments, Residences (through the broadband), Directorate (and administrative net), Guest houses and Hostels are core individually connected to the switch.The hostel networks are integrated into the academic network NITK Internet of sharing the bandwidth of the Institute.

The first stage of the campus network was done in 1999 and the second stage of expansion was done in 2006 with

the TEQIP funds. The Third Stage including Core Network Expansion and the Campus WiFi is completed in 2016 at a total cost of about Rs 6.78 crores.The expanded network including the Core Switches, Firewall, Backbone switches and the Campus Wi-Fi equipments are under warranty and maintenance of BSNL for 5 years. The Wi-Fi network is provided as an extension of the wired networks in the buildings. different The expansion is carried out with 744 Ruckus R500 Indoor access points, 40 Ruckus T300 Outdoor access points, 5 Ruckus H500 wall switches, Netgear 24 port 10/100/1000Mbps PoE switch with 4 SFP ports and other and passive active network components.

All bonafide Universitites of the nation are being given OFC based 1Gbps connectivity to NKN-PoP (National Knowledge Network Point of Presence) under NME-ICT (National Mission on Education through ICT). This includes University level institutions and NITK is one among them. On 26-08-2010, the network switches of NITK were reconfigured for commissioning the 1 Gbps line that has come to NITK Surathkal under this scheme. From 27--8--2010 onwards, this line is in use by the academic area and also the hostels. However, from 03--04--2012 onwards, this line has become a part of the National Knowledge Network which is designed to support advanced applications in areas such as Health. Education, Science & Technology, Bioinformatics, Grid Computing, Agriculture, and Governance. For General purpose Internet access, the available bandwidth was inadequate for a community of about 7000+ heavy users including the faculty, students and staff. In order to meet the demands of the users, an additional bandwidth of 1 Gbps is procured from BSNL at an annual cost of Rs 82.46 lakhs.

The NITK Data centre housed in the CCC Ground Floor acts as an integration hub of OFC/backbone. It houses Internet connections to BSNL & NKN, associated networking

equipments and sufficient hardware to handle the critical backbone network services.

Data Centre is upgraded with the following equipments

- Virtual Cluster Switch: This consists of two Brocade VDX 8770-8 (each with 48x 10G SFP+, 48 x 10G copper and 12x 40G QSFP) and one Brocade VDX 6740T-56-1G-F server farm switch
- 23 Nos. of Brocade ICX7250-48-2X10G and 8 Nos. of Brocade ICX7250-24-2X10G as building backbones with 10G uplinks to the core switch
- Two Nos. of Sophos XG750 firewalls in HA mode with VPN facility.
- Campus Wi-Fi Controller- Ruckus SmartZone 100

Main servers are connected to the data centre network. Critical services are accessible from inside and outside the network. CCC Uses Virtualisation with Blade Servers with VMWare, Dell Servers with Proxmox virtualisation environment/Ubuntu System containerisation environment.

NITK Website updations are entrusted with the CCC apart from the webserver maintenance. The domains of NITK (nitk.ac.in and nitk.edu.in) are also controlled by CCC.

CCC hosts the MatLAB license server for the entire Campus Network.

Apart from these, the Ground Floor of CCC houses (i) The HPC cluster being installed and commissioned and (ii) The 150 Node Skill Development Centre established by the NITK Alumnii. The first floor hall of CCC with about 90 Desktop computers is available for general purpose computing & browsing. The computers of CCC are used to support First year Computational Practice Labs, General Purpose Learning & Internet access, On-Line tests (Training & Placement) & Various co-curricular and other student activities.

The network infrastructure facility management of NITK is outsourced. Comprehensive onsite AMC is available for the Network switches. There is a helpdesk number 0824 2473085. There is also a rate contract with the firm to facilitate any immediate need of network alterations within a limit. The process of identifying the Facility Manager is underway.

The facility has a 200KVA Diesel generator that was established in 1994 and two 20KVA and one 15 KVA online UPS systems procured later for providing backup power during the changeover. Two 15 KVA UPS systems provide the power backup to the CCC LAN. This is being reassessed to accommodate the needs of the HPC Cluster, Skill Developed Centre and the New devices of the Data Centre.

#### Infrastructure Development

- Expansion to the Network and Campus WiFi is completed in 2016 at a total cost of about Rs 6.78 crores.
- The Wi-Fi network is provided as an extension of the wired networks in the different buildings. The WiFi expansion is carried out with 744 Ruckus R500 Indoor access points, 40 Ruckus T300 Outdoor access points, 5 Ruckus H500 wall switches, 89 Netgear 24 port 10/100/1000Mbps PoE switch with 4 SFP ports and other and passive network active components.
- For General purpose Internet access, to meet the demands of the users, an additional bandwidth of 1 Gbps is procured from BSNL at an annual cost of Rs 82.46 lakhs.
- Data Centre is upgraded with the following equipments
- a) Virtual Cluster Switch: This consists of two Brocade VDX 8770-8 (each with 48x 10G SFP+, 48 x 10G copper and

12x 40G QSFP) and one Brocade VDX 6740T-56-1G-F server farm switch

- b) 2X10G and 8 Nos. of Brocade ICX7250-24-2X10G as building backbones with 10G uplinks to the core switch
- c) Two Nos. of Sophos XG750 firewalls in HA mode with VPN Facility.
- d) Campus Wi-Fi Controller Ruckus SmartZone 100

The expanded network including the Core Switches, Firewall, Backbone switches and the Campus Wi-Fi equipments are under warranty and maintenance of BSNL for 5 years. An HPC cluster is installed in the CCC Premises. This is connected to the core network and available to the entire Campus Network.

# Notable Achievements during the year

- Upgading the Academic Backbone to 10Gbps
- Expanding the Campus WiFi and Upgraded Core Network
- Establishing the HPC Cluster
- Webservers Procurement
- Zimbra based Email services (@nitk.ac.in)
- Upgrading the servers

# Additions to the Building Infrastructure

- Expansion of the area of the Data Centre and relocation of Precision ACs for the Data Centre
- ii. All UPS s moved to a single location to make the maintenance easier
- iii. Re organisation of the First Floor Lab
- iv. Reassessment and Improvement on the Power Backup and Air conditioning.

# List of Laboratories in the Department

- 1. CCC LAN with 90 Desktops
- 2. Skill Development Centre with 150 Thin clients supported by a Server for Virtual Desktop
- 3. HPC Cluster made available to all
- 4. General Purpose Servers in the Data

Centre and Virtual Servers on demand.

#### 11.3 LIBRARY

The Institute has a modern Central and continues to offer automated library services to its clientele. This Library functions as an important and vital component of the information Institute systems. Located centrally in the main building area of the Campus and it can accommodate more than 500 students/users at. а time. The collection of is books 1,34,290 including Book-Bank books, online e-Books subscribes 249 print journals for all the disciplines. We have access to 8000 plus online Journals through INDEST. This year we have purchased 410 online full text journals from Taylor & Francis Database Vendors. The total area is 2758.56 sq.meters including the extended floors as an additional space for reading hall. The Central Library has received "Highest User Award for IEL online (IEE Explore)" in 2014 amongst INDEST-AICTE Consortium Level 2 member's category

Library space and ambience, timings and usage, availability of a qualified librarian and other staff, library automation, online access, networking, etc.

Carpet area of library (in m2)	2758.56sqm.
Reading space (in m2)	1800
Number of seats in reading space	500
Number of users (issue book ) per day	600
Number of users (reading space) per day	1000

National Institute of Technology Karnataka, Surathkal

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	Timings: During	Monday to Saturday
	working day,	8.00 a.m. to 12.00
	weekend, and	midnight
	vacaton	Sunday: 8.00 a.m.to
		4.00 p.m.
		General Holidays:
		9.00 a.m. to 12.00
		noon and vacation
		8.45 a.m. to 5.30
		p.m.
ŀ	Number of	14
		14
ŀ	library staff	3
	Number of	3
	library staff with	
	degree in	
ŀ	Library  Management	YES
	Computerization	IES
	for search,	
	indexing,	
	issue/return	
	records Bar	
	coding used	
- 1	county useu	

#### 1. Genesis and Growth:

NITK Central Library established in the year 1960 is provided with modern facilities and offers automated library services to its clientele comprising of about 6000 users namely undergraduate and postgraduate students, research scholars, faculty members and supporting staff various departments of the institute. NITK library also gives the facility of institution membership to educational institutes and industries located in and around Mangalore. This Library is located in an independent building with a carpet area of 2759 sq meters in the centre of the Campus and it can more 500 accommodate than students/users at a time. At present, the library has a collection of around 1,34,290 books besides subscribing to around 249 National and International Print Journals.

#### 2. Infrastructure:

The Central Library has Wi-Fi connectivity with more 25 personal computers in Digital Library section. The Library day-to-day operations are automated and issue and return of all

the books are done through computers. The computer terminals provided at the counter near entrance and can be used to gain information regarding status of any document and particulars other of book/collection. The Library activities have been computerized using the LIBSYS software. A bar coded system of issue and returning books is currently in use.

### 3. Library Automation Programme:

The Library Automation Programme is completed. The details of books available in this Library are stored in The information the computer. about the document can be retrieved in the Library. User can search the book by Author, Title, and Call Nos. or by part of the title and subject. Circulation of books is computerized and circulation is done by BARCODE System. LIBSYS Library Automation software was introduced in October 1998. At present 12 terminals are on use for Students and Staff. To access the information, we are using Libsys Version 7. Up-to-date information about Books, Periodicals, and Back Volumes of periodicals are available on OPAC in the computer. computers are under LAN System.

### 4. On-line Services:

Library is a member of "Indian National Digital Library in Science and Technology (INDEST)". It provides full text resources like IEL online, Science Direct, Springer Verlag, Nature, Indian Standards of all branches of Engineering, Engineering index etc.

Member of DELNET (Developing Library Network). It provides resource sharing among member libraries and inter library loan facility.

Library is a member of NIT - Consortium. It subscribes full text resources of Science Direct, IEL

National Institute of Technology Karnataka, Surathkal online, Springer Verlag, ACM, ASTM Journals, Taylor & Francis, etc. e-journals.

#### 5. Digital Library:

A separate "Digital Library" unit has been established under funding from TEQIP Phase-I with resources being shared with other NIT's, IIT's and industries. The Digital Library is exclusively used for the online access of E-Journals and other E-Resources provided by the Indian National Digital Library in Engineering Science and Technology Consortium (INDEST-AICTE consortium).

# Some of the services available in the Digital Library are:

- Collection and Development of Library materials in Digital Form.
- On-line search for books using on-line public access catalogue (OPAC).
- ❖ On-line Electronic Journal Access through INDEST consortium.
- CD ROM server with reference materials like Encyclopedias, Engineering Index, Hand books.
- ❖ Technical reports of Bureau of Indian Standard (BIS) in Digital Form.
- ❖ E-printing of Research publications of the Institute.
- Online Access (LINKS) to other Libraries (IITs NITs DELNET, etc.).
- Suitable infrastructures to use the digital sources of information.
- ❖ INTRANET and INTERNET Service
- ❖ Online eBooks

#### 6. Book-Bank:

General Book-Bank for all students consists of multiple copies of textbooks. The books are lent to all students for home reading for 30 days. Every year multiple copies are added to the Book-Bank. In addition to this, there is a separate Book-Bank facility for SC/ST students also. There are 30,049 books available in all branches in Book-Banks of this Library. Automation of Book-Bank book is completed and the circulation of books is being done by using BARCODE System.

Special collection for SC/ST students - Students can borrow up to 5 books from Book-Bank for a period of one semester. The Library issues a circular in the beginning of every semester and the eligible students may apply to avail as per the schedule announced by the Library.

# The following facilities have already been introduced in the Library:

- Library Automation Programme
- CD-ROM and Online Service
- Reprographic Units
- Digital Library
- Book-Bank
- Networking of Library Services
- Link other libraries (NIT, IIT libraries)
- Member of DELNET and INDEST
- Internet Services

### **Borrowing Privileges and Renewal:**

User Types	Items	Period of loan
Teaching Faculty	15	1
	books	semester
Research	5	1
Scholars	books	semester
UG/PG students	6	15 days
	books	
Supporting Staff	4	30 days
	books	
Industries	5	30 days
	books	

Books may be renewed for further period provided no other reader has reserved for the book. The renewal request should come, before the expiry of due date. No more than three consecutive renewals shall be allowed. Librarian in the interest of the library service can demand the return of any library materials from any user before expiring the due date. Students have to return the books on or before the due date. A fine of Rs.0.50 per book per day will be levied, if the books are not returned within the expiry date.

### Services provided by the Library:

- Open Access System
- New arrivals list
- News paper clipping display

- Selective dissemination of information and current awareness service (SDI and CAS)
  - Book-Bank facility
  - Digital Library
  - Inter library loan of books
  - Reprographic services
  - On-line public access catalogues
  - CD-Rom data base access
  - Compilation of bibliography on selected topics
  - Practical and Apprenticeship training for diploma and degree student of Library and Information Science
  - On-Line information retrieval through DELNET
  - E-journals through INDEST Consortium.

#### Other Activities:

For fresher of U.G. and P.G. courses, Library conducted orientation classes in the beginning of the academic year.

The Library is publishing list of "New Arrivals" Bimonthly & sending the same to all Faculty members through e-mail.

The Library provides practical training to the Diploma students of Library Science from the Government Polytechnic for Women, Mangalore and Apprentice Training programme is also conducted.

Library is also providing the SDI Service (Selective Dissemination of Information) on the various on-going Research Projects sponsored by the NITK, D.S.T., C.S.I.R. and other Research Organization etc. Under-Graduates, Post-Graduates and Research Scholars are also making use of these services for their project works. Seminars and Information Retrieval Services by using Computer.

Services to Industries, Educational Institutions, Government, Establishme nts, the neighboring Govt. Departments, Educational Institutions and Industries are using this Library services quite often.

Membership fee of Rs.10.000/- (5 cards) introduced to the industries and several industries are members to this Library.

The Library has an Inter Library Loan facility with leading Institutions and G.O.I. Establishment.

Member of National Information Center for Machine Tools and Production Engineering (NICMAP), CMTI, Bangalore.

The Central Library is a member of "Indian National Digital Library in Science and Technology" (INDEST). It provides full text resource like IEL online, Science Direct, Springer Link, Indian Standards of all branches of Engineering, Engineering index etc.

The Central Library is a member of NIT-Consortium. It subscribes full text resources of Taylor & Francis e-journals.

#### **Research Publications:**

# Dr. Mallikarjun Angadi, Librarian Conference (International)

Sanjeev K Sunny and Mallikarjun Angadi, Potential Roles and Applications of in Thesauri in Digital Information Retrieval Systems, Proceedings of the IEEE International Symposium on Emerging Trends and Technologies in Libraries and Information Services, Bennett University, Noida, 21-23 February, 2018 p.24-27

### Mr. Iranna M. Shettar, Assistant Librarian

#### Conference (National)

Iranna M. Shettar, Quick Response (QR) Codes in Libraries: Case study on the use of QR codes in the Central Library, NITK, National Conference on "PROFESSIONALISM IN LIBRARY AND INFORMATION SERVICES FOR USER EMPOWERMENT: OPPORTUNITIES AND CHALLENGES" (PROFUSE 2017) At: Mangalore University, Mangalore, April 27 - 28, 2017, pp. 144-151

National Institute of Technology Karnataka, Surathkal

#### **Conference (International)**

Iranna M. Shettar; Dhanukumar Curtailing Pattanashetti the Challenges Faced in Digital Society: A Success Story of Library Collaboration Publisher Promoting Electronic Resources, 2017: International ICoASL Conference of Asian Special Libraries Sunan Kalijaga 2017 at UIN Yogyakarta Indonesia, 10-12 May 2017, pp. 477–483.

#### 11.4 LABORATORIES

# DEPARTMENT OF APPLIED MECHANICS AND HYDRAULICS

**Hydraulics Laboratory:-** Flow Measuring Units Pumps, Water meters, Calibration Devices Hydraulic Machines, Pressure Gauges

Valves, Tilting flume, Pipe bursting unit Ultrasound flow meter, Basic Hydrology Unit

#### **Strength of Materials Laboratory:**

U.T.M 5 T, 40 T, 100 T, 200 T (Electronic), Hardness Testing M/c, - Torsion Testing M/c

Marine - Geotechnical Laboratory :Triaxial Apparatus, Marine Soil Investigation, Consolidation Apparatus, Direct Shear Apparatus, Photo Elastic Bench, Corrosion Measurement Voltage system

Wave Mechanics Laboratory :-Regular Wave Flume [50 X 0.71 X 1.1 m] – 2 No.s, Digital Storage Oscilloscope with software, Wave probe with software, Total station Hydraulic measurement **Laboratory:-** Ultrasonic Testing Kit, Pen Type pH meter, TDS meter, Balance, Electronic Conductivity meter, Turbidity meter, Spectrophotometer.

### Remote Sensing & GIS Laboratory:

Computer systems: 20 No.s, Printer, scanner Procom –II, Stereoscopes, Ground truth Radiometer, Digital Planimeters, Aerial & Satellite

Photographs, ARCPAD GPS, Garmen GPS Softwares: ERDAS- Imagine, PC ARCINFO Master Lab. Kit, Geomedia Professional. Ground water Modelling Software, Water Management Softwar Bentley Water Gems ENVI 5.4 software Distance measurement equipment

### **Computer Laboratory:**

- Computer systems: 15 No.s
- Mike 21 software
- Scanner, Laser printer
- SVSS Software

# DEPARTMENT OF CHEMICAL ENGINEERING:-

Testing Lab: Digital pH meter, Vacuum free portable, pump 0il Flame Photometer, Tinto meter, Turbid meter, Vacuum oven, Hot air oven 3'x3'x2', C.O.D. Digester - Hach, Brook Field Viscometer, Distillation Unit Automatic Cabinet water still, Flue Gas Gas Chromatograph, Analyser, Trinocular microscope cipra, Balance electronic, Bomb calorimeter. Conductivity Spectro meter, photometer, B.O.D. incubator, C.O.D. Digestion apparatus, Laminar flow chamber, Noise Level Meter, Hach Sension 156 (pH, D.O., Conductivity), Sension 156 (pH, YSI Conductivity), EutechSension 156 (pH, D.O., Conductivity), Multi parametar (Hach Tifac), Water Purification ultra **SYS** 

**Project Lab I:** Refrigerated Centrifuge, Digital pH meter, Rotary shaker –Lead, Ultra Sonic water Bath, Quartz Immersion well Reactor, Muffle furnace Digital, Peristaltic pump Ultra, Ultrasonic Sonicator, Electro Spinning equipment, UV Ozone Cleaner, Online UPS 5KVA

**PROJECT I A:** Continuous homogeniser & homogeniser, Ultra Sonicator, Dosage Pump

Mass Transfer Lab: Balance - triple beam, Electric oven - with forced air

National Institute of Technology Karnataka, Surathkal supply, Vacuum pump 0il free portable, Orbital Shaker ISK 300, Autoclave (vertical), Microwave Oven Sum sung, Rivoteck centrifuge, Micro wave Ashing System Qash 1800, Balance – electronic, Peristaltic pump, Rotary flash evaporator, Dust Track Sampler, Microwave Assisted Pyrolytic Reactor, Solar Simulator.

Constant temperature bath, Gas flow meter - wet type, Pump - centrifugal -2", Rotary shaker, Refracted heating bath, Eppendorf Centrifuge, Particle size analyser, Thermo Spectro, Low speed stirrer - Remi, Rotatory Vaccum, Gel Document, Nono Particle Analyser

**Project Lab II:** Bench Top Fermentor, Horizontal laminar flow work station, Gel document, Refracted heating bath, Thermo spectro photo meter, Eppendorf centrifuge, Particle Size Analyser

**COMPUTER LAB:** Hot Air Oven, Pressure gauge tester, Microscope High Pressure Camera, high temperature gas liquid phase, Incubator shaker Lead, Fire extinguisher CO2, Microprocessor trainer, BOD Incubator, Air Pre heater, Pyrolytic Reactor

**Project** Lab III: Deep Freezer, Programme Temperature Control Dryer, Centrifuge, System, Freez Hitachi spec Uv solid sampler attached to Hitachi, Minispin centrifuge, Micro scope, Analytical Weighing Balance Wensar, Eppendroff centrifuge

HEAT TRANSFER LAB: Air compressor - TS07120HN / 220lit, Pump - vacuum - rotary vane type, Eddy current drive with motor & accessories, PM 2.5 Fine Dust Sampler, Hydraulic compression testing machine, Reducing valve, Jacketed vessels, High volume sampler, ENVOIR TECH 460 BL, Portable gas sampler, Plate heat exchanger, Stack monitoring kit, Fluidized Bed Combustor (IIT Madras), Deep Freezer.

**PROJECT LAB IV**: Electric oven - with forced air supply, Ultra Sonic water bath, Auto clave with Teflon liner, Balance - electronic Shimadzu, RCT

Basic safety Control Magnetic stirrer, Stirred Cell Membrane Unit, U V Irradiated membrane filtration Unit.

**PROJECT LAB V DG ROOM:** Flash point apparatus, Viscometer - (Redwood & say bolt), Eddy current drive with motor & accessories, Ozone Generator-L4g, Conductivity Meter - Matrix, Jacketed vessels, Generator - 10 KVA, Ozone Monitor/TLA

**BIOTECH LAB:** Laboratory Centrifuge, Digital pH meter, Electric oven - with forced air supply, Digital Refractometer RX5000 (S/N 107209), Orbital shaker Hi-Anaerobic Scigenics, system, Autoclave (vertical), Compound Microscope, Do Probe & Do Oven-Transmitter, Microwave Samsung, Lyophilizer, Gel Electrophoresis, Contuious Homogenizer & Homogenizer (ultra), Lab Bioreactor with variable Volume Fixtures, Brook Field Viscometer, Tangentail Flow Filtration with ultra Filtration Module, Temp Controlled Digital Density Meter, Static Mixture, Balance - electronic Essae treroka, Spectro photometer ,Labomed, Incubator - shaker, Horizontal laminar flow work station, Vibracell ultrasonic processor, Electronic balance(model BT 2202S, BT 224S), Vacum pressure cum kit, Nano drop spectrophotometer, Vortex Mixture, Water Purification ultra SYS, RCT Basic safety Control Magnetic stirrer, Cryostat bath, Karl fischer Refrigerator whirl titrator. Analytical Weighing Balance Wensar.

PROJECT LAB V: Air compressor - SC-150, Elgi Centrifuge, Digital pH meter Cyber scan Tutor-Ds, Electric oven, Furnace - muffle - rectangular, Turbidimeter, Eppendorf Centrifuge, Refrigrirated Heating Bath Circulator, Surface tensio meter, Dosing Pump with Pump Head, Membrance testing System, Refrigerated Water Bath with circulating pump, Rotary high vacuum pump, Reducing valve, Peristaltic pump, Conductivity meter - Eutech, Low speed stirrer - Remi, Incubator -

National Institute of Technology Karnataka, Surathkal shaker Lead, Bead Mill, Vortex Mixer, Distillation Unit, rotating disc counter, Continuous membrane filtration unit, Ice Flaker.

**DST - FIST LABORATORY:** GEL Documentation, TG-DTA 6300(Thermo gravimetric Analyser, HPLC, ELS II Detector HPLC, LC -MS Systems & Accessories, ICP -OES, FPLC System

**FERMENTATION** LAB Colony Counter, Hot Air Oven, Orbital shaker scigenics, Autoclave (vertical), Co2 Incubator, Microwave Oven-LG, Axiva mini centrifuge, Microwave Digestion System, Fermenter - Bioferm, Muffle furnace with programmable Temp Controller, Trinocular microscope -Incubator Metzer, shaker Biochem, High speed cooling centrifuge - Remi, Freeze dryer DC55A, Fraction collector automatic, Incubator Bacteriological (IPC), Deep freezer +( 1 No Stabilizer), Muffle furnace, Low speed centrifuge 5ml/15ml, C.O.D Analyser, Peatle & Motor, Pellet Press, Slow Speed Cutting Machine, Eureka Forbes Vacuum Cleaner, conductivity source meter.

LAB: **ADVANCE** Electrochemical Workstation, cell, C-Electrode, Gel Electrophoresis, Bio Sensor, Protean Tetra cell, Trinocular microscope tifac, Balance - electronic, Spectro photometer - Labomed &1 systronics, Total organic analyser, Graphite furnace and hydride generator, Milli Q Academic water purifier, GBC AAS, Electrophoresis, Performance High liquid Chromatograph, Gas chromotographyspectrophotometer, Mass Ion Chromotography, High speed refrigerated cooling centrifuge

Immunology Lab: Micro Centrifug+B302+B304:B+B304:B321, Electric oven - with forced air supply, Co2 Incubator, Micro wave oven, Plate Master TM Speed Plating, Ultra Sonic water Bath, Biological Safety Cabinet, Trinocular microscope Gangamma, Balance - electronic sami micro, Deep freezer + (1 No Stabilizer), Dry bath With

Heating Block, UV Trans illuminator, High speed refrigerated cooling centrifuge, Power Pack for southern & Northern blots, Automated microplate reader, Wesern Bolt unit, Photometer for PCR Work, Polymerze Chain Reaction Machine.

Mass Transfer Lab: Liquid Extraction Packed Bed, Vertical Tube Evaporator, Packed Distillation Column, Absorption in Packed Tower, Spray Tower, Fluidized Bed Dryer (With air circulation) Model No.MT - 18, Wetted Wall Column (with circulation), Batch Crystallizer, Forced Trav Dryer, Diffusivity Draft Counter Measurement. current leaching, Cross current leaching, Steam Distillation, Vapor liquid equilibrium, Surface evaporation, Liquid Extraction in Packed Bed.

PROCESS CONTROL & REACTION ENGG: Batch reactor, RTD in tubes plug flow reactor, RTD in packed bed, RTD in CSTR, Reactor combination of PFR and CSTR, Magnet pump, Multi range conductivity meter, Digital online, Process control loop trainers, Non-inracting tank, Time constant of Pressure Vessel & mercury meter, Constant temperature bath.

**HEAT TRANSFER LAB:** Shell and Heat Exchanger, Electrically Heated Boiler, Parallel flow / counter fliow/Double pipe heat exchanger, Pool Boiling Heat Transfer Apparatus Model No.HT - 1305, Forced Convection Heat Model HT-10, Natural Transfer Convention Heat Transfer Model HT-09 (Combine), Stefan Boltzmann apparatus Model No.HT-12, Thermal conductivity of insulating Powders Model – 04, Thermal conductivity of liquids model No. HT 07, Horizontal & Vertical Condenser Condenser Steam, Heat Transfer through coils, Natural and forced convection in air, Heat Transfer through packed bed apparatus, Transient heat conductionconstant heat flux, Transient heat conduction-constant temperature, Heat Transfer through vertical barre and

National Institute of Technology Karnataka, Surathkal finned tube heat exchanger, Plate heat exchanger, Spiral plate heat exchanger,

Heat losses by combined convention and radiation(for cylinder &sphere).

**FLUIED LAB:** Flow through pipes and fittings, Flow through office meter, Flow through rotameter, Flow through fluidized bed, Flow through Packed bed, Flow through venturi meter, Flow through Notches, Flow through coils, Characteristics of a centrifugal pump, Pitot tube, Open orifice, Annulus.

PARTICULATE TECHNOLOGY LABORATORY: Rotary high vacuum pump, Balance - electronic, Ball mill, Vacum pump, Seive Shaking Machine, Garden shredder, Screen effectiveness, Air permeability, Jaw crusher, Air elutriation, Batch sedimentation, Leaf filter, Drop weight crusher, Attrition mill, Jaw Crusher, Vibrator

# DEPARTMENT OF CIVIL ENGINEERING

Civil Engineering Material Testing Laboratory:-3000 kN Compression Testing Machines, Vibrating Tables, Concrete Flexure Testing Machine, Vee-Bee Test Apparatus, Rebound Hammer, Tile Testing Machine, Compaction Factor Test Apparatus, Los Angeles Abrasion Test set-up, Deep Freezers, Pelletizer,

### Earthquake Engineering Laboratory:-

Accelerometers, Mini Shake Table to test Models of Beams & Buildings, Soil-Structure Interaction Study system (?). Computational facility for seismic response simulation and dynamic soil-structure interaction studies

# Environmental Engineering Laboratory:-

UV Spectrophotometer, High Volume Air Sampler, Voltametry, Gas Chromatograph, HPLC, Ion selective electrode meter, Kjeldahl nitrogen distillation apparatus, Flame Photometer **Geotechnical Laboratory:-** Tri-axial loading facility, Rock cutting facility, Nuclear Density Gauge, Permeability Test apparatus.

**Transportation** Engineering Laboratory: 50 kN and 20 kN Fatigue Testing Machines Gyratory Compactor, Immersion Wheel Tracking Device, Modified Marshall Test Setup Pavement Core Drilling Device Portable Pendulum Type Skid Resistance Tester, Portable Axle Load Weighing Pads, Portable Falling weight deflectometer & Ground Probing, Radar (MHRD-TAT Project), Mini ROMDAS Asphalt Mixers of Capacity 5 litre and 20 litre, capacity, Asphalt Theoretical Density Tester, Wheel Rut Shaper and Wheel Rut Tester

Structures Laboratory: 2000 kN-Compression Testing Machine, Insitu Ion Migration Tester, Muffle Furnace, Column Testing Machine, Vibrating Tables, Loading Frames- 2 No, RCPT Test Apparatus - 2 sets, Corrosion Monitoring Unit, Accelerated Curing Tank, Humidity and Temperature Controlled Chamber Survey Stores:- Total Station, Auto Levels, Theodolites, Dumpy Levels

Advanced Asphalt Characterisation and Rheology Laboratory:- Modular Compact Rheometer System, Capillary Viscometer System, Brookfield Rotational Viscometer, Deep Freezing Unit, Rolling Thin Film Oven

**Computer Aided Design (CAD) Laboratory:-** 30 Computers, 2 No's 5KVA UPS Softwares

# DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING;

SYSTEMS & NETWORKS LAB-Computers – 46 No's.(16-Dell OptiPlex 9020M, 21-HP Elite desk 800G1 5-DellPrecision T1650 3-HP Prodesk 600G3MT 1-Lenovo 2016 purchased) Projector - 01 (EPSON EB-X24LCD DLP

National Institute of Technology Karnataka, Surathkal Projector) Printer – 01 (HP LaserJet 1020 plus) Scanner – 01 (HP Scan Jet G3110) LAN – 100 Mbps, Wi-Fi AP – 01 (RuckusR300)

**ALGORITHMS LAB**-Computers – 33 No's. (27- Dell OptiPlex 9010DT 6-HP Prodesk 600G3MT), Printer – 01 (Cannon LBP 2900B), LAN – 100 Mbps, Wi-Fi AP – 01 (RuckusR300),

INTEL E-COMMERCE & MULTI-CORE LAB (M.TECH (CSE)-PROJECT LAB)-Computers – 21 Nos. (2 – Lenovo Think Centre 19 – Dell OptiPlex9010MT) Printer – 01 (HP LaserJet 1020 plus) LAN – 100 Mbps Wi-Fi AP – 01 (RuckusR300)

**LAB** - Computers -08 Nos. (03 - Dell OptiPlex 9010DT 3- HP Elite desk 800G1 1 - Acer Variton System 01-Dell OptiPlex 9020MT), Printer - 01 (HP LaserJet 1010), LAN - 100 Mbps

DATA INFORMATICS & ANALYTICS LAB - Computers -15 Nos. (10 - Dell OptiPlex 9010DT 2 - Dell Precision T1650 1- Acer02-Dell OptiPlex 9020MT) Printer - 01 (HP LaserJet M1319f MFP), LAN - 100 Mbps, Wi-Fi AP - 01 (RuckusR300), Used for Ph.D. / Research Work.

NETWORK ENGINEERING LAB-Computers –16 Nos. (10 – Dell OptiPlex 9020 05 – Dell OptiPlex 9010DT 1-Lenovo Think Centre M 90), Printer – 01 (HP LaserJet 1010), HP Scanjet G2410, LAN – 100 Mbps, Wi-Fi AP – 01 (RuckusR300)

ADVANCED COMPUTING LAB-Computers – 52 Nos. (1 – Lenovo ThinkCentre M90 15 – Dell OptiPlex 9010DT 9 - HP Elite desk 800G1 27-HP Prodesk 600G3MT), LAN – 100 Mbps, Wi-Fi – 01 (Ruckus R300), Projector - 01 HITACHI CP X4014WN, Printer HP Laserjet P1007

Information Security Lab(M.Tech (CSE-IS) Project Lab)- Computers – 37 Nos. (20 – Dell OptiPlex 9010DT 1 – Lenovo Workstation S30 1 – Lenovo

Workstation D20 1-Lenovo Workstation S20 07 - Lenovo Workstation P700 4-Dell OptiPlex 90202- Dell Precision Work Station 5820 1 - Lenovo Think Centre M90), Printer – 2 (1 Canon LBP 2900 01-HP laserjet MFP), Wi-Fi – 01 (Ruckus R300), LAN – 100 Mbps

INTERNET & WEB ENGINEERING LAB-Computers - 42No's. ( 34-HP Elitedesk 800G11- Lenovo Think Centre M90 HP Prodesk 600G3 MT), Projector - 01 (EPSON X36 LCD Projector), Printer - 01 (HP LaserJet 1010), LAN - 100 Mbps, Wi-Fi AP - 01 (Ruckus R300)

Microprocessor Lab-Computers –1 Nos. (01 – Dell OptiPlex 9010), Digital IC Trainer Kit Digital IC Tester and other accessories, LAN – 100 Mbps, Wi-Fi AP – 01 (Ruckus R300)

Image and Speech Processing Lab-Computers –22 Nos. (19 – Lenovo ThinkStation 2 - Dell - Precession workstation 1-HP Elite Desk 705 GIMT), Printer – 01 (HP LaserJet 1010), LAN – 100 Mbps.

#### Data Centre/IBM Open Power Lab-

Server Class System (10 Nos.)03-Dell Power Edge T360, 01-DELL Power Edge R420, 02-DELL Power Edge R420, 01-DELL Power Edge T710, 01-DELL Power Edge R730, 02-IBM Xeon Server IBM Open Power Series System-02-IBM p-Series Server Model 9131/52A Server class system-01-DELL Power Edge R740, 01-Super Micro Boston X86 server

#### **DEPARTMENT OF CHEMISTRY:-**

#### **Extractive:**

Membrane Technology Laboratory. Surpass Electrokinetic analyzer, K-coater, Salinity testing unit, Hollow fiber spinning unit, Rotovapor

Synthetic Organic Chemistry Lab

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

National Institute of Technology Karnataka, Surathkal **High Voltage Testing Laboratory** - 100 KV impulse generator, HV standard capacitor, 5 KV Insulation tester, Oil test kit

**Electric Machines and Drives Laboratory-** DSP based drive control units V/F controls, Machine design software (speed, motorpro), Filed analysis software (MAXWELL 3DFS Rexroth INDRAMAT drive unit with AC servo motors

**Power Electronics Laboratory** - DSPACE – rapid prototyping unit, Converter / Inverter modules, power Device (SCR, IGBT, GTO) modules

Virtual Instrumentation Laboratory - NIDAQ systems, PXI1010 units with High Voltage measurement unit, NI-ELVIS stations, LABVIEW softwares, dSPACE 32xx rapid prototyping platform

Embedded Systems Laboratory - OSEK RTOS, KEIL RTOS, KEIL IDE for 805x, ARM, CODEWARRIOR IDE for 68HCXX, TI DSC Code composer Studio for 28XX MOTOROLA, INTEL, ARM, PIC DSC/MC units

Industrial Automation Laboratory - Distributed Control Systems [YOKOGAWA CS1000], PLC ROCKWELL RSLOGIX%))), ABB RTU232.

**Digital System Design Lab** -BASYS2 and BASYS3 kits supporting XILINX SPARTAN 2/3e FPGA, Analog Discovery 2 Kits supporting MSO Functionalities

**Micro Grid Laboratory**-10 kw wind solar hybrid system (2 wind turbines of 3.2 kw each and 3.6 photovoltaic system) capable of operating in grid connected and islanding mode of operation with charge controllers and Inverter. 1.2kW fuel cell bases experimental system.

**Analog Electronics Laboratory** - Comprises of trainer kit based systems to understand linear and nonlinear configuration of operational amplifier (IC 741) and Timer (IC 555) based circuits

**Digital Electronics Laboratory** - Comprises of trainer kit based systems to understand functioning of basic and universal logic gates, Combinational circuits and sequential circuits.

Signals & Systems Laboratory - athWorks based computational platform to model and characterize the continuous and discrete time signal and system characteristics in time and frequency domain.

**DSP Laboratory**- On using MathWorks based computational platform to write the code and uses of Simulink to understand the application of signal transformation in linear and nonlinear mixing, in typical communication systems such as AM, FM process. Understanding of Phase look loop (PLL) functioning, Approximation of Ideal filter responses using FIR and IIR filters.

**Dept. Computer Lab.** - 60 desktop computers in the Dept. Computer Lab.

**Power Systems Laboratory -**Scale-down model of 4-machine power systems, NI-based ADC and DAC cards for real-time data acquisition, Industry grade packages: EMTDC/PSCAD, MATLAB, LabVIEW softwares and in house developed power system stability analysis package, MatSim.

### DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

**Analog Electronics Lab:**- Digital Storage Oscilloscope, Function Generator, DC Regulated Power Supply Analog/Digital IC Tester

**Digital Electronics Lab:**- Digital Trainer, Analog/Digital IC Tester

Integrated Electronics Lab (Research Lab for Ph. D. Students):-Workstations, Access to all design tools available in the department.

National Institute of Technology Karnataka, Surathkal Communication Lab:- Digital Storage Oscilloscope, Function Generator, DC Regulated Power Supply, Microwave X band benches, Antenna Trainer Outdoor FSO Link Setup (Lightpoint), Wireless Comm Trainer Kits (2 set ups), Workstations, LD Driver, LD Module, PD Module, Power Meter, Fibre Optic Power Source, Optical Fibre Trainer, LD Modulator (Transmitter), FORX-200m (Receiver), Fiber Optics Kits, Wireless Sensor Network Professional Kit with Qualnet Network Simulator, Tools, Qualnet Network Simulator Wireless digital communication training system, (Wi-Communication-T), Outdoor free space optic (FSO) link. RF Equipments, 3GHz Spectrum Analyzer, RF Training Kit, RF Signal Generator, Vector Network analyzer 40GHz & Accessories, 3GHz Network Analyzer, 100MHz Mixed Signal Oscilloscope, 80MHzFunction/Arbitrary Waveform Generator, Digital Multimeter 6.5 digit Triple Output DC Regulator Power Supply, Electronic InstrumentationTraining Kit, RF Tools - HFSS, CST Microwave Studio, Digital Source meter with Safety universal Test

**Software**: Genesis Core Bundle License, Agilent VEE 8.5 , ADS 10 User Licence, Optsim 5 User Licence

**VLSI Lab:-** Workstations , File Server, Cadence Design suite,, Synopsys EDA Tools, Mentor Graphics Tools, Xilinx Tools, Tanner Tools

DSP Lab:- Dell OptiPlex 9020 x64based PC(s) DSP Starter Kits and Evaluation modules. Texas 320C6437, Instruments TMS **TMS** 320C6713, TMS 320C6416, **TMS** 320C5510, DM6446 Digital Video Evaluation Module, Beagle Board, MSP430, Code Development Tools for Texas Instruments, MATLAB 2015 (8.5.0), MATLAB 2016, MATLAB 2017 with various Toolboxes, Celoxica DK Design Suite, ModelSim, XILINX ISE, System Generator, ChipScope and EDK, XILINX Vivado Design Suite, SDSoC, Xilinx EVM - Celoxica RC10,

Virtex II, Virtex II Pro, Virtex V, Xilinx Xtreme DSP Development Kit, Xilinx Multimedia EVB, Xilinx Virtex IV Video Starter Kit, Virtex VI Embedded Kits, Xilinx Virtex VI FPGA Development Kit with High Speed Analog, Avnet Spartan - 6/O MAP Coprocessing development kit, Avnet Digilent Zed Boards, Zynq-7000 EPP ZC702 Evaluation Kit, Digilent Nexys 3 & Nexys 4 Kits, Digilent Nexys Video Kit & accessories, Digilent Zybo ZynqTM-7000 Development Boards, Altera Bitec Cyclone III Development Kit, Altera Cyclone IV GX FPGA Development Kit, Stream Processor Evaluation Platform, STM32F407 Discovery Kits.

Microprocessor & Embedded Systems Lab:- Workstations, Cadance ORCAD PSPICE A/D, PCB design tools, Matlab, Simulink, ARM based code development tools.

**Network Management Lab:-** Foundry N/w's Fastlron Edge X424

**R&D Lab (Research Lab for Ph. D. Students**): Workstations, Access to all design tools available in the department

Centre for Excellence for Wireless Sensor Networks:- Work stations, WSN Design kits, Qualnet SW, NETSIM SW, Sensors

Stochastic Modeling Imaging and LEarning (SMILE) Lab:- Workstations, Access to all design tools available in the department.

# DEPARTMENT OF INFORMATION TECHNOLOGY

**Digital Design Lab-I:-** DIGITAL IC TRAINER Model -UDT 4004-20, DIGITAL IC TESTER MME-DIT 2040-1

**Digital Design Lab - II**:-DIGITAL IC TRAINER Model - ML 555T-20, DIGITAL IC TESTER MME-DIT 2040-1

**Research Laboratory:-** HP Compaq 8200 Elite MT PC-1, HP Compaq 8300 Elite MT PC -5, HP Compaq 8100 Elite

Lead kit

National Institute of Technology Karnataka, Surathkal MT PC-2, Dell Optiplex 9020 MT core i7-3, HP xw4400 workstation-2, Lenovo Workstation E-1225V5, Dell Power Edge R730 2U Rack Mount Server-1, C-Netgear RN626X Ready NAS

Internet Technology Laboratory:- HP Compaq 8200 Elite MT PC-1, HP Compaq 8300 Elite MT PC -4, Dell 9010 DT-26761536 optiplex M-1, Dell Optiplex 9020 MT core i7- 2, HP Z800Workstation SGH030TDHR (GPU Computing Server)-1, Dell Power Edge R730XD 2U Rack Mount Server-1

Virtualization Lab:- N Computing L300 Clients -18

Post Graduate Lab -I:- HP Compaq 8100 Elite MT PC-7, HP Compaq 8200 Elite MT PC-4, HP EliteDesk 800 G1 TWR -6, Dell Optiplex 9020 MT core i7-10, Serveillance Setup, Dlink DCS 2103 CAMERADCS 2103-2

Post Graduate Lab - II:- DesktHP Compag 8200 Elite MT PC-20, HP 8100 Elite MT PC-1, HP Compag Compaq 8300 Elite MT PC -2, HP EliteDesk 800 G1 TWR -2, N Computing L300 Clients -2, Cameras: Serveillance Setup, Dlink DCS 2103 CAMERADCS 2103-2

Project Laboratory:-Desktop: Dell Optiplex 9020 MT core i7-9, HP EliteDesk 800 G1 TWR -1, HP Compaq 8100 Elite MT PC-10, HP Compaq 8200 PC-3. Elite MT Lenovo M90(5498-PR1)-3, HP Compaq dc 7900 Convertible Minitower -3 HP Compaq dx 2700 MT PC-1, IBM Thinkcenter (IBM, 8116A11)-1, Workstations:Dell Precission T1700-3

Think M90(5498-PR1)-56, HP Compaq dc Impact hammer, Tri-axial accelerometer, 7900 Convertible Minitower – 4, HP Electrodymnamic Compaq 8200 Elite MT PC-2, HP Compaq closed loop controller, force sensor, 8100 Elite MT PC-4, HP compaq dc 2700-1, impedence head IBM Thinkcentre- 2, Hp compaq xw4400 Workstation-1, 8841 45A IBM e server Refrigeration and Air-conditioning x236(99KYD74)-1, DL160 G6 E5504 HOT Research Laboratory: Micro heat pipe PL UG SERVER -1, AH234 A HP RX2660 test rig, Vapour pressure determination SERVER (intergrity server)-1, Connoi

Surveillance Setup, Dlink DCS 2103 CAMERADCS 2103-3MIC Systems: KQ-Infrared Sound Field SRS-1112 Reinforcement System-1

Undergraduate Lab -II:-Desktop:HP Compaq 8200 Elite MT PC-24, HP Compaq 8300 Elite MT PC-16,HP Compag 8300 Elite Small Form Factor-1, HP Compaq 8100 Elite MT PC-3, HP Elite Desk 800 G1 TWR -4, HP Compag dc 7900 Convertible Minitower - 1

### DEPARTMENT OF MATHEMATICAL & **COMPUTATIONAL SCIENCES:-**

Ground Floor- 49 Intel i7 Desktop with 8 GB RAM with dual OS 1st Floor- 40 Intel i7 Desktop with 8 GB RAM with dual OS 22 Intel i7 Desktop with 3 GB RAM with Ubuntu

2<sup>nd</sup> Floor (Software Development center) -30 Intel i7 Desktop with 8 GB RAM with dual OS

Project Lab (1st Floor) - 19 Intel i7 Desktop with 8 GB RAM with dual OS

### DEPARTMENT OF MECHANICAL **ENGINEERING**

**Advanced Dynamics Lab:** Experimental Modal Analysis, Forced Vibration Analysis, Tuned Impulse Hammer, Minishaker with controller, Modal Analysis Software

Wind tunnel laboratory: subsonic wind tunnel, force balance

Advanced Manufacturig Laboratory: 3-D Printing, Fused Deposition Modeling based 3-D Printer, Material Extrusion, Single Screw Extruder

Smart structures laboratory: Free and **Undergraduate Lab-I**: -Desktop: Lenovo focred vibration setup with controller, shaker,

> Brand test rig, Thermoelectric refrigeration test Mode Ntpsc T7025 Fermi-1, rig, Condenser pressure variation VCR

National Institute of Technology Karnataka, Surathkal test rig, Vortex tube refrigeration test rig, Air engine test rig, Weather simulation chamber & Window air conditioner test rig, two Stage VCR test rig with intercooler.

**Turbomachinery Laboratory:** Low speed compressor cascade test facility, Low speed turbine cascade test facility, Centrifugal blower test rig.

Polymer composites lab: vartm facility
Advanced fluid mechanics Lab:
Desiccant analysis test rig.

Tribology Laboratory: Metallurgical Sample Saw, High Temperature Tubular furnace, Ball mill, Disc Polishing Machine, Microscope, Pin on Disc Tribometer.

# 1. List of Software in CAD/CAM Laboratory:

•	Pro Engineer CREO	50 Users
•	Autocad	50 Users
•	Ansys15.0	25 Users
•	AnsysV10.0	10 Users
•	MSCAdams	50 Users
•	MSCatran	50 Users
•	MSCastran	50 Users
•	MSCMarc	50 Users
•	MSCytran	50 Users
•	CatiaP3	10 Users
•	CATIAnovia	05 Users
•	CATIADelmi	05 Users
•	CATIAPLMExpress	05 Users

 LMS AMESim (Multi-domain system Simulation) 05 users

 Unigraphics with AdvancedbMachining Module 05 Users

Deform (Design
 Environment for
 FORMing
 O1 User

 AutodeskMoldflow
 25 Users

• SimPACK (MBD Software)

25 Users

MasterCAM
HyperWorks
RobotKit
02 Users
05 Users
02 Nos.

Materials Characterization Laboratory: Vacuum Arc Melting

Furnace, Image Analyzer, Universal Testing Machine, Wire Electro Discharge Machine, Vickers Hardness Tester, Double headed Rolling Machine.

**Vibration and Condition Monitoring Laboratory:** Electromagnetic shaker (100kgf, 50kgf, 25kgf), Horizontal slip table, VTS electro-dynamic shaker (25lbs), Gauss meter, Electro magnets (1.5 Tesla), Impact hammer, and tri-axial accelerometers, Data (NI. acquisition system HBMMicrophone SLM, and ), MicroEpsilon displacement Laser ADAMS, pickups, NASTRAN, PATRON, MARC, DITRON, ANSYS, Devitron. Labview.

**Robotics Laboratory:** Lego Robotic Kit, Firebird, Basic Electronic Components, DC Motors, Connecting Pins, Wires, LEDs Berg Strip, and Bread Board, Quadcopter kit, Wall Following Robot.

### **Metrology Laboratory:**

#### A. Linear Measurements

- 1. Vernier Caliper
- 2. Vernier Depth Gauge
- 3. Vernier Height Gauge

#### **B.** Micrometer

- 4. External Micrometer
- 5 .Internal Micrometer
- A. Jaw Type Inside Micrometer
- B. Caliper Type Inside Micrometer
- 6. Depth Micrometer
- 7. Bench Micrometer
- 8. Digital Micrometer
- 9. Telescopic Gauge

### C. Measurement Using Slip Gauge

- 10. Calibration of Micrometer, Vernier Caliper,
- 11. Calibration of Height Gauge, Snapgauge, Ring Gauge and Plug Gauge.
- 12. Measurement of Mean
  Distance between Surface and
  Spacing between Holes.
- 13. Measurement of Dovetail Angle and Checking the Taper Angle of Taper Plug Gauge.
- 14. Checking An Angle Plate.
- 15. Study On Limit And Position Gauges

### D. Linear and Angle Measurement

- 16. Combination Set.
- E. Angle Measurement
- 17. Universal Bevel Protracter
- 18. Sine Bar
- F. Flatness And Straightness Measurement
- 19. Clinometer
- G. Screw Thread Measurement
- 20. Screw Pitch Gauge
- 21. Screw Thread Micrometer
- 22. Effective Diameter
  Measurement Using Two Wire
  And Three Wire Method.
- H. Gear Tooth Measurement
- 23. Vernier Gear Tooth Caliper
- 24. Tooth Span Micrometer
  - I. Study On Opto-Mechanical Instruments
- 25. Tool Makers Microscope
- 26. Measurement Using Comparator
  - J. Surface Roughness Measurement
- 27. Surface Roughness Meter (SJ 301)

  Microsystems Laboratory: MEMS
  Sensors Scanning Tunneling
  Microscope, Self Build Kit, Atomic
  Force Microscope, Comsol and
  Intellisuite (Courtesy: NMDC), Sugar
  Toolbox and MATLAB (Institute
  Network)

Heat Transfer Laboratory: convection heat transfer, Heat transfer through composite walls, Water cooling tower, Shell and tube exchanger, Measurement heat of thermal conductivity of metal Measurement of thermal rod, conductivity of solids, Computerized vapour, compression refrigeration test rig, Peristaltic pump model, Air conditioning test rig, Vapor compression refrigeration test rig, Heat pipe demonstrator, Heat transfer through extended surfaces, Measurement of emissivity of metal Heat transfer through surfaces, lagged pipe, Heat transfer through Forced convection, Computerized Air conditioning test rig,. Boiling heat transfer apparatus, Film and Drop condensation. wise Ice plant tutor,. Parallel flow heat exchanger,. Plate Heat

exchanger,. Heat pump setup, Fluidized Bed system, Refrigerator, Natural convection, Critical Heat flux apparatus.

Machine Dynamics and Vibration Laboratory: Kinematics of Epicyclic Kinematics of Mechanism, Kinematics of Gear Kinematics of Slider Crank Train. Mechanism, Spring Mass System, Transmissibility Apparatus, Free Vibration of beam, Experimental Modal Analysis.

CNC, Pneumatic and Electro
Pneumatic Laboratory: Trainer
Lathe, Trainer Milling Machine,
Electro Pneumatic Trainer Kit with
Cylinders and Control valves

IC Engine Research Laboratory: MMM Vertical 4- Stroke Diesel Engine, Textool 2- Stroke Vertical Diesel Engine, Textool 4- Stroke Vertical Diesel Engine, Valve and Port Timing Diagrams, (a) Compression Ratio of given IC Engines, (b) Morse Test, Computerized multi-cylinder MPFI Gasoline engine, Computerized Single cylinder DI Diesel Engine, Exhaust Analyzer, Hydrogen fuelled SI Engine test rig. CRDI Diesel Engine test rig, Kirloskar Diesel Engine test rig.

Fuels Laboratory: Boys gas Calorimeter set(Calorimeter+ gas flow meter (0-1000ml), Redwood viscometer No.1, Saybolt Viscometer, TAR Viscometer(Redwood viscometer No.2, Instech Calorimeter, Flash point tester(Close-up), Barometer with room temperature no. 597,. Digital weighing machine (0-10grams), Saybolt Viscometer(old), BombCalorimeter, Clev eland Flash & fire point apparatus, Weighing machine (0-2 kg).

Theory of Machines Laboratory:
Spring mass system, Whirling shaft apparatus, Motorised gyroscope apparatus, Digital weighing machine (0-50kgs), Physical balance, Dead weight tester(0-35kg), Digital dead weight tester(0-

National Institute of Technology Karnataka, Surathkal 60kg), Digital dead weight tester(0-Planimeter set, 250kg), Thermo-HygrographH10/100%, Computerise d Emission test set up, Single stage spur gear, Single stage spur gear with intermediate, Two stage spur gear, Three stage spur gear, Three speed and reverse gear, Worm Rack gear, Bevel gear, and quadrant gear drive, Reversing gear **Epicyclic** (sun gear, planet), Cycloidal motion, Internal rolling gear drive, Internal gear and pinion drive spur gear.

Automotive Electronics Laboratory: IRIS CAR (Lab Car), with Breakout box, ECU, InjectorBox, Wireharness, C ommunication Module, DC Power Supply, Function Generator, Oscilloscope, Cut Section Models. Stress Analysis Laboratory Poloriscope, Strain measurement setup Fracture and Fatigue Laboratory Fatigue setup.

### DEPARTMENT OF MINING ENGINEERING:-

Rock Mechanics Laboratory:
Rock cutting machine, Compression
testing machine, Schimidit hammer,
Digital inclinometer, Core drilling
machine, other rock cutting
facilities, Ground Penetration Radar
(GPR), Related Software (Fraglyst,
Sirrovision and numerical modeling
software).

Drilling and Blasting Laboratory:
Minimates, Minimate plus, High
speed video camera, VOD monitor,
Laser profile, WIPFRAG software,
Jack hammer drilling set-up, Air
compressor, Modified lathe machine
for rock cutting, Manometer,
Crossing point temperature, Digital
Methanometer, CO detector,
Psychomotor and etc.

Mine Environmental Engineering Laboratory: Water pollution monitoring kit, Respirable dust sampler, Sound level meter, Gas testing set up, Exhaust gas analyzer, Multi gas detector

Mineral **Processing** Laboratory: Automatic weather monitoring system, Personal & Heat stress monitoring Equipment, Self-Contained breathing apparatus, Human vibration measuring apparatus, Digital millivolt meter, vibration Machine measuring apparatus, Larson & Davis noise dose meter, Jaw Crusher, Roller Crusher, Rod Mill, Ball Mill, Bond' Work Index Setup, Electro Magnetic Jigging Shaker. Riffle Sampler, Machine, Wilfly's Table, Automatic Mineral Seperator, Spiral Classifier Density Seperator Hydro Cyclone, Davis Tube Tester, Electro Magnetic Separator-Wet, Drum Electro Magnetic Drum Separator- Dry, Froth Floatation Cell, Auto Sampler-Psd-S, Sampling / Crushing / Grinding -Integrated Unit, Turbo Mixer, Micro Mill, Vaccum Filtaration Unit, Disc Mill, Pot Mill, Double Deck Vibratory Screen Model, Infrared Drier, Spiral Concentrate, Sieve Shaker.

Mine Surveying Laboratory:
Prismatic Compass, Surveyor
Compass, Vernier Theodolite, MicroOptic Theodolite, Dumpy level, Auto
level, Digital level, Total station,
Handheld GPS, DGPS.

Mine Planning and Design Laboratory:-D-link manageable switch, HP 3200 A4 scanner, HP 1010/1015 Laser printer, HP plotter, Surpac Mine Planning Software. software, Reliability Sirovision softwarJ K Sim blast software, Mine Pollution Laboratory:- Merc SQ118 water quality analyzer, High volume air sampler, Respirable dust sampler, Sound level meter, Opacity meter, sampler, Beta attenuation Point meter, Weather monitoring station.

# DEPARTMENT OF METALLURGICAL & MATERIALS ENGINEERING

**Extractive Metallurgy Lab:** Crushers, Ball mill, Floatation cells, C&S analyzer, Sieve analyzer

National Institute of Technology Karnataka, Surathkal **Testing of Materials Lab:** UTM, Instron, Wear testing machine, Hardness testers, NDT, Fatigue testing machine

**Physical Metallurgy Lab**: Metallography, Microhardness, Image Analyser, Dilatometer

Ceramics & Polymer Lab:

Ceramics & Polymer Lab **Heat treatment Lab:** Heat

treatment furnaces, Thermal cycle

furnaces

Metal Finishing Lab: Plating

facilities

Foundry lab: Induction furnace,

Permeability meter

### Scanning Electron Micoscope Lab:

Scanning Electron Microscope with EDAX

Casting Research Lab: Data logger, Hot stage microscope, Contact Angle Analyser, Image analyzer, Instron tensile tester, Quenchometer, Stereo microscope, 2D Surface Profiler, Solid Cast Software, Ultrsonicator, Ultrasound velocity meter, Thermal property analyser, DAGE bond tester

Powder Metallurgy & Nano technology Lab: Thermolyne High Temperature Furnace, Density Measurement Kit, Incubaters – Ecogain veries, Hot Air Oven.

### **Transmission Electron Micoscope**

**Lab**: Transmission electron microscope, GATAN ion milling unit.

**Metal Processing Lab:** Rolling mill, Precision cutting machines, 250 ton Hydraulic press

**Corrosion Lab**: Potentiostat and Impedance analyser

**Coating lab**: PVD facility, electron beam deposition set up. DC sputtering setup

**FTIR Lab**: FTIR Spectrometer, Four robe resistivity measurement system, USB Oscilloscope **XRD Lab**: X-ray Diffractometer

Ceramic & Thin Film Lab: UV Ozone Cleaner, Ultrasonic Atomizer, Scratch Tester, Spi Coater, Probe Sonicator, Vacuum Oven, Screen Printer, Stretching Machine with Compressor, Four Probe & Two Probe, Glass Cutter, Fume Hood.

#### DEPARTMENT OF PHYSICS:-

**Thin Films Lab:-** X-Ray diffractometer, Keithley Source Meter, Keithley Multimeter Sputtering Unit, Physical Deposition Unit Spray Pyrolysis Unit, LCR Meter, Vacuum coating system.

**Optoelectronics Lab:** Ocean Optics Inc SD2000 spectrometer, Thermal evaporator, Keithley Sourcemeter (model 2400). Jobin Yvon spectrometer with a CCD based detector, Keithley 6485 Picoammeter, Agilent E4980A Precision LCR meter 20 Hz to 2MHz.

**Crystal Growth & Nano materials Lab**:- Solution growth system for crystal growth, High temperature furnace, Magnetron sputtering system, Thin film coating unit, Fume Hood, Vacuum deposition system,-Thermal, DC, RF coating system.

Materials Processing Lab:- CLEMEX Micro-hardness Tester, Physical vapour deposition, Polishing Machine Muffle furnace (Max Temp 10000C), Low speed Diamond saw cutting Blade, Abbe refractometer, Density kit, High temperature furnace, P H Meter, U V Visible spectrometer, Computer Interfaced Microhardness Tester, Density kit.

**Materials** Research Lab:-Electrochemical Workstation, Mbraun Glove Box, Neware battery analyzer, Kiethly 2 probe probe and measurement systems, Ocean Optics UV-Vis spectrometer, DC Spectrum Analyzer, Muffle Furnace, Weighing Battery Crimper set up, Sputtering Unit, Spin Coater, Spray Pyrolysis unit, Vacuum Oven, Hot air oven.

**Advanced Instrumentation Lab:-** X-ray Diffractometer, Photoluminescence, Spectrometer

**Computational Physics Lab:-** Power Edge Dell Server

**Functional Nanostructured Materials Research Lab:-** Hot air oven, Bench-Top Centrifuge, Weighing Balance (0.1mg precision), Photocatalytic reaction chamber Ultrasonicator.

#### SCHOOL OF MANAGEMENT:-

**Computer laboratory**:- SPSS, Palisade Decision Tools Suite, CMIE Prowess Database, CRISIL Research Reports

**Itell Language Laboratory:-** Software from Logitech Solutions Itell catering 500+1 user

#### 11.5 WORKSHOPS

### DEPARTMENT OF APPLIED MECHANICS AND HYDRAULICS:-

Departmental mini workshop: Lathe, shearing machine, drilling machine. Grinding machine

# DEPARTMENT OF CIVIL ENGINEERING

Civil Engineering Department Workshop:- A Lathe, A Shearing Machine, Electrically, operated Power Saw, and Welding, Transformer

# DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

Electrical Department Workshop -Lathe, Drilling And Welding Machines Along With Work Bench And Other Machine Tool Facilities

### DEPARTMENT OF MECHANICAL ENGINEERING

**Machine Shop - I:** Center Lathe, Heavy duty Center Lathe Geared head Center Lathe, Shaping machine, Universal

Milling Machine, Heavy duty piller type drilling machine, Light duty piller type drilling machine, Pedestal grinding machine, Capston Lathe.

Machine Shop - II: Surface Grinding Machine, Cylindrical Grinding Machine, Capstan Horizontal Lathe, Milling Machine with Vertical attachment, Broaching Machine, Light Duty Shaper, Heavy Duty Shaper, Slotting Machine, Planner, Grinding Cutter Machine, Heavy Cylindrical Grinding Machine, CNC Centre, CNC Milling Turning Centre, Heavy Duty Shearing Machine, Hydraulic Radia1 Press. Heavy Duty Hydraulic Radial Drilling Machine, Machine, Drilling Universal Milling Machine, Centre Lathe, Hydraulic Compressor.

**Carpentry Shop:** Wood turning lathe, Circular saw, Carpentry bench vise and table

Fitting Shop: Bench vise with Surface plate, table. Anvil Power Tool, 5. Drilling set and accessories, Saber saw, Jig saw, Hot air gun, Tappers, Nibbler, Shearing machine, Grinding machine, Circular saw, Impact wrench, Battery operated drill, Blower, Eccentric sander, Router machine, Wood planner, Jig saw, Hammer drilling, Core cutter drilling machine

**Sheet Metal Shop:** Soldering table, Bench vise, Shearing machine

### 11.6 HOSPITAL, POST OFFICE, SHOPPING CENTRE

**Hospital:** One Health Care Center with the services of regular doctors and visiting expert doctors is available. Medical Shop is also available in the Health Care Center.

**Post Office:** Post Office is available within the Campus.

**Banks:** Two banks (SBI and Canara Bank) are functioning within the

National Institute of Technology Karnataka, Surathkal Campus. Four ATMs (2 of SBI and 2 of Canara bank) are available at different locations within the campus.

**Shopping Centers:** Two Shopping Complexes are available within the campus accommodating about 15 shopping rooms which includes Saloon, Beauty Parlors, Printing and Xerox, Vegetable outlet, Bakery, Tailoring, Cloth Shop, Milk parlors, food outlets etc.

**Physical education & Facilities**: Full-fledged Gymnasium facility, sports grounds for out-door games, Sports complex for in-door games are available within the campus.

# 11.7 PHYSICAL EDUCATION FACILITIES

### FACILITIES/AMENITIES:

Department of Physical Education and Sports of this Institute has got excellent Sports infrastructures and facilities provided here is considered as one of the best among all NITs as well as among other Institutions and Universities of this State. Standard, well maintained play fields for all major games like one 400Mts. Track for Athletics, One 75 Yards Boundary Cricket field with 3 playing pitches, One 70 yards boundary Cricket field with a matting wicket, 2 standard size Football fields, 2 Hockey fields with 2 pairs of goalposts with boards. 2 concrete Basketball courts with FG boards and Flood Light facilities, 1 Basketball concrete court at Girls Hostel with flood lights, 2 Volleyball courts with flood light facility, 4 Tennis courts, 2 Ball Badminton, 2 Throwball, 2 Kho-Kho, 2 Kabaddi, 2 Tennikoit courts are available for use. Provision is also there to put Two Handball court with goal posts and one Baseball field with all Bases and other required amenities. An indoor hall with 3 Badminton courts and 4 TT tables with proper Lighting system, kept open for 15 hours a day, all 365 days for students use. Weight training hall with Multi Gym, Mini

Gym, Individual stations for all sorts of exercises, Weight Lifting and Power Lifting Barbell sets, Fitness equipments like Jogger Treadmills, steppers, Rowing Machines, Bicycle Ergometers, Peck Decks and Abdominal shapers are open for use everyone even during early mornings and late evenings. Above all these, like a jewel on the Crown an international standard Swimming Pool of 50 x 21 Mts., 8 lane with anti wave lane markers, Olympic type take off boards and diving facilities with 3 Platforms of 1, 3 and 5 meters height as well as a Fiberglass Spring Board fixed at 1 Meter height is ready for use in this Institute.

### **GAMES & SPORTS FACILITIES:**

All students, staffs and residents in and around the campus are freely permitted to utilize all Play ground and Gym facilities available in the Institute. Admission to Swimming Pool is free to all students of this Institute. Staffs, residents of the Campus, family members of the staff and staff + students of the campus schools are charged with nominal fee to use the Pool. High quality and standard Sports/Games equipments/articles are provided to students and staffs of this Institute who use these play field facilities, except some personal articles like Tennis, Shuttle Badminton and TT Rackets. Opportunity to all students, staffs and other residents of the campus have been provided participate in different level competitive Sports and Games, by organizing Inter-Class, Inter-Branch, Year and Campus Inter tournaments(Competitions) in most all games for both sections. Girls Block Hostel has been provided Basketball, Volleyball, with Tennikoit, Kho-Kho, and Badminton courts, 2 TT Tables, 4 Carom Boards Gym with some fitness equipments including a Mini Gym. Arrangements have been made to

National Institute of Technology Karnataka, Surathkal provide TT Tables, Carrom Boards and a set of Cricket stumps and Bats to each Blocks of Boys Hostels. Volleyball, Throw ball and Badminton courts have been laid near Staff Recreation Club for the use of staff members. TT, carom and Chess like indoor games with required sports articles were also provided for staff club.

A11 those who get selected to the Institution represent and participate in any of the tournament will be provided with Institute Uniforms (Colors) and expenditures during participation of that team will be met by the Institute. In addition, Football and Hockey team members will be provided with Stockings and Shin Guards, Cricket team members will be provided with white Pants, Shirts and Caps. All students and Officials who participate in Inter NIT or University tournaments will be provided with Institute Track Suits. All students who represent this Institution in Sports and Games will be provided with Shoe subsidy of Rs.800-00 per year.

### 11.8 STAFF QUARTERS

**Staff quarters:** 197 numbers of Faculty and 120 numbers of Non-faculty staff quarters are available in the Campus.

### 12 STUDENT ACTIVITIES STUDENTS UNION

Election to the Students' Union of the Institute was held on 10.4.2017 and the following office bearers were elected: Tanuj Kumar Kadiyala – President Gagan S - Secretary Sai Kumar - Joint Secretary Aishwarya Sanjeev Kumar – Girls Representative

### GAMES AND SPORTS STUDENTS ACTIVITIES:

All students, staffs and community in and around the campus are free to use the playing, training and coaching facilities available in the DPES of this Institute. Staff of the DPES are ready to provide instruction, teaching, coaching and training facilities to all interested

peoples in and around the campus. This year students teams in the following games were selected by conducting selection tournament/trials and these selected teams have been trained, coached and well prepared to participate in different tournaments. 1) Athletics, 2) Aquatics, 3) Badminton, 4) Ball Badminton, 5) Basketball, 6) Carom, 7) Chess, 8) Cricket, 9) Football, 10)Handball, 11) Hockey, 12) Kabaddi, 13) Kho-Kho, 14) Table Tennis 15) Tennis,16) Volleyball, and 17) Weight Lifting, Power Lifting and Body building, in Boys section, 1) Athletics, 2) Aquatics, 3) Badminton, 4) Basketball 5) Tennis, 6) Table Tennis, 7) Throwball, and 8) Volleyball, in girls section. Special coaching camps are being held by engaging qualified coaches in Athletics, Aquatics, Basketball, Football, Handball, Hockey and Volleyball. For the students of our campus and neighboring schools, teaching, training and coaching classes were conducted in Athletics, Tennis, TT, Shuttle Badminton, Football, Hockey, Kho-Kho, Handball and Volleyball. To impart knowledge of swimming and water survival skills among each and every one "Learn to Swim" coaching camps of 21 days duration were conducted by PED in the Institute Swimming Pool. Staff and Students of our Institution, Campus Schools and neighboring Schools and Colleges are making good use of these facilities. Since it is mandatory for students to participate in Sports and Games, arrangement is to accommodate made as many students as possible in different play fields. Instruction and proper guidance has been provided to all to enhance participation in different sports, games Physical **Fitness** activities and systematically and effectively.

All students are insisted to participate in any of the fitness activities of their choice regularly to maintain their Physical Fitness level. Every student is encouraged to spend at least half an hour a day in the play field playing any games of their choice as recreation. All students of this Institute are insisted to

National Institute of Technology Karnataka, Surathkal become member of the Swimming pool and attain the knowledge of water survival skill or swimming. "Learn to swim" as well as advanced swimming coaching camps are conducted to cater the needs of all students and campus Competitions are being conducted from the lowest level starting from, their own class/Section, inter class, inter Branch, inter year and inter collegiate level. Intra-Mural competitions in individual sports like Athletics and Aquatics were conducted by DPES and Medals, Certificates and prize money were being awarded to the winners of these competitions as a motivation. Students were allowed to participate in Taluk, District and state level open as well as inter collegiate competitions organized other bv colleges, District Associations and other Government organizations. Students are permitted to participate in State and national level sports competitions organized by AIU and other neighboring institutions. All of our Institute teams are permitted to participate in All India Inter NIT Sports organized at other NITs. Institute is regularly organizing All India Inter NIT Sports every year in some or other games. This year, All India Inter NIT in Handball, Hockey, Kabaddi and Swimming were being organized at our Institute during 12th to 14th January, 2018. More than 500 students from other NITs (22 Men Kabaddi teams, 8 Hockey teams, 8 Handball teams & 12 Swimming Men and Women teams) participated in this Inter NIT sports. Participants were being provided with free Boarding and Lodging facilities. During **INCIDENT**" National level cultural Festival, DPES organized "Slam Dunk" Inter Collegiate Basketball and "Spin Shot" Inter Collegiate Throwball (Women) Tournament inviting teams from all over India. Recreation committee is conducting inter branch, inter year and inter class competitions in many games utilizing all facilities available in the DPES. Phoenix an intra mural sports competitions has been conducted in the even semester this year also.

Intra-Mural Competitions in Aquatics and Athletics conducted during the month of October, 2017 attracted large number of student participants. Prize money, Medals and Certificates were distributed to 3 place winners of each event. Institute Aquatics and Athletics teams were selected on the basis of these results.

Phoenix, a gala of sports (An Inter year competitions for students) has been conducted in the even semester and by enthusiastic huge participation, students responded overwhelmingly and spontaneously.

#### SPECIAL INITIATIVES:

Enhancement of Infrastructural facilities:

Construction work of Sports pavilion complex with provision for Fitness Gym, Squash courts, Table Tennis hall, Badminton Hall. Indoor games hall, Aerobic dance hall, Indoor Cricket pitches, Cricket pavilion, Athletic pavilion, Department office, Store room, Dressing/changing room for many outdoor games with locker facilities and required Bath room and Toilets, is nearing completion and will be available for use from July, 2018.

### SIGNIFICANT ACHIEVEMENTS:

Physical Education and Sports: Institute teams formed, trained and coached were allowed to participate in different Taluk, District, State and National level Inter University level tournaments/ Competitions.

- 1.DKCA Cup Intercollegiate Cricket tournament for Professional Colleges: Runners-Up
- 2. Dasara Tournaments: Basketball(Men) District: Winners, Badminton(Men & Women) District Runners-up, Table Tennis (Men) District: runners-up.
- 3. DK District Basketball Association conducted James Neighsmith Intercollegiate Basketball Tournament: Institute Men Basketball team was Runners-Up.

National Institute of Technology Karnataka, Surathkal B S A Kumar Inter Collegiate Basketball Tournament Conducted by Yenepoya University: Institute Men Basketball Team were Runners-Up. 4. All India Inter NIT Sports in Handball, Hockey, Kabaddi, and Swimming(Men and Women) have been organized by our Institute: Our Institute Hockey (Men): 3rd runners-Up, Handball (Men): Team Championship Runners-Up, and Swimming (Men) were Team Championship Winners, Swimming (Women) Team Championship Runners-Up and Swimming overall championship winners. Other results of All India Inter NIT Tournaments held at other NITs: Athletics held at MNIT Jaipur, Prajwal won gold medal in 200Mts 3. Hydrodynamic & 400Mts run, Sandeep Kumar won Gold medal in Shot Put. Body Building(Men), Power Lifting(Men), and Weight Lifting(Men)- Sandeep Kumar won One Gold and One Silver Medals, Inter NIT Sportsd held at NIT Warangal, Badminton (Men)- II Runners-Up, Basketball (Men) II Runners-Up, Tennis (Men): Wnners. All India Inter NIT Sports held at NIT Kurukshetra: Chess(Men) -Winners. 5. 3 District open Tennis tournament held at Bramhavar, Institute team won I and II place in Singles and I place in doubles. 6.Karavali Staff Intercollegiate tournaments: Tennis Doubles: Dr. D Hariprasad: Winner.

7.Revels cup, All India Inter Engineering collegiate Swimming competitions held at Manipal, Institute of Technology, our Institute won 2 gold, 3 silver and 19 bronze medals. Chess Team won II place. 8. Adrenalin, Inter Professional collegiate Sports held at Father Muller Medical college, Kabaddi and Chess teams were Champions.

# 13 RESEARCH, DEVELOPMENT & CONSULTANCY PROJECTS

# 13.1 R & D PROJECTS (ONGOING & SANCTIONED)

# DEPARTMENT OF APPLIED MECHANICS AND HYDRAULICS

1. Fund for Improvement of S&T Infrastructure in Universities and Higher Educational Institutions (FIST)

Program – 2014 (Strengthening PG teaching and research – Spectro radiometer and Random wave generator with accessories), Sponsored by: DST, Govt. of India, Investigator(s): Subba Rao, G.S.Dwarakish, A. Mahesha, H.Ramesh, Manu & Pruthviraj U., Rs. 209.0 Lakhs, 2015-20

- 2. Coupled dynamic analysis associated with the response and design loads of offshore floating wind turbine, Sponsored by: SERB, DST, Govt. of India, Investigator: Debabrata Karmakar, 25.0 Lakhs, 2016-18
- 3. Hydrodynamic performance characteristics of Caisson type breakwater, Sponsored by: Ministry of Earth Sciences, Investigator(s): Manu (PI), Subba Rao (Co-PI) & A.Vittal Hegde(Co-PI), 78.84 Lakhs, 2016-21
- 4. Optimal Damping of porous screen in Tuned Liquid Damper-Structure interaction, Sponsored by: SERB, DST, Govt. of India, Investigator: T. Nasar, 32.67 Lakhs, 2016-19
- Climate change Impact on West coast river basins, Sponsored by: Ministry of Water Resources Investigator(s): Dr. A.Mahesha, Dr. Amba Shetty, Dr. Varija & Dr. H. Ramesh, 65.40 Lakhs, 2016-19
- 6. Plastic waste management system, Sponsored by : TEQIP-III, NITK, Investigator(s): PI: K.V. Gangadharan Co-PIs:Lakshman Nandagiri, Pruthviraj U, 6.2 Lakhs, 2016-17
- 7. Conjunctive use of surface water and groundwater management: A new framework for strategic decision making, Sponsored by: DST, EMR, Investigator: H.Ramesh, 45.0 Lakhs, 2017-20
- 8. Effect of Frictional Heat on Coefficient of Friction during Full Slip of Al6061 T6 Hertzian Contacts, Sponsored by: Science & Engineering Research Board (SERB), DST, Investigator: Dr. Vadivuchezhian K, 27.0 Lakhs, 2018-20

# DEPARTMENT CHEMICAL ENGINEERING

- DST-FIST Level I project for Chemical Engineering Department DST FIST Implementation Team: Prof. M.B.Saidutta; Dr.Vidya Shetty K, Dr. Prasanna B D, Dr. I Regupathi, Dr. P E Jagadeeshbabu, Rs.227 lakhs.- 2014-2019
- 2. Development of a sustainable technology to produce oxalate depleted starch from Taro corms by AISTDF, SERB Principal Investigator: Dr. Prasanna B.D, Co-PI: Dr. Rungtiwa W (Mahidol university, Thailand) & Dr. E. Maribel Agoo (De La Salle University, Philippines); at the cost of Rs. 25.44 Lakhs (2018-2021). Sanctioned date: 01.02.2018
- 3. In vitro mass culture of *Steinernema jeffreyense*, a biocontrol agent against key insect pests by DST (International Division). Principal Investigator: Dr. Prasanna B.D, PI (South Africa): Dr. Antoinette P. Malan (Stellenbosch University); at the cost of Rs. 27.6 Lakhs. Sanctioned date: 07.12.2016
- Ambient airborne particulate matter: Effect of biological component on lung inflammation SERB-DST, Govt. of India. Principal Investigator: Dr. Gangamma S. at the cost of Rs 51 lakhs
- 5. Air pollution induced immune cell dysfunction: Implication in Viral infection (In collaboration with IISER, Bhopal, SERB-DST, Govt. of India. Principal Investigator: Dr. Gangamma S. at the cost of Rs 54 lakhs
- 6. Biomass fuel burning smoke induced inflammation: Mechanism of biological pathways, CSIR, New Delhi, Principal Investigator: Dr. Gangamma S. at the cost of Rs 17 lakhs (2015-2018)
- 7. Heavy metal removal by Melanin coated Polymer matrix (Co-PI), DST, Govt. of India. Principal Investigator: Dr. Gangamma S. at the cost of Rs 38 lakhs
- 8. Heavy metals removal by adsorption on melanin coated polymer matrix, DST, Principal Investigator: Dr. Keyur

- Raval at the cost of Rs. 37.5 lacs, 2015-2018.
- 9. Impact of maternal diabetes on preimplantation embryo development: Non-invasive approach to assess embryo quality using oxygen consumption, SERB, Principal Investigator: Dr. Keyur Raval at the cost of Rs. 54 lacs, 2017-2020
- 10. Synthesis of β-cyclodextrin nickel ferrite nanoparticles for the removal of pharmaceutical compounds from aqueous systems, DST SERB (ASEAN INDIA), Principal Investigator: Dr. B. Raj Mohan (2018)
- 11. Future Materials in Solid Oxide Fuel Cells and Electrolytes sponsored by DST Inspire India Principal investigator: Dr. Hari Prasad Dasari; Chemical Engg. at the cost of Rs. 35 Lakhs. (Period 28/04/2014 to 28/04/2019)
- 12.Decreasing the Sintering temperature of Solid-Oxide Fuel Cell Electrolytes sponsored by KIST Korea Principal investigator: Dr. Hari Prasad Dasari; Chemical Engg. at the cost of Rs. 11 Lakhs. (Period 2016 to 2017)
- 13. Development of Quaternary Ceria Based Catalysts for soot oxidation Activity sponsored by KIST Korea Principal investigator: Dr. Hari Prasad Dasari; Chemical Engg. at the cost of Rs. 35 Lakhs. (Period 01/01/2017 to 01/01/2019)
- 14. Development of Novel SOFC Electrolyte Materials with enhanced Ionic Conductivity sponsored by DST SERB India Principal investigator: Dr. Hari Prasad Dasari; Chemical Engg. at the cost of Rs. 35 Lakhs. (Period 30/03/2017 to 30/03/2020)
- 15.Methanol as a clean Energy Source for india Sponsored by U.S. india 21st Century knowledge initiative. Principal investigator: M B Saidutta, Umesh, Ruben Sudhakar D, hari Prasad Dasari at the cost of 91 lakh - 1st August, 2016 31st July, 2019.

# DEPARTMENT OF CIVIL ENGINEERING

**Dr. BBD,** DST & KIOCL, **Dr. Talla,** Imprint

### DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

- Development of tool for detection of XML based Injection Vulnerabilities in web applications-sponsored by DIT MCIT, PI: Dr. P. Santhi Thilagam Co-PI: Dr. Alwyn Roshan Pais, at the cost of 38.16 Lakhs, 2014-2016
- 2. FIST Program sponsored by DS, PI: Head of the Department CSE, at the cost of 56.00 Lakhs, 2014-2018
- 3. Information Security Education and awareness Phase-II-sponsored by DIT MCIT, PI: Dr. Alwyn Roshan Pais Co-PI: Dr. P. Santhi Thilagam, at the cost of 2.7 crore(Approx), 2015-2020
- 4. Design of a modular FPGA accelerated Chip Multiprocessor Architecture Simulator sponsored by DST, PI: Dr. Basavaraj Talawar, at the cost of 26.9 Lakhs, 2016-2018
- 5. An automatic system for identification of phonological processes in children of age two and half to six and half years -DST, PI: sponsored by Shashidhar G. Koolagudi, Co-PI: Prof. Venkat Raja at the cost of 30.00 Lakhs, 2016-2019
- 6. Retinal cysts identification and quantification from low SNR optical coherence tomography scans using image processing techniquessponsored by DST (SERB EMR grant) PI: Dr. Jeny Rajan, Co- PI: Dr. Shashidhar G Koolagudi and Dr. Abhishek Kothari at the cost of 33.5 lakhs(Approx), 2017-2019
- 7. Development of Tool for Detecting of Application Layer Distributed Denial of Service Attacks on Web Applications-- sponsored by MEITY Government of India, PI: Dr. P.

- Santhi Thilagam at the cost of 29.78 Lakhs, 2017-2019
- 8. Characterization and identification of dialects in Kannada Language-sponsored by DST-Science & Engineering Research Board(SERB) PI: Dr. Shashidhar G. Koolagudi at the cost of 35 Lakhs, 2017-2020.

#### DEPARTMENT OF CHEMISTRY

- 1. INSPIRE-Faculty Project, 'Chemical fixation of carbon dioxide via transition metal catalyzed carboxylation reactions', Dr. Beneesh P B, DST, 35 Lakh,
- 2. High Performance Thermoelectric Materials via Band Engineering, Dr D. Krishna Bhat, SERB, DST, 26.76 Lakh, 2016-19.
- 3. Towards development of Low cost, nanoporous hollow fiber membranes for Haemodialysis application, Dr A. M. Isloor, VGST, Govt of Karnataka, 60 lakh, 2015-18.
- 4. Synthesis of polyoxometalatesnanoparticles Hybrid based Catalysts for alkane oxidation.
- 5. Dr. Sib Sankar Mal, SERB, DST, 23.55 Lakh, 2015-18.
- 6. Renewable Synthesis of Hydrocarbon Fuels and Specialty Chemicals from Cellulose-derived Angelica Lactone, Dr. Saikat Dutta, SERB, DST, 29 Lakh, 2016-19. Proteins at the Interfaces of Liquids, Dr. Debashree Chakraborty, DST-SERB, 55 lakh, 2016-19.

### DEPARTMENT ELECTRONICS AND COMMUNICATION ENGINEERING

- 1. Advanced Research Lab in RF Communications and Networks sponsored by DST, Govt. of India. Principal Investigator: Prof. Muralidhar Kulkarni and Prof. U. Shripathi Acharya; E&C Engg. at the cost of Rs. 116 Lakhs. (2016 to 2020).
- 2. Special Manpower Development Project on VLSI (SMDP-VLSI) phase-III – Chips-to-Systems

- National Institute of Technology Karnataka, Surathkal sponsored by (DIT) MCIT, Govt. of India. Principal Investigator: Prof. Ramesh Kini M. and Prof. T. Laxminidhi; E&C Engg. at the cost of Rs. 1.6 Crores. (December 2014 to December 2019).
- 3. Development and Performance Evaluation of Efficient tracking Algorithms for phased array radars in the presence of electronic counter measures sponsored by SERB-DST, Govt. of India. Principal Investigator: Dr. P. Srihari.; E&C Engg. at the cost of Rs. 13.1 lakhs. (2016 to 2019).
- 4. Compact multi-band antenna with independently controlled resonant frequency and polarization for mobile wireless applications sponsored by SERB-DST, Govt. of India. Principal Investigator: Dr. Krishnamoorthy K.; E&C Engg. at the cost of Rs. 44.22 lakhs. (2017 to 2020).
- 5. Development and real-time implementation of fully automated liver cancer detection system from H&E stained liver histopathological images sponsored by SERB-DST, Govt. of India. Principal Investigator: Dr. Shyam Lal; E&C Engg. at the cost of Rs. 10 lakhs. (2017 to 2020).
- 6. Automatic Multilingual Speaker Profiling & Forensics sponsored by SERB-DST, Govt. of India. Principal Investigator: Dr. Deepu Vijayasenan; E&C Engg. at the cost of Rs. 13.5 lakhs. (2017 to 2019).
- 7. Prognosis and diagnosis of osteoporosis and fracture risk assessment using image processing techniques sponsored by TEQIP II. Principal Investigator: Prof. Sumam David S.; E&C Engg. at the cost of Rs. 1.35 Lakhs. (2016 to 2017).
- 8. Design and Development of Smart Electrical Power Distribution and Water Management system sponsored by TEQIP-II. Principal Investigator: Prof. M. S. Bhat; E&C Engg. at the cost of Rs. 2.5 Lakhs. (2016 to 2017).

- 9. Design, Development and Commissioning of Automatic Warning System for Unmanned level crossings for Indian Railways sponsored by TEQIP II. Principal Investigator: Prof. U. Shripathi Acharya and Prof. T. Laxminidhi; E&C Engg. at the cost of Rs. 4.00 Lakhs. (2015 to 2017).
- 10.Intel Embedded Initiative sponsored by Intel Corporation. Principal Investigator: Prof. Sumam David S.; E&C Engg. at the cost of Rs. 5.3 Lakhs. (2011 to continuing).
- 11.Building capacity in teaching and collaborative research in sensor systems for public utilities sponsored by RAE, under Newton Bhabha Programme & FICCI, UK. Principal Investigator: Prof. M. B. Saidutta; Chemical Engg., Prof. M. S. Bhat; E&C Engg. and Prof. K. P. Vittal; E&E Engg. at the cost of Rs. 75 Lakhs. (March 2016 to February 2018).
- 12.Designing a System to measure moisture content of Cashew seeds both raw and processed sponsored by Kalbavi Cashews, Mangalore. Principal Investigator: Prof. U. Shripathi Acharya and Prof. T. Laxminidhi; E&C Engg. at the cost of Rs. One lakh. (2015 to 2018)
- 13. Study of Various Bias Estimation Techniques for Multi-sensor Multi-target Tracking sponsored by DRDO. Principal Investigator: Dr. Pathipati Srihari and Prof U. Shripathi Acharya at the cost of 10 lakhs. (2016-2017).
- 14. Uncoordinated Secure and Energy Aware Access in Distributed Wireless Networks sponsored by Information Technology Research Academy. Principal Investigator: Prof. U. Shripathi Acharya; E&C Engg. at the cost of Rs. 21.25 Lakhs. (01-01-2014 to 31-12-2017).
- 15. Energy Harvesting Seat sponsored by ANRC, Boeing. Principal Investigator: Prof. M. S. Bhat; E&C Engg. at the cost of Rs. 3.00 Lakhs. (2014 to 2017).

# DEPARTMENT ELECTRICAL AND ELECTRONICS ENGINEERING

- 1. Grid Interfacing of Solar Power Generation: Design, development, and Investigation on High-frequency Transformer Isolated DC-DC Soft-switching Resonant Power Converters, Sponsored by SERB, DST, PI: Dr. Nagendrappa H., Rs. 48.94 Lakhs, 2017-18.
- 2. Adaptive MPPT of Grid- tied Photovoltaic System using Magnetically Coupled Impedance Source Inverters, Sponsored bySERB, DST, PI: Dr. D. Jena Co-PI: Dr. Nagendrapa H., Rs. 24.36 Lakhs, 2017-2020.
- 3. Standalone Evaporative Air Cooler Pump flow and speed controller using solar energy, Sponsored by DST, Dr.B.Venkatesaperumal & Dr.A.Karthikeyan and Dr. M Arun (Mech) , Rs. 38.69 Lakhs, 2017 (2.5 years)
- 4. Solar water pump system, PI:Dr.B.Venkatesaperumal & Dr.A.Karthikeyan, Rs. 5 Lakhs, 2017 (1 year).
- 5. Project sanctioned under Newton -Bhabha funding scheme of Royal Acdemy of Engineering, UK and FICCI-NKFH on "Building Capacity Teaching and Collaborative Research in Sensor Systems for Public Utilities i. Electric Distribution System & ii. Water Distribution System", UK Partnership institution: University of Bermingham, PI: Prof. Panduranga Vittal K., Rs.40 Lakhs, 2016-2018.
- 6. Two Research scholarships to investigate in the areas of i. Sensing Techniques, ii. Super-efficient Motor Control, under "Visvesvarya PhD Scheme, GOI, MCIT, DEITY.PI: Prof. Panduranga Vittal K., Rs.40 Lakhs, 2015 2020.
- 7. Establishing center of excellence (CoE) in "Renewable Energy Source integrated Smart Grid Technologies (RENEST)" Frontier Areas of Science and Technology (FAST), MHRD, GOI. PI: Prof. Panduranga Vittal K.,Rs.400 Lakhs (Sanctioned

- Rs.250 Lakhs under Phase 1) ,2014-2018.
- 8. Rainwater harvesting off the terrace of a high-raised building in coastal areas for micro-hydro power generation and utilization of rain water to augment the existing power and water supply facilities of NITK Surathkal.,NITK-IRG, PI: Nagendrappa H., Rs. 5.0 Lakhs2017-2018.
- 9. A harmonic elimination scheme with reduced switching losses for a 3-phase Open-end winding Induction Machine using only conventional two-level inverters in the entire modulation range. Sponsored by SERB, PI: Dr. Sheron Figarado, Rs. 28 Lakhs, 2017-18.
- 10.Development of Cost Effective Magneto-Rheological (MR) Fluid Damper in Two wheelers and Four Wheelers Automobile to Improve Comfort and Stability, Sponored by Ministry of Road, Transport and Highways, Hemantha Kumar, Dept of ME, NITK, Co-PI: 1) Sujatha C., IITM, Chennai, 2) Gangadharan K. V., Dept of ME, NITK, 3) Sharnappa Joladarashi, Dept of ME, NITK, 4) Sandesh S., Ashok Leyland Ltd., 5) Sheron Figarado, Dept of EEE, NITK, 6) Mohammad Rizwanur Rahman, Dept of MME, NITK, 87) Raja Sekaran.S. Rambal Ltd, Rs. 355 Lakhs, 2017-2020.
- 11.Investigation on the Operation & Control of Multiple Distributed Generation resources in a Microgrid (Phase-II). Ministry of Power, Govt. of India through, Central Power ResearchInstitute Bangalore(CPRI). Dr. D. N. Gaonkar (PI), Dr. D. Jena (co-PI), Rs.25 Lakhs July 2016 to March 2018.
- 12. Standalone Evaporative Air cooler Pump flow and Fan speed controller using solar energy DST PI Dr.B. Venkatesaperumal. Co-PIs-Dr. A. Karthikyen(EEE), & Dr.M. Arun (MECH)., Rs 38,69,800 2017-18.
- 13. Center of Excellence in Smart Gird Technologies, Sponosred by MHRD,

National Institute of Technology Karnataka, Surathkal PI:Prof. K.P. Vittal,, Dr. Manjunatha Sharaman K. Rs.250 Lkahs, 2014-18.

# DEPARTMENT OF INFORMATION TECHNOLOGY

- 1. MIS for Academic, Administrative and Financial Activities of NITK Surathkal. Principal Investigator: Prof. G. R. M. Reddy, Prof. Ananthanarayana V S, Dr. Shyam S Kamath, Rs. 54 Lakhs, April 2017 -April 2019
- Smart HCC: Automated Health Care Centre Activities, Principal Investigator: Prof. G. R. M. Reddy, Prof. T. P. Ashok Babu, Rs. 5.0 Lakhs June 2017 - June 2018
- 3. Technical Document Analysis and Recognition Using NLP and ML Techniques. Principal Investigator: Prof. G. R. M. Reddy, Samyak Jain, Vivek Bhat, Rs. 3.6 Lakhs, July 2017 - July 2018
- 4. Edge and Fog Computing Framework for Smart City, Principal Investigator: Prof. G. R. M. Reddy, Mr. Natesha B V, Rs. 25 Lakhs, July 2016-July 2021
- 5. Academic Centric Student Information System ACSIS, Principal Investigator: Prof. Ananthanarayana V.S., S3,68,000, 2016 18
- 6. Visvesvaraya PhD Scheme for Electronics & IT, Media Lab Asia under Ministry of Electronics and IT, GoI. Principal Investigator: Prof. Ananthanarayana V.S (Nodal Officer) Rs. 1009.2516 Lakhs, 2014 2020.
- 7. A Framework for Deep Learning based Analytics for Intelligent Healthcare Applications. DST-SERB (Early Career Research Grant), Principal Investigator: Dr. Sowmya Kamath S, Rs. 35 Lakhs, Jun 2017 Jun 2020

# DEPARTMENT MATHEMATICAL AND COMPUTATIONAL SCIENCES

1. Efficient Regularization methods for ill-posed Operator Equations and their Applications: Principal

Investigator: Santhosh George, Dept. of MACS, at the cost of 18.5 lacs, Core Research Grant by SERB, Department of Science and Technology, Govt. of India, EMR/2017/001594( June 2018 to May 2021).

# DEPARTMENT MECHANICAL ENGINEERING

- 1. Principal Investigator: Dr. Hemantha Kumar, NITK :Co -Investigators:- 1) Prof. C.Sujatha, Dept. of Mechanical Engineering, IIT Madras 2) Prof. K.V.Gangadharan, Dept. of Mechanical Engineering, **NITK** 3) Dr. Sharnappa J., Dept. of Engineering, Mechanical 4) Dr. Mohd.Rizwan Rahman, Dept. of Material and Metallurgy Engg. NITK 5) Dr. Sheron F. Dept. of Electrical and Electronics Engg. NITK 6) Dr. Sandesh S. Senior Manager, Ashok Leyland Chennai 7) Mr.Rajasekharan, Scientific Advisor, Rambal Ltd. Development of Cost Chennai. Effective Magneto-Rheological (MR) Fluid Damper in Two wheelers and Four Wheelers Automobile to Improve Ride Comfort and Stability 2017-2020, 3.55Cr, Ministry of Road Transfer and Highways, Govt. of India. Ministry of Human Resource Development, Govt. of India. Ongoing
- 2. Dr. Sharnappa J and Dr. Hemantha Kumar, Experimental Investigation of Passive, Semi-Active and Active Vibration Control of Composite Sandwich Structure., 2017-2020, 51.5Lakhs, DST, Govt. of India, Ongoing
- 3. Sathyabhama A,Experimental and Numerical Investigation of Effect of Leading edge Protuberances on the Performance of Wind Turbine Blade,2016-2019, 66lakhs,SERB,Ongoing
- 4. Dr. S C Kattimani and Dr. S M Murigendrappa, Experimental characterisation and numerical modelling of delamination growth in

- National Institute of Technology Karnataka, Surathkal Fiber Reinforced Polymer laminated composites under cyclic loading,2016-2019,2684000,DST-SERB,Ongoing
- 5. Dr. S M Murigendrappa And Dr. S C Kattimani, An Experimental And Theoretical Investigation On Narrow Thermal Hysteresis Of Cu-Al-Be Based Sma Actuator For Vibration Isolation, 2016-2019, 1647800, Dst-Serb, Ongoing
- 6. Dr. S C Kattimani, Active Vibration Control Of Laminated Composite Sandwich Plates Inhygrotehrmal Environment Using 1-3 Piezoelectric Composites, 2018-2021, 47.90 lakhs, Dst-Serb, Ongoing
- 7. Buckling and Free Vibration Characteristics of CNT reinforced Nano Composite Plate under Nonuniform Heating2018-202016 LakhsDRDO-ARDBOngoing
- 8. Dr. GandhamPhani Kumar (IITM), Dr. Srikanth Bontha (NITK) and Dr. Dheepa Srinivasan (GE Power)Understanding the Evolution of Residual Stress During Repair and Refurbishment of Gas Turbine Components via Laser Additive Manufacturing 2018-2020,66 Lakhs,UchchatarAvishkar Yojana (UAY),Sanctioned
- 9. Dr. MrityunjayDoddamani, Dr. Srikanth Bontha and Dr. Vamsi Krishna Balla Development of Composite Filament for Lightweight 3D Printed Components 2016-2019,33 Lakhs,DST-TECHNOLOGY SYSTEMS DEVELOPMENT PROGRAMME (TSDP)Ongoing
- 10. Experimental Investigation On Pulsating Synthetic Jet Micromixers To Determine The Injection Dynamics Of Insulin In Hydrogels For Subcutaneous Drug Delivery2017-2020 32.67 Lakhs Dst-Serb Ongoing
- 11. Dr. Narendranath S.Investigation of machining characteristics of TiNi based shape memory alloys using Wire-EDM2014-201818.11 lakhsDST-SERBCompleted
- 12. Dr. Ranjith M Investigations on the dynamic behaviour of bacterial helical flagellar filaments under

axial flow 2017-202021 LakhsDST-SERB Ongoing.

# DEPARTMENT OF MINING ENGINEERING

- 1. "Investigations in to the Reduction of Phosphorous in Iron Ore Using Microwave Technology for its Suitability to the Iron & Steel Industries", R. Praveen Chandra, Mine Owner & Entrepreneur (ERM Group), Bangalore, 2017-2010. (Sanction order no. RPC/NITK/2017-18/170 dated 18/08/2017: Rs.10.06 lakhs)
- 2. "Development and Characterizations of Advanced Cells", Sponsored Solar Karnataka Science and Technology Promotion Society, Bangalore 2017-2010. (Sanction order KSTEPS/VGSTno. CISEE/2017/271 dated 21/11/2017: Rs. 30 Lkahs)
- 3. Principal Investigator R&D Project on "Impact of Work Conditions and Personal Attributes on Performance of Coal Miners: An **Empirical** Investigation", Sponsored by NITK-Surathkal under TEQIP-II, Rs. 3Lakhs (2016-2017).

# DEPARTMENT OF METALLURGICAL & MATERIALS ENGINEERING

- Corrosion and Impedance study of Ti-Nb alloy forms developed by PM techniques sponsored by DST-SERB, Principal Investigator: **Dr. S. B. Arya,** Dept. of Met & Matls. Engg. at the cost of Rs.18.81 lakhs (Period: 2015-17)
- 2. All solution processed transparent low temperature synthesized Indium Zinc Tin Oxide based high performance thin film transistors for active matrix displays sponsored by DST-SERB, Principal Investigator: **Dr. Saumen Mandel,** Dept. of Met & Matls. Engg. at the cost of Rs.21 lakhs (Period: 2016-18)

3. Augment the Research Facilities in the Department (i) X-Ray Diffractometer with Accessories, (ii) Field Emission Scanning Electron Microscope sponsored by DST - FIST, Principal Investigator: **Dr. Udaya Bhat K.** & **Dr. M. R. Rahman,** Dept. of Met & Matls. Engg. at the cost of Rs.297 lakhs (Period: 2018)

#### DEPARTMENT OF PHYSICS

- DST-FIST Research facility for Physics Department, Principal Investigator: Dr. H.S. Nagaraja, Physics Department at the cost of Rs. 65 Lakhs (2013-2018)
- DST-SERB-Si Electrodes for Li ion battery: Principal Investigators Dr. H.S. Nagaraj and Dr. Ajith K.M. Physics Department at the cost of Rs. 37 Lakhs (2015-2018)
- 3. Atomistic Modeling of metal organic compounds: towards molecular spintronics, Principal Investigator **Dr. Kartick Tarafder** Physics Department at the cost of Rs 12 Lakhs (2016-2019)
- Dynamics of Low Energy Antifibrillation pacing: Unpinning pinned rotating waves using far field electric pulses. Principal Investigator: Dr. T.K. Shajahan; Physics Department at the cost of Rs. 30 Lakhs (2017-2020)
- 5. Transition Metal Oxide Based Devices for Nonvolatile Resistive Random Access Memory Applications. Principal Investigator: **Dr. Partha Pratim Das**, Physics Department at the cost of Rs. 37 lakhs (2017-2020)

#### SCHOOL OF MANAGEMENT

- Project title A Study of Adaptation to Technological Innovation in Agriculture to Mitigate Climate Change Effects and its Impacts on Rural farmers
- Project Title Coffee Certification and Food Security in Arakku valley in India

### 13.2 PROPOSED PLAN FOR RESEARCH

# DEPARTMENT OF CHEMICAL ENGINEERING

### Submitted proposals:

- 1. Proposal with Dr. Prasanna B.D, NITK and in collaboration with Prof. Rintu Banerjee, IIT Karagpur on 'Fibrinolytic enzymes production and purification' was submitted to the scheme 'Imprint II'
- 2. Proposal with Dr. GN Kumar and Dr. Gnanasekaran, NITK surathkal in collaboration with Dr. Krishnan Associate Professor, Murugesan, Indian Institute of Technology Roorkee, "Design on development of portable hvbrid energy production unit to synergistically produce electricity and biofuels by utilizing solar energy and non-edible oil' was submitted to the scheme 'Imprint II'.
- 3. Dr Vidhya Shetty K, Deparment of chemical Engg. Submitted imprint proposal on, "Design and development of a solar photocatalytic, flow through water

disinfection unit using Ag@TiO<sub>2</sub> based nanocomposites as photocatalysts for community based application" in collaboration with IIT Bombay and Vijaya industries, udupi.

#### New Labs/Equipment

Establishment of Energy material Laboratory

# Target for sponsored R&D projects:-

Soot Oxidation activity, Electrolyte material, SOFC, Mass Transfer in Nanofluids; Photocatalytic reduction of CO<sub>2</sub>

#### DEPARTMENT OF CHEMISTRY

**New Labs/Equipment:-** Membrane Technology Laboratory. Surpass Electrokinetic analyzer, K-coater, Salinity testing unit, Hollow fiber spinning unit, Rotovapor

# DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

### Target for Sponsored R&D projects:-

Project on Bio-Mechanics from IMPRINT Hand-held Doppler signal analysis from Karnataka State Govt. Projects from DRDO and LRDE.

#### New Areas of Research:-

Bio-Mechancis

# DEPARTMENT OF CIVIL ENGINEERING

Investigator Funding Amount Name

**Dr. Anjana** DST

Bhasi

**Dr. BBD** DST & KIOCL

**Dr. Talla** Imprint

# DEPARTMENT OF MATHEMATICAL & COMPUTATIONAL SCIENCES

"Operator Valued Frames" sponsored by DST; Area of research is Functional Analysis; Future collaboration with IIT Chennai

# DEPARTMENT OF MECHANICAL ENGINEERING

- Dr. Prasad Krishna, Dr. Sudhakar Jambagi, Development of Fly ash CNT reinforced Thermally Sprayed Coatings for Marine Structures for enhanced resistance to fouling, erosion and corrosion.
- Dr. Prasad Krishna, Virtual Prototyping Platform for Product Development
- Dr. Prasad Krishna, Effect of Geometry on Interfacial heat Transfer Coefficient at Metal-mold interface in Permanent Mold casting processes
- Dr. Prasad Krishna, Modeling of Residual stresses in Laser Surface Melting of TiAl Alloys
- Dr. Jeyaraj Pitchaimani, Vibroacoustic analysis of sandwich panels under thermal loading
- Dr. Jeyaraj Pitchaimani, Development of biodegradable composite

- Dr. Srikanth Bontha, Computational Modeling of Laser Additive Manufacturing Processes
- Dr. Arumuga Perumal, Lattice Boltzmann simulation of NEMS devices
- Dr. Ranjith M, Design and analysis of microfluidic sperm sorter using CFD
- Dr. Ranjith M, Analysis of RBC migration and deformation under viscous flow using Immersed Boundary Method
- Dr. Hemantha Kumar, Characterization of Magnetorheological Monotube damper through Experimental and Computational Analysis
- Dr. Experimental and Theoretical Investigation on Fatigue Crack Growth Rate of Similar and Dissimilar Aluminium Alloy Joints Produced by Friction Stir Welding
- Dr. Hemantha Kumar, Condition Monitoring of Face Milling Tool using Vibration and Sound Signals Analyses
- Dr. Hemantha Kumar, Investigations on the use of Magnetorheological
  - Fluid and Magnetorheological Elastomer in Structural Vibration Control
- Dr. Hemantha Kumar, Condition Monitoring of IC Engine using Online and Offline Monitoring Techniques
- Dr. Hemantha Kumar, Magnetorheological (MR) Fluid Damper Development for Vehicular Applications
- Dr. Hemantha Kumar, Synthesis and Characterization of Magnetorheological Fluids for Different Engineering Applications
- Dr. Hemantha Kumar, Vibration Analysis of Fully and Partially Treated Sandwiched Cantilever Beam with Magnetorheological Fluid

National Institute of Technology Karnataka, Surathkal

- Dr. Hemantha Kumar, Dynamic testing and Characterization of Friction Damper
- Dr. Hemantha Kumar, Tool Vibration Control by Magnetorheological Damper
- Dr. Hemantha Kumar, Study of vehicle dynamics of a four wheeler with MR Damper
- Dr. Hemantha Kumar, Design and control of MR Damper for prosthetic application
- Dr. Ramesh M R, Development of thermal spray coatings for tribological applications
- Dr. Srikanth Bontha, Laser Processing of Mg Alloys
- Dr. S. M. Murigendrappa, Design and Development of Vibration Actuator using SMA
- Dr. Anish S, Novel stent design for human carotid artery
- Dr. Anish S, Purge flow in turbine cascade
- Dr. Anish S, Overspray in gas turbine engine

# DEPARTMENT OF INFORMATION TECHNOLOGY

**New Labs/Equipment**: Smart Healthcare, Green Cloud Datacenter, Edge/Fog Computing

Target for Sponsored R&D projects: DST-SERB

**New Areas of Research**: Internet of Things, QoS Aware Energy Efficient Datacenters, IoT for Smart City/Smart Building /Smart Home/Smart Classroom

Institutions/organizations for future collaborations: TCS Innovations Lab, IBM Cloud Centre of Excellence and CLOUDS LAB, Melbourne University.

# DEPARTMENT OF MINING ENGINEERING

One R&D project on 'Study of Human Body Vibration in Surface Mines' will be communicated to SERB under High Risk High Reward category.

### DEPARTMENT OF METALLURGICAL AND MATERIALS ENGINEERING

### New Labs/Equipment:

- 1. Surface Engineering Laboratory
- 2. Facility for assessment of health of quenchants
- 3. High performance workstation
- 4. Intel Fortran compilers

### Target for Sponsored R&D projects:

- 1. To get at least one sponsored R&D project per year
- 2. DST Start up grant
- 3. BARC Young scientist start-up grant

#### New Areas of Research:

- 1. Surface Engg.
- 4. Smart Materials
- 5. Data base on liquid Quenchants
- 6. Wetting/dewetting of liquids
- 7. Hydrodynamic stability
- 8. Shape Memory Alloys

#### DEPARTMENT OF PHYSICS

**New Labs/Equipment:-** CCD Camera, LabView Software, High end compute cluster and VASP software, Solar Simulator, Mask Aligner.

Target for sponsored R&D projects:-Medical industry, Hospitals (Manipal), Defence (DRDO), Energy sector (ISRO)

**New areas of Research:-** Plasmonics sensors, Terahertz components and devices (in collaboration with SAMEER, Mumbai and IIT Bombay)

### SCHOOL OF MANAGEMENT

**New areas of Research:-** Climate Change Adaptation in agriculture, Energy and Environment.

### MAJOR EQUIPMENT/FACILITIES

# DEPARTMENT OF COMPUTER ENGINEERING

- HP Desktop Computer Systems Core I7, 8GB RAM, 500GB Hard disk
- HP Prodesk 600 G3MT Desktop Computers – Intel Core i5, 8GB RAM, 1TB Hard disk
- 3. Dell-R740 Dell Power Edge R740 Server with 192GB RAM FFSKLN2

# DEPARTMENT OF MECHANICAL ENGINEERING

- Vacuum Arc Melting Furnace, Image Analyzer, Universal Testing Machine, Wire Electro Discharge Machine, Vickers Hardness Tester, Double headed Rolling Machine
- Electromagnetic shaker (100kgf, 50kgf, 25kgf), Horizontal slip table, VTS electro-dynamic shaker (25lbs), Gauss meter, Electro magnets (1.5 Tesla), Impact hammer, Single and tri-axial accelerometers, Data acquisition system(NI, HBM), Microphone and SLM, MicroEpsilon Laser displacement pickups, ADAMS, NASTRAN, PATRON, MARC, DITRON, ANSYS, Devitron, Labview
- Lego Robotic Kit, Firebird, Basic Electronic Components, DC Motors, Connecting Pins, Wires, LEDs Berg Strip, and Bread Board, Quadcopter kit, Wall Following Robot
- Linear Measurements: Vernier Caliper, Vernier Depth Gauge, Vernier Height Gauge
- Micrometer: External Micrometer, Internal Micrometer, Jaw Type Inside Micrometer, Caliper Type Inside Micrometer, Depth Micrometer, Bench Micrometer, Digital Micrometer, Telescopic Gauge
- Measurement Using Slip Gauge: Calibration of Micrometer, Vernier Caliper, Calibration of Height Gauge, Snapgauge, Ring Gauge and Plug Gauge, Measurement of Mean Distance between Surface and Spacing between Holes, Measurement of Dovetail Angle and Checking the Taper Angle of Taper Plug Gauge, Checking An Angle Plate, Study On Limit And Position Gauges

- **D.Linear and Angle Measurement:** Combination Set.
- **E.Angle Measurement:** Universal Bevel Protracter, Sine Bar
- F. Flatness And Straightness Measurement: Clinometer
- G. Screw Thread Measurement:
  Screw Pitch Gauge, Screw Thread
  Micrometer, Effective Diameter
  Measurement Using Two Wire And
  Three Wire Method.
- **H. Gear Tooth Measurement:**Vernier Gear Tooth Caliper, Tooth
  Span Micrometer
- Study On Opto-Mechanical Instruments: Tool Makers Microscope, Measurement Using Comparator
- J. Surface Roughness Measurement: Surface Roughness Meter (SJ 301)
- Micro heat pipe test rig, Vapour pressure determination test rig, Weather simulation chamber & Window air conditioner test rig, Thermoelectric refrigeration test rig, 2 Stage VCR test rig with intercooler, Condenser pressure variation VCR test rig, Vortex tube refrigeration test rig, Air engine test rig
- MEMS Sensors, Scanning Tunneling Microscope, Self Build Kit, Atomic Force Microscope, Comsol and Intellisuite (Courtesy: NMDC), Sugar
  - Toolbox and MATLAB (Institute Network)
- Free convection heat transfer, Heat transfer through composite walls, Water cooling tower, Shell and tube exchanger, Measurement heat of thermal conductivity of metal rod, Measurement of thermal conductivity Computerized solids, compression refrigeration test rig, Peristaltic pump model, Air conditioning test rig, Vapor compression refrigeration test rig, Heat pipe demonstrator, Heat transfer through extended surfaces, Measurement of emissivity of metal surfaces, Heat transfer through lagged pipe, Heat transfer through Forced Computerized convection, conditioning test rig, Boiling heat transfer apparatus, Film and Drop

- National Institute of Technology Karnataka, Surathkal wise condensation, Ice plant tutor, Parallel flow heat exchanger, Plate Heat exchanger, Heat pump setup, Fluidized Bed system, Refrigerator, Natural convection, Critical Heat flux apparatus
- Kinematics of Epicyclic Gear, Kinematics of Cam Mechanism, Kinematics of Gear Train, Kinematics of Slider Crank Mechanism, Spring Mass System, Transmissibility Apparatus, Fre e Vibration of beam, Experimental Modal Analysis
- Trainer Lathe, Trainer Milling Machine, Electro Pneumatic Trainer Kit with Cylinders and Control valves
- MMM Vertical 4- Stroke Diesel Engine, Textool 2- Stroke Vertical Diesel Engine, Textool 4- Stroke Vertical Diesel Engine, Valve and Port Timing Diagrams, Compression Ratio of given IC Engines (b) Morse Test, Computerized multi-cylinder MPFI Gasoline engine, Computerized Single cylinder DI Diesel Engine, Exhaust Gas Analyzer, Hydrogenfuelled SI Engine test rig, CRDI Diesel Engine test rig, Kirloskar Diesel Engine test rig
- Boys gas Calorimeter set(Calorimeter+ gas flow meter (0-1000ml), Saybolt Viscometer, Redwood viscometer, TAR Viscometer(Redwoodviscometer,InstechC alorimeter,Flashpoint tester (Close-up),Barometer with room, temperature no.597,Digital weighing machine (0-10grams),Saybolt Viscometer(old),Bomb Calorimeter,Cleveland Flash & fire point apparatus,Weighing machine (0-2 kg)
- Spring mass system, Whirling shaft apparatus, Motorised gyroscope apparatus, Digital weighing machine (0-50kgs), Physical balance, Dead weight tester (0-35kg), Digital dead weight tester (0-60kg), Digital dead weighttester(0-

250kg), Planimeterset, Thermo-Hygrograph H-10/100%, Computerised Emission test set up, Single stage spur gear, Single stage spur gear with intermediate,Two stage gear, Three stage spur gear, Three speed reverse gear, Wormgear, Bevelgear, Rack and quadrant gear drive, Reversing gear, picyclic gear

- planet),Cycloidal motion, Internal rolling gear drive,Internal gear and pinion drive spur gear
- IRIS CAR (Lab Car), with Breakout box, ECU, Injector Box, Wire harness, Communication Module,DC Power Supply,Function Generator, Oscilloscope, Cut Section Models
- Center Lathe, Heavy duty Center Lathe, Geared head Center Lathe, Shaping machine, Universal Milling Machine, Heavy duty piller type drilling machine, Light duty piller type drilling machine, Pedestal grinding machine, CapstonLathe
- Surface Grinding Machine, Cylindrical Machine, Capstan Lathe, Grinding Horizontal Milling Machine with Vertical attachment, Broaching Machine, Light Duty Shaper, Heavy Duty Shaper, Slotting Machine, Planner, Cutter, Grinding Machine, Heavy Cylindrical Grinding Machine, CNC Milling Centre, CNC Turning Centre, Heavy Duty Shearing Machine, Hydraulic Press, Heavy Duty Radial Drilling Machine, Hydraulic Machine, Universal Radial Drilling Machine, Centre Milling Lathe, Hydraulic Compressor
- Wood turning lathe, Circular saw, Carpentry bench vise and table
- Bench vise with table, Surface plate, Anvil, Power Tool, Drilling set and accessories, Saber saw, Jig saw, Hot air gun, Tappers, Nibbler, Shearing machine, Grinding machine, Circular saw, Impact wrench, Battery operated drill, Blower, Eccentric sander, Router machine, Wood planner, Jig saw, Hammer drilling, Core cutter drilling machine
- Soldering table, Bench vise, Shearing machine
- Subsonic wind tunnel
- Experimental Modal Analysis, Tuned Impulse Hammer, Modal Analysis Software, Forced Vibration Analysis, Minishaker with controller
- Moulding facility
- Pin on Disc Tribometer, Metallurgical Sample Saw, High Temperature Tubular furnace, Ball mill, Disc Polishing

National Institute of Technology Karnataka, Surathkal Machine, Microscope, sigma Z blade mixer

- Free and focred vibration setup with controller, Impact hammer, Tri-axial accelerometer, Electrodymnamic shaker, Analyzer, closed loop controller, force sensor, impedence head
- Low speed compressor cascade test facility, Low speed turbine cascade test facility, Centrifugal blower test rig
- Desiccant analysis test rig 3-D Printing, Material Extrusion, Fused Deposition Modeling based 3-D Printer, Single Screw Extruder

### New Labs/Equipment:-

- Mechanism Design Laboratory
- Microfluids and Nanofluids Laboratory
- Biophysics Laboratory
- Automation Technologies (Lab I)
- Automation Technologies (Lab II)
- Advanced Manufacturing Laboratory
- Light Weight Materials Laboratory
- Sample Preparation Laboratory
- Multiphase Fluid Dynamics Laboratory
- Additive Manufacturing Laboratory
- Boiling Heat Transfer Laboratory
- Solidification Simulation Laboratory
- Foundry Laboratory
- Advanced Heat Transfer Laboratory
- Solar Energy Laboratory
- Welding Laboratory
- Advanced Fluid Mechanics Laboratory
- Computational Mechanics Laboratory
- Vehicle Dynamics Laboratory
- Smart Materials Laboratory
- Computational Fluid Dynamics Laboratory
- Combustion Laboratory
- Renewable Energy Laboratory
- Design Innovation Centre
- Fist Composite Centre
- Functional Materials Laboratory
- Manufacturing Laboratory
- Advanced Machining Division
- Melting Section
- Materials Testing Section
- Corrosion Engineering Laboratory
- Pyrolysis, Gasification and Torrefaction Laboratory

# DEPARTMENT OF MINING ENGINEERING

Human Vibration Meter & Analyser with Accessories Rs.399777.00

Total station, NOVA DGPS

# DEPARTMENT OF METALLURGICAL & MATERIALS ENGINEERING

### Sl. No. Name of the Equipment

- Dynamic Control Angle Analyzer
- Form Talysurf Intra with Ultra Software with accessories
- 3 Digital Image Analysis System Camera Adopter
- 4 Heating Stage
  Temperature upto 1500°C
  (Furnace)
- 5 Jeol Model SEM
- 6 Tensile Testing Machine fully Computerized
- 7 Melt Flow Indexer
- 8 Dage 4000 Plus Bond Tester & Image Capture System
- 9 Joel High Resolution Transmission Electron Microscope (TEM)
- 10 EDS System for Jeol TEM
- 11 Bottom Mount Camera (TEM)
- 12 Jasco FTIR Spectrometer
- 13 Portable Quenchanct Test System with Quench Probe & Thermocouple Heating Furnace
- 14 Universal Testing Machine of 30 KN Capacity with Accessories
- 15 Salt Spray Bath
- 16 Shimadzu Micro Vickers Hardness Tester
- 17 Magnetic Sputtering PVD Unit
- 18 Scratch Hardness Tester Linear Tester
- 19 Low Temperature Ion Milling System with Accessories for TEM

- 20 Tensile Tester with Accessories
- 21 SP-150 Potentiostat Galvanostst Chassis along with accessories
- 22 Trinoculor Reflected Light Microscope with Digital Camera
- 23 Differential Scanning Calorimeter

#### DEPARTMENT OF PHYSICS

- 1. High power Nd:YAG laser
- 2. Jobin Yvon Spectrometer
- 3. Physical Deposition Units
- 4. Spray Pyrolysis Units
- 5. Photoluminescence Spectrometer
- 6. X-ray Diffractometers

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- 43. Shivaram M. J., **S B Arya**, J Nayak, Fabrication and Mechanical Properties of Porous Ti-20Nb-5Ag alloy for Biomedical Application, NMD-ATM-2017, Goa, November 2017.
- 44.T. Baskaran, **SB Arya**, Oxidation behavior of Sm<sub>2</sub>SrAl<sub>2</sub>O<sub>7</sub> ceramic thermal barrier coatings for gas turbine applications, NMD-ATM-2017, Goa, November 2017.
- 45. Shivaram M. J., **SB Arya**, J Nayak, Bharat B Panigrahi, Electrochemical Impedance Spectroscopy and In-vitro Corrosion Behaviour of Porous Ti-20Nb-5Ag Alloy in Simulated Body Fluids, The 6th Asian Biomaterials, Trivandrum, Kerala, October 2017.
  - 46. Shivaram M. J., **S B Arya**, J Nayak, Bharat B Panigrahi, Influence of Ball Milling Time on Mechanical Properties of Newly

- Developed Porous Ti-20Nb-5Ag Alloy, 19th International Conference on Powder Metallurgy and Particulate Technology, Paris, France, September 2017.
- 47. Gajanan Anne, M R Ramesh H Shivananda Nayaka, **SB Arya,** Microstructure, mechanical and corrosion properties of accumulative roll bonded Mg-2% Zn/anodized Al-7075 composite, Int. Conf. on Emerging Trends in Materials and Manufacturing Engg, NIT Thiruchirapalli, 2017.
- 48. Komalakrishna H, Shine Jyoth T.G, Biswanath Kundu, **Saumen Mandal,** Low Temperature Development of Nano Hydroxyapatite from Austromegabalanus psittacus, Star fish and Sea urchin, Materials Today: Proceedings 4 (2017) 11933–11938.
- 49. Palaksha Acharya, Ajit Kumar & Ravishankar K. S., Microstructure and Wear Behavior of Austempered High Carbon High Silicon Steel, *MATEC Web of Conferences* (Vol. 144, p. 02013). EDP Sciences Publishing, 2018.
- 50. Sangamesh Rajole, Kumar, K. S. Ravishankar, and Kulkarni, S. M. Mechanical Characterization and Finite Element Analysis of Jute-Epoxy Composite, **MATEC** Web Conferences, vol. 144, p. 02014., EDP Sciences Publishing, 2018.
- 51. Sangamesh, **Ravishankar, K. S.**, and S. M. Kulkarni, Ballistic Impact Study on Jute-Epoxy and Natural Rubber Sandwich Composites, Materials Today: Proceedings 5, no. 2: 6916-6923, Elsevier publishing, 2018.
- 52. Sangamesh, **Ravishankar, K. S.,** and S. M. Kulkarni, Impact Analysis of Natural Fiber and Synthetic Fiber Reinforced Polymer Composite, AIP Conference Proceedings 1953, 130003, AIP publishing, 2018.

#### **DEPARTMENT OF PHYSICS**

1. E. Veena\*, Kasturi V. Bangera, G.K. Shivakumar "Influence of zinc

- National Institute of Technology Karnataka, Surathkal precursor concentration on properties zinc sulphide thin films using spray pyrolysis technique", FCSPTC-2017, Andhra Pradesh, India, 7–8 April 2017, AIP Conference Proceedings, Vol. 1859, Issue 1, pp. 020115 (2017)
  - 2. Amudha A, H.D Shashikala, H.S Nagaraja," Electrochemical corrosion behaviour of nickel chromium-chromium carbide coating by HVOF process" AIP Conference Proceedings, Volume 1943, Issue 1, id.020092, Doi no: 10.1063/1.5029668
  - 3. S. P. Bharath\*, Kasturi V. Bangera, G.K. Shivakumar, "Preparation of ZnO:Cd thin films for acetone sensor applications", ICTF 2017, New Delhi, India, 13–17 Nov. 2017, pp. 174.
  - 4. P. P. Das, A. Jones, M. Cahay, Sterin N. S., S. Kalita, Yadunath T. R., Advaitha M., S. T. Herbert, "The realization of an all-electric semiconductor Datta-Das spin field effect transistor", Proceeding of The XIX International Workshop on The Physics of Semiconductor Devices (IWPSD 2017), IIT Delhi, India, Dec 11-15, 2017
  - 5. Sterin N. S., S. S. Mal, P. P. Das, "Resistive switching in Na6V10O28 polyoxometalate thin film based two terminal device", International Conference On Recent Advances in Materials Science and Biophysics (RAMSB 2018), Mangalore University, India, Jan 23-25, 2018
  - S. Kumari, S. S. Mal, P. P. Das, "Graphene oxide-polyoxometalate composite materials for energy harvesting", International Conference On Recent Advances in Materials Science and Biophysics (RAMSB 2018), Mangalore University, India, Jan 23-25, 2018.
  - 7. KS Bhat, HS Nagaraja, "Twodimensional nickel hydroxide nanosheets as high performance pseudo-capacitor electrodes", AIP

- Conference Proceedings 1943 (1), 020057 (2018)
- 8. Amudha A, H.D Shashikala, H. S Nagaraja," Characterization of Hydrothermally Synthesized Alumina - Graphene Oxide Composite", International Conference on Nanotechnology: Ideas, Innovations and Initiatives-2017(ICN:3I-2017), 06-08 December 2017.
- 9. Amudha A, H.S Nagaraja, H.D Shashikala," Electrochemical corrosion behaviour of nickel chromium-chromium carbide coating **HVOF** process", bv International conference on Design, Materials and Manufature2018. ICDEM-2018, 29-31 January. Conducted by NITK Surathkal
- 10. Pranitha Sankara,, H. D. Shashikala, Reji Philip
  "Ion dynamics of laser produced aluminium plasma at different ambient pressure", International Conference On Laser Ablation (COLA -2017), September 2017
- 11. Pranitha Sankara, H. D. Shashikala, S.S. Harilal, Reji Philip, "Effect of beam spot size on the dynamics of ultrashort laser produced plasma generated in vacuum", 45th IEEE International Conference on Plasma Science (ICOPS 2018),
- 12.Akhila B Edathazhe, H.D. Shashikala, "Optical properties of BaO added bioactive Na2O-CaO-P2O5 glasses", International Conference on Design, Materials & Manufacture (IcDeM 2018), NIT Karnataka, India, AIP Conference Proc. 1943, 020072, 1-7, DOI: 10.1063/1.5029648
- 13. Ahmed Rizwan C.L, Deepak Vaid, "Second order phase transition in thermodynamic geometry holographic superconductivity in low-energy stringy black holes", 2nd International Conference on & Condensed Matter **Applied** Physics (ICC 2017), Govt. Engineering College, Bikaner, Rajasthan during November 24-25, 2017.

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- 14. Ahmed Rizwan C.L, Rajani K.V, Deepak Safir.T.K, Vaid, "A comparative study: Cosmological BCS mechanism and Holographic superconductivity", 29th meeting of the Indian Association for General Relativity Gravitation (IAGRG), IIT and Guwahati, 18 - 20 May, 2017
- 15.Deepak Vaid,"Gravity as а Condensate of Gauge Fields: Superconducting and Antiferromagnetic Phases ofSpacetime", **IAGRG** 29. IIT Guwahati, 18 - 20 May, 2017
- 16.Deepak Vaid,"Connecting LQG and String Theory: From Quantum Geometry to the Nambu-Goto Action (based on arXiv:1711.05693)", 6th Tux Workshop on Quantum Gravity, Tux, Austria, Feb 19 Feb 23, 2018
- 17.M. S. Manju, K. M. Ajith, M. C. Valsakumar," Uniaxial stress induced band structure changes in h-SiB", 2018 IP Conference Proceedings, 1953, 110027.

#### SCHOOL OF MANAGEMENT

- 1. Shrisha S. and Kiran K. B. (2018)., "Demand, Markets and Innovation for Indian MSMEs", 11th Annual Conference of EuroMed Academy of Business (EMAB), Valletta, Malta.
- 2. Sumukh S Hungund and Kiran K B, "Open Innovation Approach Small for and Medium Enterprises: An Evidence from Indian Software Product Firms", South Asian Conference on Entrepreneurship Social and Innovation 2018 at TISS Mumbai.
- 3. Koudur, Shashikantha, "Kannada Movement and the Case of Light Music' Kannada", International Conference on Performing and Visual Arts, University Lumpur, Malaya, Kuala Malaysia, Jan. 9-11, 2018.
- 4. Mishra. S., & Kumar, S. P., "Prospecting the Enablers of Employer Branding: Retention Aspect", Presented at 27th

- Annual Conference of National Academy of Psychology (NAOP). Held at IIT Kharagpur (IIT KGP) during 22nd-24th December 2017.
- 5. Maurya, U., Kumar, S. P. & "Corporate Mishra, P., Reputation Dimensions, Enablers and Outcomes in Service Organizations", International conference Applied Business and Economics 20-21 Research May 2017. Organizing by M/s. Serials Publications, New Delhi, India.
- 6. Suprabha K R., "An Idiosyncratic study on financial distress and default of select Indian companies", International Engineering Symposium, Kumamoto University, March 7-9, 2018.
- 7. Vadivel S.M. and Sequeira A.H., "An operational performance of Indian Postal Service using Lean manufacturing approach conceptual framework", International conference on in Strategies volatile and uncertain environment for emerging markets, Department of Management Studies, IIT Delhi, 14-15July 2017.
- 8. Shamal S and Dr.Bijuna C Mohan, "Consumer acceptance of branded fortified foods and beverages in India: Potential for Healthy Marketing", NASMEI Summer Marketing Conference IIM Indore, July 27- 29, 2017, pp.112.
- 9. Bhat, S. (2017), "Determinants of R&D behaviour of foreign firms India". 12th Annual Conference of the Forum for Global Knowledge Sharing (in partnership with Tata Trusts) held during 10-12 November 2017 Nabakrushna at Choudhurv Centre for Development Studies, Bhubaneswar, India.
- 10. Tanupriya and Dhishna Pannikot, "Significance of Gender Liminality and Performativity: A Study on Hijras

- National Institute of Technology Karnataka, Surathkal and Transvestites", International Social Sciences and Humanities Book of Abstracts. Hambolt: Berlin, May 2017 p 57.
  - 11. Pradyot Ranjan Jena and Bibhu Prasad Naik, "Can third party certifications programme improve livelihoods and reduce food insecurity: An empirical study from southern India", 9th Biennial Conference of Indian Society of Ecological Economics, Thrissur, Kerala, 8th-10th Nov 2017.
  - 12. Sunil Khosla and Pradyot Ranjan Jena, "Estimating determinants poverty alleviation: Empirical Study from Rural Odisha", International Conference on "India after 25 years of Economic Reforms: What's achieved? What's ahead?" & One-day Doctoral Colloquium, Kerala, In, March 1-3, 2018.
  - 13. Rajesh M Kalli, Sunil Khosla, and Pradyot Ranjan Jena, "Effect of Climate Variability on Agriculture using Regression Analysis", Conference on Data Analytics, Machine Learning, and Security, Guru Ghasidas University, Chhattisgarh, In, February 15-16, 2018.
  - 14. Rajesh M Kalli and Pradyot Ranjan Jena, "Assessing Climate Change Impact on Millet Yields in Karnataka Region of South India", 7th International Engineering Symposium, Kumamoto University, Japan, March 7-9, 2018.
  - 15. Rajesh M Kalli and Pradyot "Does Climate Ranjan Jena, Agriculture Change Affect Adversely at Small Spatial Scale? Evidence from District-wise Analysis in Karnataka", International Conference on and Business, Indian Institute of Calcutta, Management IN, January 13-14, 2018.

#### **NATIONAL CONFERENCES**

### DEPARTMENT OF APPLIED MECHANICS AND HYDRAULICS

- 1. **A V Hegde\***, Rekha K, and Anand S, Wave reflection characteristics of Emerged seaside non-perforated and perforated quarter circle breakwater, IDEAS 2017, Thiruvananthapuram, Kerala, May 11-12, 2017
- 2. K. Suman and **A. V. Hegde**\*
  Prediction of Reflection
  Coefficient below the Data Range
  for Emerged Perforated Nonovertopping Semicircular
  Breakwater, OSICON 17
  Conference, 28-30 August 2017,
  NCESS Thiruvananthapuram

### DEPARTMENT OF CIVIL ENGINEERING

- 1. Nimi Ana Vincent, R. Shivashankar and K. N. Lokesh, "Some studies on laboratory and field electrical resistivities of soils", Indian Geotechnical Conference 2017, IIT Guwahati, December 2017.
- 2. Divya Nath, Nimi Ana Vincent, R. Shivashankar and K. N. Lokesh, "Electrical resistivity studies on lateritic soils", Indian Geotechnical Conference 2017, IIT Guwahati, December 2017.

#### DEPARTMENT OF CHEMSTRY

- 1. Meenaketan Sethi, D. Krishna Bhat\*ELECTROCHEMICAL STUDY OF GRAPHENE-NiCo<sub>2</sub>O<sub>4</sub> NANOCOMPOSITES FOR HIGH PERFORMANCE UPERCAPACITOR APPLICATIONS. Presented at ICAM-I2CAM Energy school held at JNCASR from 25 Nov-02 Dec, 2017.
- 2. Meenaketan Sethi and D. Krishna Bhat, "HIGH PERFORMANCE SYMMETRICAL SUPERCAPACITOR BASED ON GRAPHENE- NiCo2O4 NANOCOMPOSITES. " Presented at CRSI-ACS Symposium and 21st CRSI-National Symposium

- National Institute of Technology Karnataka, Surathkal in Chemistry held at CSIR-IICT Hyderabad during 13th-16th, July 2017.
  - 3. Kavyashree Sukad Keremane, Praveen Naik, Airody Vasudeva Adhikari, "Design and synthesis of new carbazole based metal-free organic chromophore for Dye-Sensitized Solar Cells", National conference on Science Technology: reaching the (NCST-RU-2017), unreached Mangalore University, Mangalore September 08-09, Karnataka, 2017.

# DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING

1. G. S. Punekar, A. Deepthi, A. Aiswarya, and Bhavani . Shanker, "Effects of error in acoustic velocity on partial discharge localization in power transformers over its working temperature range". National Conference on Condition Monitoring NCCM-2017, October 26-27, 2017, IGCRA-Kalpakkam Paper No 3A-D.

## DEPARTMENT OF MECHANICAL ENGINEERING

- 1. Ravikumar K.N., Hemantha Kumar and K.V. Gangadhara Fault Diagnosis of Ball Bearing of Two Stroke IC engine Based on Vibration Signals using Decision Tree and K-Star algorithm. 5th National symposium on Rotor Dynamics (NSRD 2017), 2017
- 2. SushanlalBabu, Anish SAn Aerothermal Investigation of Purge Flow Behaviour in a Linear Turbine Cascade With Upstream Wakes44th National Conference on Fluid Mechanics and Fluid Power2017
- 3. Deepak narayanan, Anand S, S AnishA COMPUTATIONAL HEMODYNAMIC STUDY ON IDEALIZED BIFURCATED ARTERIES44th National Conference on Fluid Mechanics and Fluid Power2017

- 4. M. Kanchan, R. ManiyeriNumerical Simulation of Flow in a Wavy Wall Microchannel Using Immersed Boundary Method44th National Conference on Fluid Mechanics and Fluid Power (FMFP 2017)2017
- 5. C D Prasad, Sharnappa Joladarashi, M R Ramesh, B H ChannabasappaEffect Intermetallic Laves Phases on Elevated Temperature Wear Behavior of HVOF Sprayed Co-Mo-Cr-Si CoatingTACT2017 International Thin Films Conference Oct. 15–18, 2017, National Dong Hwa University, Hualien, Taiwan2017.

### DEPARTMENT OF METALLURGICAL & MATERIALS ENGINEERING

- R.V. Kurahatti, A.O. Surendranathan,
   A.V. Ramesh Kumar and V. Auradi, A Comparative Study on Mechanical and Tribological Properties of Epoxy Composites Filled with Nano-ZrO<sub>2</sub> and Nano-Al<sub>2</sub>O<sub>3</sub> Fillers, Techno-Societal 2016, Maharashtra, India, Jan 4, 2018, pp. 549-557.
- 2. Yashaswini Karanth, Meghana Banavath, Komalakrishna H, Kaushal R Shakyaa, K Rajendra Udupa, Saumen Mandal, Development of nanohydroxyapatite-Fe<sub>2</sub>O<sub>3</sub> based UV absorbing sun screen filter from austromegabalanus psittacus, 7 9th December, 2017.

#### DEPARTMENT OF PHYSICS

- 1. Pranitha Sankar, H. D. Shashikala, Reji Philip," Expansion dynamics of aluminum ions in ultrashort plasma at different ambient pressures", National Laser Symposium 26, December 2017
- 2. Deepak Vaid, Differential Equations in Physics: From

National Institute of Technology Karnataka, Surathkal Newton to Einstein", National Workshop on Topics In Partial Differential Equations, MACS, NITK Surathkal, July 28, 2017

#### SCHOOL OF MANAGEMENT

- 1. Maben, Sonia Annette., & Uchil, .S. Rashmi, "Talent Acquisition Strategies towards Engagement of knowledge Workers: conceptual 17th Consortium of Students in Management Research (COSMAR), Dept. of Management Studies, 20-21 Bangalore, November, 2017.
- 2. Shenoy, Veena & Uchil, Rashmi, "Virtual Employee Experience and Employee engagement", 17th Consortium of Students in Management Research (COSMAR), Dept. of Management Studies, IISc, Bangalore, 20-21 November, 2017.
- 3. Sequeira A.H., "Role of governance and technology in sustainable social development' National conference "Sustainable Social Development", St. Aloysius Evening College and Mangalore Sociology Association, 3rd March, 2018.
- 4. Sequeira A.H., 'Strategic Planning University', in "Formation of conference on University Jesuit with Difference", St. Joseph's College(Autonomous), Bangalore, 17-18 November 2017.
- 5. Sunil Khosla and Pradyot Ranjan "Unravelling Jena, the Socioeconomic Determinants Affect Poverty: Econometric Analysis from Rural Odisha", Conference Transforming Odisha: policies, Institution, and Innovation, Centre for the Study on Societies, Contemporary Bhubaneswar, IN, March 4-6, 2018.
- 6. Rajesh M Kalli, Sunil Khosla, and Pradyot Ranjan Jena, "The

- Impact of Climate Change on Agriculture: Evidence of Cereal Crop using Panel Regression from Karnataka", 5th National Conference on The Network of Rural and Agrarian Studies, Nabakrushna Chaudhury Centre for Development Studies, Bhubaneswar, In, October 27-29, 2017.
- 7. Bibhu Prasad Naik, Pradyot Ranjan Jena and K. L. Maharjan, "Livelihoods, Vulnerability and Adaptation Strategies to Climate Variability and Climate Change: A Study of Inland Districts of Odisha", 5th National Conference on The Network of Rural and Agrarian Studies, Nabakrushna Chaudhury Centre for Development Studies. Bhubaneswar, In, October 27-29, 2017.
- 8. Rajesh Acharya H, "Investment and Exchange Rate: Firm Level Evidence from India, at the two day national conference on 'Globalizing the Finance?' organized by Department of Economics, Pondicherry University, from 10 to 11 April, 2017.

### 14 TECHNICAL EVENTS

### DEPARTMENT OF APPLIED MECHANICS AND HYDRAULICS

### **Books Chapters:**-

- 1. Kovoor, G. and Nandagiri, L\*, Sensitivity analysis of FAO-56 Penman-Monteith reference evapotranspiration estimates using Monte Carlo simulations, Chapter in book 'Hydrologic Modeling', Eds.: VP Singh, Shalini Yadav & RN Yadav. Water Science and Technology Library, Springer, [In Press], Sept 2017
- 2. Ramesh. H\*. and Soorya P.P, Application of EO-1 hyperion Data for mapping and discrimination of agricultural crops., A chapter contributed to a book "Hydrologic Modeling".

- National Institute of Technology Karnataka, Surathkal Edited by V. P. Singh, Springer Publications, 2017
  - 3. Beena Mary John, Kiran G. Shirla\*l and Subba Rao, Experimental Investigations of wave height attenuation by Submerged artificial vegetation, 33, Hydrologic Modeling, Water Science and Technology Library, Springer
  - 4. Beena Mary John, R T Arun Vignesh, Kiran G Shirlal\* and Subba Rao, Experimental Study on Role of Emergent Artificial Coastal Vegetation in Controlling Wave Run up, 36, Hydrologic Modeling, Water Science and Technology Library, Springer

#### **GIAN Courses:-**

- 1. Practical Analysis of Environmental Data with Open Source Software (R and QGis), Dr. Amba Shetty & Dr. Pruthviraj U., MHRD, New Delhi, February 5-9, 2018.
- 2. Geo statistical Analysis of Environmental Data, Dr. Amba Shetty & Dr. Pruthviraj U., MHRD, New Delhi, February 19 -23, 2018

## FOREIGN VISITORS TO DEPARTMENT

- 1. Dr. Gomez Cecile, Scientist, IRD, Agrosystems and Hydrosystems, FRANCE, 07.04.2017
- 2. Mr. Kusangi Kazuma, Professsor, Dept. of Aerospace of Marine system engineering, Osaka Prefectre University, Japan, 06.09.2017
- 3. Dr. S.Neelamani, Senior Research Scientist, Coastal Management Program, Kuwait Institute of Scientific Research, Kuwait, 02.01.2018
- 4. Prof. Ada E. Yonath, Nobel Laureate in Chemistry (2009), Israel, 10.01.2018
- 5. Prof. Serge Haroche, Nobel Laureate in Physics (2012), France, 10.01.2018

- Dr. Georg Hörmann, Senior Scientist, Dept. of Hydrology and Water Management, Kiel University, Germany, Feb. 5-9, 2018
- 7. Dr. Pierre Goovaerts, Chief Bio-Medware Scientist, Inc., Courtesy Associate Professor, Soil and Water Science Department, University of Florida, USA, Feb. 19 - 23, 2018
- 8. Mr. Snehamoy Chattergi, Asst. Professor, Geological and Mining Engineering, Michigan Technological Universitym, USA, 15.03.2018
- 9. Dr. Gomez Cecile, Scientist, IRD France, 17.04.2018

### INDIAN VISITORS TO DEPARTMENT

- 1. Dr. Sharad K. Jain, Proessor, NIH Roorkee, 22.03.2017
- 2. Dr. Nagesh Kumar, Professor, IISc., Bengaluru, 23.05.2017
- 3. Dr. S.K.Mishra, Professor, Dept. of Civil Engineering, IIT Roorkee, 14.07.2017
- 4. Prof. Prasad Bhaskaran, Professor, IIT Kharagpur, 05.09.2017
- 5. Dr. Sanasiraj, Professor, IIT Madras, 29.09.2017
- 6. Dr. M.Karthikeyan, Scientist, ISRO, Bengaluru, 26.10.2017
- 7. Dr. Sasikumar K., Associate Professor, Dept. of Civil Engg., NITK, Calicut, 09.12.2017
- 8. Prof. Prasad Bhaskaran, Professor, IIT Kharagpur, 27.12.2017
- 9. Dr. S.A.Sanasiraj, Professor, Ocean Department, IIT Madras, 29.09.2017
- 10.Dr. M.Karthikeyan, Scientist, ISRO, Bengaluru, 26.10.2017
- 11.Dr. Sasikumar K, Associate Professor, Dept. of Civil Engg., NITK, Calicut, 09.12.2017
- 12.Dr. Prasad K. Bhaskaran, Professor & Head, Dept. of Civil engineering, IIT, Kharagpur, 27.12.2017
- 13.Dr. S.A.Sanasiraj, Professor, Ocean Department, IIT Madras, 10.01.2018

- 14.Dr. Selvaraju Narayanasamy, Dept. of Bio-Sciences & Bio-Engineering, IIT, Gauwahati, 02.03.2018
- 15.Dr. Y.S.Rao, Centre for Studies for Resources Engineering, IIT, Bombay, 13.03.2018
- 16.Dr. Y.S.Rao, Centre for Studies for Resources Engineering, IIT, Bombay, 14.03.2018

#### **AWARDS AND RECOGNITIONS**

Geetha Kuntoji, Subba Rao, Manu and Eluru Nava Bharath Reddy (2017), "Prediction of damage level inner conventional rubble mound breakwater of Tandem breakwater using Swarm Intelligence based Neural Network (PSO-ANN) approach", International Conference Soft Computing for Problem Solving - SocProS 2017, during December 23-24, 2017 held at Indian Institute of Technology Bhubaneswar and has been honoured with **BEST PAPER** 

#### **AWARD** for the year 2017.

- Jhoga. P, Nasar. T, Aanand. K. V, Kunhimammu. P., A geospatial study shoreline approach to configuration Dynamics - pre, during and post construction of training wall. 37th INDIAN **NATIONAL** CARTOGRAPHIC **ASSOCIATION** (INCA) International Congress Geoinformatics for Carto-Diversity management, Hydrographic Office, Indian Navy, (Acknowledged by Dehradun. best paper award), 2017.
- Dr. G.S.Dwarakish, 2018, 'Climate change and global sustainability: Action for bridging the gap', 2<sup>nd</sup> International conference on Climate change 2018, , 15-16, Feb. 2018, colombo, Srilanka has been honoured with BEST PAPER AWARD.

Some of the events conducted by the department.

**Workshop** titled Prakruthi Infocus on 9th Jan. 2016

**Workshop** titled Satellite Remote Sensing based Societal Applications on 30th June 2016 **CEP** on Advanced Surveying, Total Station, GIS, GPS & Mapping during: 25-29 July 2016.

**Training Programme** on Mike 21 Software during: 22-26 August, 2016

**CEP** on Flood forecasting, flood routing and emergency preparedness of reservoir during: 19-23 Sept. 2016

**Workshop** titled Rainfall Run off-Modelling during : 26-30 Sept. 2016

**Workshop** titled Coastal Hydrodynamics and modelling' On 7th Oct. 2016

**Workshop** titled Microwave Remote Sensing during: 17-18 Oct. 2016.

**GIAN Course** on Offshore Renewable Energy (Wave, Wind and Tidal Energy) during: 7<sup>th</sup> -11<sup>th</sup> November, 2016

**GIAN Course** on Geo statistical Analysis of Environmental Data during: December 05-09, 2016

**Workshop** titled Prakruthi Infocus on 4th Feb. 2017

**Workshop** titled Past, present and future scenarion in Marine Structures on 20th Feb. 2017

**GIAN Course** on Practical Analysis of Environmental Data with Open Source Software (R and QGis) during: February 5-9, 2018

**GIAN Course** on Geo statistical Analysis of Environmental Data, during: February 19-23, 2018

### DEPARTMENT OF CHEMICAL ENGINEERING

#### **Book chapters**

- Lavanya, A., Raval Keyur, Raval, R.,"Photobioreactors for wastewater treatment: Recent advances", in Photobioreactors: Advancements, Applications and Research, ISBN: 978-153612355-5;978-153612354-8, Nova Science Publishers Inc., USA
- 2. Dr. Raj Mohan B., Dr. Jaya Mary Jacob & Dr. Dhilna Damodharan -

National Institute of Technology Karnataka, Surathkal Contributed a chapter in **Handbook** of Metal-Microbe Interactions and Bioremediation, CRC Press, Taylor & Francis Group (2017)

#### **Patents**

- 1. Keyur Raval, Vishnu M, Raj Mohan Balakrishnan, "Removal of heavy metals from contaminated water by adsorption using melanin bound activated carbon", Indian patent office, patent application number: 201841000695, date: 06.01.2018
- 2. Keyur Raval, Rohit Kalnake, D V R Murthy, "Rotating packed disc bioreactor", Indian patent office, patent application number: 201841000694, date: 06.01.2018
- 3. Vidya Shetty K, Afshan Kilpady, Deekshitha, "Bacterial based synthesis of core shell AgO@TiO2 nanoparticles for photocatalytic water disinfection and dye degradation" *Indian Patent Office*, Application Number: 201741044068 December 8th, 2017

#### **REVIEWS:**

1. Dr. Keyur Raval, Review of the fullmength article, "Kinetic modelling of hyaluronic acid production in palmyra palm (Borassus flabellifer) based medium Streptococcus zooepidemicus MTCC 3523" in Elsevier journal "Biochemical Engineering Journal".

## STTPS (SHORT TERM TRAINING PROGRAMMES)/SCHOOLS

1. Short Term training Programme on "Basics of Environmental Engineering" for Engineers of MRPL Organized by Department of Chemical Engineering and Centre for Continuing Education, NITK Surathkal, held during 20-26 March 2018. Coordinators: Dr. Hari Mahalingam and Dr. Vidya Shetty K

#### **CONFERENCES:-**

1. National Conference on Risk Reduction and Disaster Management in Industries -2018 (RRDMI-2018) held on 20th and 21st January 2018 organized by Department of Chemical Engineering, NITK Surathkal in association with Department of Factories, Boilers, Industrial Safety Government and Health, Karnataka and National Disaster Management Authority, Government of India. Conference Prof. G.Srinikethan. Chair: Organizing Secretary: Dr. Vidya Shetty K

## SEMINARS (NATIONAL & INTERNATIONAL)

- 1. Seminar on Multiphase Flow by on 2<sup>nd</sup> September 2017
- 2. Seminar on "Indigenous Technologies: From laboratory to the field" by Prof. Sirshendu De, IIT Kharagpur, 11<sup>th</sup> October 2017
- Seminar on "Recycling of Carbon Dioxide to Methanol and Derived Products – Closing the Loop" by Prof. G.K. Surya Prakash, USA, 23rd November, 2017

#### **Expert Lecture**

- 1. Expert Lecture on the topic "Chemical Engineering principles in the treatment of infectious diseases " by Prof. Narendra M. Dixit, Bangalore, August 10, 2017.
- 2. Extert Lecture on "Indigenous Technolologies: From laboratory to the field" by Prof. Sirshendu De, IIT Kharagpur, 11<sup>th</sup> October 2017.
- 3. Expert Lecture on "Recycling of Carbon Dioxide to Methanol and Derived Products Closig the Loop" by Prof. G K surya Prakash, USA, 23rd November, 2017.

#### Talk

1. Talks on "Basics and Technologies in natural gas processing career counselling for prospective process National Institute of Technology Karnataka, Surathkal engineers" by Mr. Jamil Ahamed, Doha, Qatar, 15th January, 2018

### VISIT TO ABROAD (Faculty):-

 Dr. Vidya Shetty K, Department of Chemical Engineering attended and presented a paper at NanoWorld Conference in Boston, USA during April 03-05, 2017

#### **Awards**

1. Dr. S. Gangamma -European Respiratory Society short term fellowship 2017, Blizard Institute, Queen Mary University, London.

### DEPARTMENT OF COMPUTER ENGINEERING

### SEMINARS (NATIONAL & INTERNATIONAL)

- SDN Online Lab organized by Dr. Mohit P Tahiliani on 20th December 2017
- 2. Wireless Alternative to Fiber for Residential Enterprise and Urban Access organized by Dr. Mohit P Tahiliani on 21st December 2017

### **WORKSHOPS:**

Dr. Mohit P. Tahiliani and Dr. B R Chandavarkar organized A WINGS's 7th 3 days' Workshop on "Opensource Network Experimentation (ONE-2017)", 1st – 3rd June 2017

### FACULTY DEVELOPMENT PROGRAMME

Cryptanalysis: Tools and Techniques organized by Dr. Alwyn R Pais from 4th - 8th December 2017

#### GIAN COURSE

- 1. Algorithmic foundations of Wireless Sensor Networks with Applications organized by Mrs. Saumya Hegde and Dr. Pushparaj Shetty with A GIAN (MHRD Govt. of India) from 10-14th December 2017
- 2. Software Based Networks: SDN and Integration of Virtualization in Networks organized by Dr. Mohit P Tahiliani with A GIAN (MHRD Govt.

of India) from 19-23rd December 2017

# STRESS MANAGEMENT TRAINING PROGRAMME EXPERT/TECHNICAL TALK

- Need of Interdisciplinary Research in Contemporary Research Arena organized by Dr. Shashidhar G Koolagudi on 03<sup>rd</sup> July 2017
- Practical Formal Methods for Mainstream LLVM Developers organized by Dr. Alwyn R Pais on 10th August 2017
- 3. Modern Speech Interfaces organized by Dr. Shashidhar G Koolagudi on 10th August 2017
- Data Visualization organized by Dr.
   P. Santhi Thilagam on 04th
   September 2017
- 5. Big Data Analytics Software Development Life Cycle(BDA-SDLC) organized by Dr. Alwyn R Pais on 03<sup>rd</sup> November 2017
- Formal Verification of robustness properties of Hybrid Systems organized by Dr. P. Santhi Thilagam on 2<sup>nd</sup> January 2018
- 7. Wireless Network Performance Evaluation organized by Dr. Mohit P Tahiliani on 3<sup>rd</sup> January 2018

### FOREIGN VISITORS TO DEPARTMENT

- Dr. Santosh Nagarkatte Assistant Professor of Computer Science at Rutgers University visited on 10th August 2017
- 2. Dr. Sajal K. Das Distinguished Professor Computer Science Rolla USA visited department from 10-14th December 2017
- 3. Daniel St. Clair Endowed The Chair Professor Missouri University of Science & Technology Rolla USA visited department from 10-14th December 2017
- Prof.K. K. Ramakrishnan Professor University of California Riverside USA visited department from 19-23rd December 2017
- 5. Dr. Aravind R. Raghavan Director of Product Management at Tarana Wireless Inc. Santa Clara USA visited on 21st December 2017

6. Prof. Sumit Roy Professor Dept of Electrical Engineering University of Washington Seattle USA visited on 3rd January 2018

### VISIT TO ABROAD (Faculty):-

- 1. Dr. Annappa was invited as a Visiting expert to Universite des Mascareignes Mauritius during 19th May to 18th June 2017.
- 2. Dr. K. Chandrasekaran Delivered an invited talk/ tutorial in the International Conference KMO 2017, Beijing China, titled "Knowledge Management in the context of Pervasive and Mobile Computing".
- 3. Dr. Mohit P. Tahiliani Delivered a talk on "Need for Speed: Minimize the Impact of Bufferbloat in Home Broadband Internet" at Lawrence Livermore National Laboratory 12th October 2017.
- Dr. Mohit P. Tahiliani Selected as a Mentor at Google Campus Sunnyvale California from 13th – 15th October 2017. Funded by Google Summer of Code to participate in GSoC Mentor Summit

#### DEPARTMENT OF CHEMISTRY

### NATIONAL CONFERENCE

- 1. **Meenaketan Sethi, D. Krishna Bhat\***Electrochemical Study Of Graphene-Nico<sub>2</sub>o<sub>4</sub> Nanocomposites For High Performance Supercapacitor APPLICATIONS. Presented at ICAM-I2CAM Energy school held at JNCASR from 25 Nov-02 Dec, 2017.
- 2. Meenaketan Sethi And D. Krishna Bhat, "HIGH PERFORMANCE SYMMETRICAL SUPERCAPACITOR BASED ON GRAPHENE- Nico2o4 NANOCOMPOSITES. " Presented At CRSI-ACS Symposium And 21st CRSI-National Symposium In Chemistry Held At CSIR-IICT Hyderabad During 13th-16th, July 2017.
- 3. Kavyashree Sukad Keremane, Praveen Naik, Airody Vasudeva Adhikari, "Design and synthesis of new carbazole based metal-free organic chromophore for Dye-Sensitized Solar Cells", National conference on Science and Technology:

reaching the unreached (NCST-RU-2017), Mangalore University, Mangalore Karnataka, September 08-09, 2017.

#### **BOOKS PUBLISHED:**

- 1. YN Sudhakar, M Selvakumar, D. Krishna Bhat, Biopolymer Electrolytes: Fundamentals and Applications in Energy Storage, Published by Elsevier, 2018, ISBN: 978-0-12-813447-4
- 2. Dr. A. M. Isloor, Inorganic Nanomedicines, published by Transtech Publishers, Switzerland

### **BOOKS EDITED:-**

1. Advanced Nanomaterials for Membrane synthesis and its applications, Published by Elsevier, 2018

#### **EXHIBITIONS**

 Dr. A.M. Isloor has exhibited Membrane module and its filtration at the National level Exhibition organized at Rashtrapathi Bhawan on 19 & 20<sup>th</sup> March 2018.

#### **PATENTS**

- 1. **Amir Al Ahmed** and **Arun M. Isloor,** "Method of N-formylating amines with a phosphonic anhydride" US Patent (**Patent number:** 9862675), Granted on 9th January 2018.
- 2 Amir Al Ahmed and Arun M. Isloor, "METHOD FOR REMOVING CATIONIC DYES FROM AN AQUEOUS SOLUTION USING AN ADSORBENT", USPatent (Publicationn umber: 20170233265), Published on 17th August 2017.

### POSTERS PRESENTED

 Jith C. Janardhanan, Gourab Das, Vakayil K. Praveen,\* Anisha Puthuvakkal, Cherumuttathu H. Suresh, Manoj Narayanapillai\* and Beneesh P. Babu, "Multiluminescent Indazole Dyes by Palladium Catalyzed Condensation Reactions of Hydrazones and pQuinones" 8th East Asia Symposium on Functional Dyes and National Institute of Technology Karnataka, Surathkal Advanced Materials, NIIST-CSIR, Trivandrum-19. IN, September 20-22, 2017.

### FOREIGN VISITORS TO DEPARTMENT

 Dr. Erna Yulawati, Associate Professor of UMP Palembang, Indonesia visted Chemistry Dept. NITK Surathkal on August 2017.

### VISIT TO ABROAD (Faculty):-

- Dr. A. V. Adhikari, Dr B. Ramachandra Bhat, Dr D. Krishna Bhat and Dr Udayakumar D. attended 5<sup>th</sup> International conference of Indian Council of Chemists at Swiss-Belhotel Rainforest, Kuta, Bali, Indonesia, June 7-9, 2017.
- 2. Dr. Arun M. Isloor of Chemistry Dept. visited Universitas Muhammadiah Palembang-Indonesia during June 2017 and University of Toronto-Canada during February 2018.

### DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

#### TECHNICAL EVENTS ORGANIZED

#### Workshop:-

1. Two-Day Workshop on SMART CAMPUS: IoT Solutions for Utility Management by Dr. M. S Bhat with NITK, Surathkal Newton Bhabha Fund Royal Academy of Engineering, 16th – 17th February 2018.

### Training

- Two day Hands-on Training programme on IoT by Dr. M. S. Bhat with NITK, Surathkal Newton Bhabha Fund Royal Academy of Engineering, 23rd – 24th February 2018.
- Hands-on Training programme on IoT by Dr. M. S. Bhat with Team from FluxGen Engineering Technologies Pvt. Ltd., Bangalore, 18th - 19th August 2017.

#### **GIAN Course:-**

- Advance level course on Introduction to Software Defined Networking by Dr. P. Srihari and Dr. Prashantha Kumar H with GIAN (MHRD), 26<sup>th</sup> – 30<sup>th</sup> March 2018.
- MHRD Supported GIAN Advance Level Course on Estimation, Tracking and Information Fusion by Dr. P Srihari, 04th – 08th December 2017.
- MHRD Supported GIAN Advance Level Course on Remote Sensing Image Processing and Analysis by Dr. Shyam Lal, 16<sup>th</sup> – 20<sup>th</sup> November 2017.

### FOREIGN VISITORS TO DEPARTMENT

- Prof. John Mathews, Professor School of Electrical Engineering & Computer Science Oregon State University Corvallis, OR 97331, USA, visited on 28th March 2018.
- Mr. Akshay Pattabhi , PhD Student UC Berkeley visited on 20<sup>th</sup> September 2017.
- 3. Dr. Pramod Kolar, Staff Engineer, Portland, Intel Corporation, Oregon Area, visited on 17th August 2017.
- Mr. Vikram Shenoy Handiru, PhD Researcher, NTU Singapore, visited on 11th August 2017

### VISIT TO ABROAD (Faculty):-

- 1. Dr. Sumam David S., Department of E&C Engg, attended 19th International Conference on Industrial Technology at Lyon, France and presented a paper, February 20-22, 2018.
- 2. Dr. Aparna P., Department of E&C Engg, attended International Conference on Infocom Technologies and Unmanned Systems (ICTUS 2017) at Dubai and presented a paper, 18-20 December 2017.
- 3. Dr. Sumam David S., Department of E&C Engg, visited US Universities to serve as a Program Evaluator for ABET on behalf of IEEE for ABET accreditation, 29-31 October 2017.

- 4. Dr. M S Bhat, Department of E&C Engg, attended 8th IEEE Annual Ubiquitous Computing, Electronics & Mobile Communication Conference at Columbia University, New York USA and presented a paper, 19-21 October 2017.
- 5. Dr. M S Bhat, Department of E&C Engg, attended IEEE International Humanitarian Technology Conference IHTC 2017 at Toronto, Canada and presented a paper, July 20-21, 2017.
- 6. Dr. P Srihari, Department of E&C Engg, attended IEEE Radar Conference at Seattle, USA and presented a paper, May 8-12, 2017.

### DEPARTMENT OF INFORMATION TECHNOLOGY

#### **BOOK CHAPTERS:-**

- 1. Kumar P., Ram Mohana Reddy G. (2018), "Friendship Recommendation System Using Topological Structure of Social Networks". In: Sa P., Sahoo M., Murugappan M., Wu Y., Majhi B. (eds) Progress in Intelligent Computing Techniques: Theory, Practice, and Applications. Advances Intelligent Systems and Computing, Vol. 519. pp. 237-246, Springer, Singapore.
- 2. Raghu G., Sharma N.K., Domanal S.G., Ram Mohana Reddy G. "Memory-Based (2018),Balancing Algorithm in Structured Peer-to-Peer System". In: Sa P., Sahoo M., Murugappan M., Wu Y., (eds) Progress Majhi В. Intelligent Computing Techniques: Theory, Practice, and Applications. Advances in Intelligent Systems and Computing, Vol. 518, pp. 431-439, Springer, Singapore.
- 3. Kumar P., Jaiswal A., Deepak B., Ram Mohana Reddy G. (2018), "Hand Gesture-Based Stable PowerPoint Presentation Using

- Kinect". In: Sa P., Sahoo M., Murugappan M., Wu Y., Majhi B. (eds) Progress in Intelligent Computing Techniques: Theory, Practice, and Applications. Advances in Intelligent Systems and Computing, Vol. 518, pp. 81-94 Springer, Singapore.
- 4. Dani V., Sarswat A., Swaroop V., Domanal S., and Guddeti. R. M. R. (2017), "Fast Convergence to Near Optimal Solution for Job Shop Scheduling using Cat Swarm Optimization", In: Shankar B. et al. (Eds.): PReMI'17, Springer Lecture Notes in Computer Science, Vol. 10597, pp. 282–288, 2017.

# STTPS (SHORT TERM TRAINING PROGRAMMES) / SCHOOLS

- 5 Days Short-Term Program on "IPv4 Networking Fundamentals" by Dr. Jaidhar C D, 19th to 23rd March 2018
- 2. Two day workshop on "
  Information Security" by Dr. G.
  Ram Mohana Reddy with
  Mercedez Benz & OLA
  Bangalore, 31/10/2017
- 3. One Day workshop on "AMD Tech Day" by Dr. G. Ram Mohana Reddy with AMD Bangalore, 23/3/2018
- 4. Dr. Sowmya Kamath S visited NUS, Singapore for Research interaction and conference paper presentation, Dec 3-9, 2017.
- 5. Dr. Sowmya Kamath S visited Kumamoto University (Japan) for Research interaction and conference paper presentation, Mar 5-11, 2018
- 6. Dr. Nagamma Patil visited Vietnam to attend 8th International Conference on Computational Systems-Biology and Bioinformatics (CSBio 2017), Dec 6th -9th, 2017.

### VISIT TO ABROAD (FACULTY):-

- Prof. Ananthanarayana V S visited Sydney, Australia for paper presentation and research interaction, 30th July - 5th August 2017.
- 2. Dr. Geetha V visited Kumamoto University, Japan for IES 2018, 7-9 March 2018.
- 3. Dr. Geetha V visited NUS, Singapore, For IALP 2017, 5-7 Dec 2017.
- 4. Dr. Sowmya Kamath S visited NUS, Singapore for Research interaction and conference paper presentation, Dec 3-9, 2017.
- 5. Dr. Sowmya Kamath S visited kumamoto University (Japan) for Research interaction and conference paper presentation, Mar 5-11, 2018.
- Dr. Nagamma Patil visited Vietnam to attend 8<sup>th</sup> International Conference on Computational systems-Biology and Bioinformatics (CSBio 2017), Dec 6<sup>th</sup>-9<sup>th</sup>, 2017.

### DEPARTMENT OF COMPUTATIONAL & MATHEMATICAL SCIENCES

### Workshops:-

1. National Workshop, A six day workshop on Algebraic Graph Theory, 25/01/18 & 6 days, NBHM - DAE, Government of India & CSIR, Government of India, A. Senthil Thilak, Pushparaj Shetty D, Srinivasa Rao Kola.

### DEPARTMENT OF MECHANICAL ENGINEERING

#### **BOOKS PUBLISHED:**

 G.C Mohan Kumar, Advances in Mechanical Design, Materials and Manufacture American

- Institute of Physics, 2018 ISBN: 978-0-7354-1638-3, Volume number: 1943 Published: Apr 20, 2018
- Arumuga Perumal, Lattice Boltzmann Computation of Macro- & Micro Fluids & Heat Transfer Lambert Academic Publishing, 2017, ISBN: 978-620-2-01337-6, Published August 2017
- Veeresh Navak C,MRamesh, Vijay Desai, Sudip Kumar Samanta, Manjunath Patel G.C Optimization of Metal Injection Moulded Process using Taguchi, Grey relational and Principal Component Analysis" book title "Materials Forming, Machining and Post Processing Springer International Publishing, Cham-Switzerland 2018 ISBN: 9780735416383, Published year: 2018

#### **CONFERENCES**

- International Conference on design, materials and manufacture29 Jan 2018serbdstnewdelhi, csir, new delhi gcmohankumar
- National Conference25th National Conference on Internal Combustion Engines and Combustion 2017Dec 15-17, 2017Combustion Institute Indian SectionKumar G N

#### **WORKSHOPS:**

- SHAPER, Quantity 2, QUALITY MACHINE TOOLS COPORATION BATALA, QHTI8G
- HYDRALIC POWER HACKSAW Quantity: 1, SHREE NIDHI ENGINEERING BENGALURU, HPS-300
- WOOD TURNING LATHE, 3, YASH MACHINE TOOLS AHMEDABAD, YMT921

# DEPARTMENT OF MINING ENGINEERING.

### **GIAN Course**

GAIN Course on "Computer Application and data analysis in mining and other core industries" Organised by Department of Mining Engineering on 12th to 16th March 2018 at NITK, Surathkal (course coordinator Prof.B.M.Kunar).

### DEPARTMENT OF METALLURGICAL & MATERIALS ENGINEERING

### **Book Chapters:**

1. Dr. Udaya Bhat K. and Dr. K. Rajendra Udupa, Preparation and Characterization of Copper thin films for antimicrobial applications", Apple Academic Publishing. CRC Press, 2017.

### Foreign Visitors to Department:

- Dr. Sameer Guduru, Post Doctoral Researcher Engineer, SATT & LP3, CNRS, Aix-Marseille Univ., Marseille, France visited on 30th May, 2017.
- Dr. Sumanth Shankar, Director, LMCRC, Dept. of Mechanical Engineering, McMaster University, 26th September, 2017
- Dr. M. P. Phaniraj, Brain Korea Asst. Professor, Dept. of Materials Science & Engineering, Seoul National University, 09th March, 2018
- Dr. Samir Degan, President, NACE International, Houston, USA, 21<sup>st</sup> March, 2018

### Visit to Abroad (Faculty):

- Dr. K. Rajendra Udupa attended International Conference on "Emerging Materials Congress 2018" at Hotel Park Inn, London during 22<sup>nd</sup> to 23<sup>rd</sup>, March 2018.
- 2. **Dr. A. O. Surendranathan** attended conference on "Nanotech France" at Paris, France during 28<sup>th</sup> to 30<sup>th</sup> June 2017

3. **Dr. K. Narayan Prabhu** attended Conference on "Heat Treat 2017" at Columbus, Phio, USA during 23<sup>rd</sup> to 26<sup>th</sup> October, 2017.

#### DEPARTMENT OF PHYSICS

#### **BOOKS PUBLISHED:**

 Deepak Vaid, Sundance Bilson-Thompson, "LQG for the Bewildered", Book, Springer Nature, 2017, doi: 10.1007/978-3-319-43184-0

### POSTERS PRESENTED

1. S. Kumari, S. S. Mal, P. P. Das, "Graphene oxide-polyoxometalate composite materials for energy harvesting", International Conference On Recent Advances in Materials Science and Biophysics (RAMSB 2018), Mangalore University, India, Jan 23-25, 2018.

### FOREIGN VISITORS TO DEPARTMENT

- Dr. Nishant Sirse ,Post-Doctoral Fellow, Dublin City University, UK delivered a special lecture on Electronegative Plasma Diagnostics, May 24th 2017
- 2. Dr. Sakshath S, Post-Doctoral researcher, Technische University, Kaiserslautern, Germany delivered a special lecture on Ultrafast Demagnetisation Dynamics in Multicomponent Systems, January 12<sup>th</sup> 2018.

#### SCHOOL OF MANAGEMENT

### **Book Chapters:-**

- Koudur, Shashikantha, "Representing the Subaltern: From Tulu Text to the Kannada Context", in Translation: Try Thy Metaphor, Eds. Shailendra Kumar Singh and Aparupa Dasgupta, New Delhi: Lakshi Publishers and Distributors, 2017
- 2. Mishra, S., & Kumar, S. P. "Strengthening Internal Employer Branding by linking it to Employee Engagement: Retention Aspect, Riding the New Tides Navigating the

National Institute of Technology Karnataka, Surathkal Future through Effective People Management". Emerald Publishing, 178-185, 2017.

3. Pradyot Ranjan Jena, Ulrike Grote and Till Stellmacher, "Certifying Coffee Cooperatives in Ethiopia, India And Nicaragua: How Far Do Small Small-Scale Coffee Producer Benefit?" Fair Trade and organic agriculture-A winning Combination? page no 157-172.

#### **REVIEWS:-**

Reviewed journal manuscripts for following journals

- 1. World Development
- 2. Ecological Economics
- 3. Journal of cleaner production
- 4. Working paper for Gujarat Institute for Development Research (GIDR)
- 5. Applied Economic Perspective and Policy

# STTPS (SHORT TERM TRAINING PROGRAMMES)/SCHOOLS

 Management Development Programme on Talent Management and Succession Planning for KIOCL – by Prof. K. B. Kiran and Dr. Rashmi Uchil from 11th December to 15th December, 2017 at NITK Surathkal

### CONFERENCES SEMINARS (NATIONAL & INTERNATIONAL) WORKSHOPS

- 1. Workshop on 'Financial Econometrics using R' organized by Amrita Vishwa Vidyapeetham in collaboration with The Indian Econometric Society (TIES) at Bangalore during May 27-28, 2017, Dr. Rajesh Acharya attended.
- 2. Crisil Executive Training Programme on 'Debt Mutual Fund Investments-Imperatives for fund selection and monitoring' at Mumbai during July 28-29, 2017, Dr. Rajesh Acharya attended.

# FACULTY DEVELOPMENT PROGRAMME GIAN COURSE

1. Randomized Controlled Trials (RCTs) and Non-experimental Approaches to

Program Evaluation and Research Design, from October 23-27, 2017, Pradyot Ranjan Jena

### FOREIGN VISITORS TO DEPARTMENT

- Prof Laurence Larghi from HEIG-VD, Switzerland, Professor, visited Indian Leg of International Summer University Program 2018, on 9<sup>th</sup> February to 22<sup>nd</sup> February 2018.
- Prof. Tianan Yang from BIT, China, Professor, visited Indian Leg of International Summer University Program 2018, on 9th February to 22nd February 2018.
- 3. Prof Zysman Eytan from HEIG-VD, Switzerland, Professor, visited Indian Leg of International Summer University Program 2018, on 9<sup>th</sup> February to 22<sup>nd</sup> February 2018.

### VISIT TO ABROAD (Faculty):-

- 1. Dr. Shashikantha Koudur, Associate Professor, attended the 1st International Conference on Performing and Visual Arts, University of Malaya, Kuala Lumpur, Malaysia, Jan. 9-11, 2018.
- 2. Dr. S. Pavan Kumar visited Switzerland as part of *Summer University 2017*, it is an exchange program between School of Management, NITK and School of Management and Engineering Vaud, Switzerland. The event was organized during June 28th 2017 to July 14th 2017.
- 3. Dr. Suprabha K. R visited Japan for the International Engineering Symposium held on March 7-9, 2018.

#### **CONSULTANCY PROJECTS**

### DEPARTMENT OF APPLIED MECHANICS & HYDRAULICS

1. Inspection and assessment of removable sand quantity in sand bars of Netravathi, Gurpur, Nandini and Shambhavi rivers of DK dist, May 2017., Client: Dy. Director, Dept of Mines & Geology,

Mangalore. , Consultant : Prof. Amai Mahesha, Rs. 6.0 Lakhs

- National Institute of Technology Karnataka, Surathkal
- 2. Feasibility study on coastal reservoir construction to impound Netravathi river flood waters: Α sustainable strategy for water resources development for Mangalore. May - Aug. 2017., Client: Chairman, CSSP, Indian Institute of Science, Bengaluru- 12., Consultant: Prof. Amai Mahesha, Dr. H. Ramesh, Dr. T Nasar, Dr. Manu B. and Dr. Raviraj M., Rs. 6.0 Lakhs
- 3. Design of drainage system at Mangalore airport, 2018, Client : AAI, Mangalore, Consultant : Dr. Paresh Chandra Deka, Rs. 10.00 Lakhs
- 4. Sand Mining exploration in Karwar district, 2018, Client: Deptt. Of Mining and Geology, Govt. of Karnataka, Consultant: Dr. Paresh Chandra Deka & Dr. H. Ramesh, Rs. 7.00 Lakhs

### DEPARTMENT OF MINING ENGINEERING

- 1. Prof.V.R.Sastry, " Under water Blasting for Rock Dredging in New Mangalore Port, Rock &Reef Dredging",NMPT. April –June 2017, 3,56,500.0
- 2. .Prof.V.R.Sastry," Study of Impact of Ground Vibrations caused due to Blasting in Stone Quarry", Sr.Geologist, Department of Mines, &Geology, Udupi District, April-May 2017, 86,250.00. 3.
- 3. Prof.V.R.Sastry, Dr.Ram Chandar. K," Study of the Impact of Ground Vibration caused due to Blasting in Stone Quarry", Sri Shrisha Nayak, Kenjar, Karkala Taluk., June- July 2017, 86,250.00.
- 4. Prof.V.R.Sastry," Study of Impact of Ground Vibrations caused due to Blasting in Stone Quarry in Hallady",
- 5. Sri .Jagannath Shetty, Stone Quarry, Hallady Village, Kundapur Tuluk, July- August2017, 88,500.00
- 6. Prof.V.R.Sastry," Study of Ground Vibrations generated due to Blasting Operation" August –September 2017, 88,500.00
- 7. Prof.V.R.Sastry, "Slope stability study in Rain Lime Stone Mine", Rain cements, Srinagar colony,

- Hyderabad, August –September 2017, 5,95,700.00
- 8. Prof.V.R.Sastry," Stability Analysis of Rock Slope infront of Pallivasal Property", T Asok kumar, Pallivasal, Munnar, Kerala, October.-November 2017, 2,36,000.00.
- 9. Prof.V.R.Sastry,Dr. K. Ram Chandar, "Scientific Study on Blast in ground vibration At Manvguru SCCL, and Scientific study for stability of OB bench at RKP-OCP, Mandamarri area, SCCL", The Singareni Colleries co ltd, Kothagudam, October –November-2017, 7,96,500.00.
- 10. Prof. V.R. Sastry, "Study of the Ground Vibrations caused due to blasting in stone quarry", Hirechosaba Stone Crusher, M/S. Santa Narayna Nayak, November-December 2017, 94,400.00
- 11. Prof. V.R. Sastry," Study of ground vibration due to blasting in stone quarry", Gajanana Stone Crusher, Kumta, Uttara Kannada, December-Januay2017, 94,400.00.
- 12. Prof. V.R. Sastry, Dr. Ram Chandar. K, "Study of ground vibration caused due to tunnel blasting", M/S GVPR-ELHCC(JV), Yettinahole Project, Sakleshpura, November -December-2017, 94,400.00.
- 13. Prof. V.R. Sastry," Consultancy for slope blasting methodology for safe excavation of jackwell pump house, BPLIS, Narayanapura dam, Karnataka", Amrutha construction Pvt ltd, Ashwath Nagara, Bangalore., February-March 2018, 2,36,000.00.
- 14.Prof.V.R.Sastry," Study of ground vibrations –Impact on Railway track, Sakleshpura", Maruthi Power gen Ltd, Sakleshpura., January February 2018, 1,77,000.00.
- 15. Prof. V.R. Sastry, Dr. Ram Chandar. K, Study for stability of dump and highwall benches, KTKOC Sector-I, Bhupalapalli Area, Singareni Colleries co. ltd, Kothagudem Colleries, Telangana state, March April 2018, 54,000.00.

- 16. Prof. V.R. Sastry, "Blasting studies in building stone quarry", Fathima Granite, Ernakulam district, Kerala, March-April 2018, 1,77,000.00
- 17. Prof. V.R. Sastry," Vibration Test on PVIP Aqueduct at ch.5400 of Paipra MD in Mulavoor village, Kothamangalam Tq" Mr.Shareef, quarry Owner

### DEPARTMENT OF METALLURGICAL & MATERIALS ENGINEERING

- 1. Dr. Udaya Bhat K: Failure Analysis of GOHDS stripper, MRPL, Rs.85,000/=, April 2017 (completed)
- 2. Dr. Udaya Bhat K: Failure Analysis of SS 202 steam pipes, SKF Boiler's & Driers, Moodabidri, Rs.69,000/=, June 2017, (completed)
- 3. Dr. K.N.Prabhu: Comparative Study of Wetting Behavior and Mechanical properties of Pb-based and Pb-free Solders for Soldering Applications at ABB Limited, Rs. 14,00,000, June 2017, (completed)
- 4. Dr. Udaya Bhat K: Excessive Slag formation, Lamina Foundries, Nitte, Rs. 40,120/-, July 2017, (completed)
- 5. Dr. Udaya Bhat K: Analysis of coatings for Aluminum extrusions, CPWD, NITK, August 2017, Rs.54,120/= (completed)
- 6. Dr. Subray Hegde: Failure of STG7 Steam Turbine Blades – Preliminary Report, MRPL, October 2017, Rs.97,940/= (completed)
- 7. Dr. Subray Hegde: Rail Fracture Analysis, KRCL, November 2017, Technical Outreach Activity Completed.
- 8. Dr. Udaya Bhat K: Development of quality assurance, SKF Boiler's & Driers, Moodabidri, December 2017, Rs. 80,000/=, (completed)
- 9. Dr. Subray Hegde: Inclusion Analysis of STG Steam Turbine Blade, Rs. 2,98,500/=, January 2018, (On going).
- 10.Dr. Subray Hegde: Failure of DCU Heater Tubes, MRPL, 2018, Rs. 3,65,800 (On going).

- 11.Dr. Subray Hegde: Failure of K-Type Thermocouples, MRPL, 2018, Rs.4,07,100/=, (On going).
- 12.Dr. Subray Hegde: Failure of DCU Tube Anchor, MRPL, 2018, Rs.3,65,800/= (On going).
- 13. Dr. Subray Hegde: High Temperature Hydrogen Cracking of Distillation Vessel, MRPL, 2018, Rs. 3,00,900/= (On going).
- 14.Dr. Subray Hegde: Failure of Cooling Tower Pump Shaft, MRPL, 2018, Rs. 3,89,400/= (On going).
- 15.Dr. Subray Hegde: Failure of Cooling Pump Impeller, MRPL, 2018, Rs.4,54,300/= (On going).
- 16.Dr. Subray Hegde: Cracking of fractionator Column, MRPL, 2018, Rs.3,65,800/= (On going).

#### 15 HUMAN RESOURCE DEVELOPMENT

### 15.1 TRAINING STATUS

### DEPARTMENT OF CHEMICAL ENGINEERING

1. Miss. Rajalakshmi K. (Reg. No.148041CY14F05) and Miss. Kavyashree S Keremane (Reg. No.165027CY16F03), (full-time Ph.D. students of Prof. A. V. Adhikari, Dept. of Chemistry, NITK) carried out research work in Nanyang Technological University, Singapore (from Jan 1<sup>st</sup> to June 1<sup>st</sup>, 2018) under "NTU-India Connect Research Internship Programme 2018" with Prof. Subodh Mhaisalkar, Energy Research Institute @NTU, Singapore.

## DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

- 1. Dr. B. Nagavel, Department of E&C Engg, attended QIP Sponsored Short Term Course on Modern Antennas for Wireless Systems at IIT Kharagpur during 20-24 March, 2018.
- 2. Dr. Shyam Lal, Department of E&C Engg, attended workshop on Swarm & Evolutionary Algorithms: Theory & Algorithms at IIT Roorkee during 17-18 March, 2018.

- National Institute of Technology Karnataka, Surathkal
- 3. Dr. Deepu Vijayasenan, Department of E&C Engg, attended the workshop on Brain, Computation and Learning at IISc, Bangalore on 8-13 January 2018.
- 4. Dr. B. Nagavel, Department of E&C Engg, attended Short Term Course on Design of Microwave Antennas for Wireless Communication Application at IIT Kharagpur during 21-26 August, 2017.
- 5. Dr. Aparna P., Department of E&C Engg, attended Short Term Course on Advanced DSP Design Techniques at IIT Kharagpur during 10-14 July, 2017.
- 6. Ms. Kalpana G. Bhat, Department of E&C Engg, attended Instruction Enhancement Programme on Mixed Signal and RFIC Design at NIT Sikkim during 5-9 June, 2017.
- 7. Dr. Sumam David S., Department of E&C Engg, attended NIRF India Rankings 2017 function at Rashtrapathi Bhavan, New Delhi on 10th April 2017.
- 8. Dr. Krishnamoorthy K., Department of E&C Engg, attended CST Studio Suite Workshop series 2017 at CST India Pvt. Ltd, Bangalore on 10<sup>th</sup> April 2017.
- 9. Mr. Sanjeeva Poojary, Department of E&C Engg, attended the Training on General Financial Rules 2017 and Public Procurement Under TEQIP on 2-3 February, 2018.

#### SCHOOL OF MANAGEMENT

- 1. First Deshpande Gopalakrishnan Symposium conducted by IIT Madras, Chennai on 28th-30th January, 2018 , Prof. K. B. Kiran.
- 2. Reach Where you aspire to-Leadership Training Programme conducted by All India Management Association (AIMA)from February 21-23, 2018, Jodhpur, Dr. Bijuna C. Mohan.
- 3. Specialized training programme for Women Professionals on "Reach Where You Aspire To: Leadership Training" organised by All India Management Association (AIMA) from 21 to 23

- February, 2018 at Ranbaka Palace, Jodhpur, Rajasthan, Dr. Dhishna P.
- 4. Ten days GIAN Course on "Comparative Literature" organised by Dr Punyashree Panda at the School of Humanities, Social Science & Management from 6-12-2017 to 16-12-2017 at Indian Institute of Technology Bhubaneswar, Dr. Dhishna P.

### DEPARTMENT OF INFORMATION TECHNOLOGY

- Prof. G. Ram Mohana Reddy attended Amdocs Sponsored 2-Day Industry Interaction (Faculty Enrichment Program), Pune, India, August 3-4, 2017.
- Prof. G. Ram Mohana Reddy attended Deloitte Sponsored 1Day Bridge-Aligning Academia with Industry Analytics, Hyderabad, India, Feb. 24, 2018
- Prof. G. Ram Mohana Reddy attended 4th IEEE Int. Conf. on Recent Trends in Information Technology (RAIT 2018), IIT(ISM) Dhanbad, March 15-17, 2018.
- 4. Prof. Ananthanarayana V S attended General Financial Rules 2017 & Public Procurement organized by NITK on 2-3 Feb. 2018
- 5. Prof. Ananthanarayana V S attended Workshop on Curriculum organized by NITK on 10 March 2018.

### PLACEMENT OF STAFF FOR ACADEMIC EXCELLENCE

## Department Of Computer Engineering

- 1. Dr. Annappa Invited as a Visiting expert to Universite des Mascareignes Mauritius during 19th May to 18th June 2017.
- 2. Dr. Mohit P. Tahiliani Selected as a Mentor for Google Summer of Code (GSoC) from ns-3 organization (30th May 2017 to 21st Aug 2017)
- 3. Dr. K. Chandrasekaran As CVO of NITK organized a one week "Vigilance Awareness Week" during 30th Oct to 4th Nov 2017

- National Institute of Technology Karnataka, Surathkal
- 4. Dr. K. Chandrasekaran delivered an invited talk/ tutorial in the International Conference KMO 2017 titled "Knowledge Management in the context of Pervasive and Mobile Computing".
- 5. Dr. Mohit P. Tahiliani Invited to participate in "Intel India Colloquium" at Bangalore 9th October 2017
- 6. Dr. Mohit P. Tahiliani Delivered a talk on "Need for Speed: Minimize the Impact of Bufferbloat in Home Broadband Internet" at Lawrence Livermore National Laboratory 12th October 2017
- 7. Dr. Mohit P. Tahiliani invited by Google Summer of Code to participate in GSoC Mentor Summit at Google Campus Sunnyvale California from 13th 15th October 2017.

### DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

- 1. Dr. Sumam David, Department of E&C Engg,, Branch Counsellor of the IEEE student branch @ IEEE Annual General Body Meeting Bangalore.
- 2. Dr. Sumam David, Department of E&C Engg,, Professor in charge of Analytics, Accreditation & Ranking.
- 3. Dr. Ramesh Kini M and Dr. Ashvini Chaturvedi, Department of E&C Engg, visited Govt. Engg. College, Jhalawar, Rajasthan to participate in twinning activities during 7 -14 February, 2018.
- 4. Dr. U. Shripathi Acharya, Dr. Ramesh Kini M., Dr. Laxminidhi T., Dr. Ashwini Chaturvedi and Dr. Shyamlal visited Govt. Engg. College, Jhalawar, Rajasthan to participate in twinning activities during 11-16, September 2017.
- 5. Dr. U Shripathi Acharya, Department of E&C Engg, appointed as external member, Department Curriculum Committee in E&C Engg. MIT Manipal, 2017.

- 6. Dr. U Shripathi Acharya, Dr. T Laxminidhi, Dr. Ramesh Kini and Dr. Ashwini Chaturvedi, Department of E&C Engg, Nominated as Nodal officers for the proper planning, co-ordination, implementation, monitoring and evaluation of TEQIP-III activities in NITK
- 7. Dr. U Shripathi Acharya, Department of E & C Engg, visitedNPIU, Noida for Orientation Workshop, on 25<sup>th</sup> July, 2017.
- 8. Dr. Aparna P., Department of E&C Engg, Chaired а Session on Computational Applications in the XIV Instrumentation Control System Conference CISCON-2017 held on 3 - 4 2017 November at Dept. of Instrumentation and Control Engg, MIT Manipal
- Dr. Aparna P., Department of E&C Engg, Delivered a Keynote on Role of Embedded Systems in Instrumentation in the XIV Control Instrumentation System Conference CISCON-2017 held on 3 - 4 November 2017 at Dept. of Instrumentation and Control Engg, MIT Manipal.

### DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING

- 1. Gururaj S Punekar Invited talk of 3 Hrs in management Development program for KIOCL personnel on "Strategy Electrical"
- 2. Gururaj Punekar KOICL Mangalore extended an invitation for a training session "Electrical Safety" at their premises for their technical personnel.
- 3. Gururaj S Punekar, The Institute of Marine Engineers Mangalore, requested for a guest lecture on "Spectacular Lightning".

### DEPARTMENT OF MECHANICAL ENGINEERING

Arumuga Perumal D, Innovative Technological Research (Thermal

### DEPARTMENT OF METALLURGICAL & MATERIALS ENGINEERING

- Dr. A. O. Surendranathan, 15-9-2017: Conferred the Engineers' Day Honour-2017 by The Institution of Engineers (India), Mangaluru Local Centre, & Kodagu, Dakshina Kannada & Udupi Engineers' Association 2.28-12-2017: Marquis Who's Who selected for their official 2018 Albert Nelson Marquis Lifetime Achievement Award
- 2. Dr. K. Narayan Prabhu, Selected for the National Metallurgists' Day (NMD) Award - Metallurgist of the Year in the Nonferrous Category. The award was the 55th National presented on Metallurgists' Day held on November 2017 at BITS Pilani-Goa by Shri Chaudhary Birender Singh, Union Minister of Steel, Government of India. NMD award scheme is instituted by the Ministry of Steel, Government of India to honour technologists/scientists in recognition of their specific original contributions made in the fields production/research made in the last 5 years and its impact on National Scenario.
- 3. Dr. S. Anandhan, Elected Fellow of the Institution of Engineers (India) from the 31<sup>st</sup> of August 2017.
- 4. Dr. Kumkum Banerjee, Selected for the award of Distinguished Woman in Engineering for the contribution and achievement in the field of Metallurgical Engineering on 3<sup>rd</sup> March 2018.

### 16.0 Placement Details Highlights

The year 2017-18 has been a very successful year for the Dept. of Training & Placement. We had reasonably very high percentage of Placements and Training slots.

### Main Objectives:

To provide opportunities for,

- 1. Placement to all students of the final year B.Tech, M.Tech, MCA, MBA and M.Sc.
- 2. Training to all students to be covered during the 5<sup>th</sup>, 6<sup>th</sup> and 7<sup>th</sup> Semester vacations. The compulsory training for B.Tech. Mining Engg. Students during the 5<sup>th</sup> and 6<sup>th</sup> Semester vacations.
- 3. Provide Counseling and facilitate development of Soft Skills and Personal Effectiveness to help students build a successful career.

### **Performance Overview:**

- 1. A total of 256 Companies visited NITK Surathkal for Campus Recruitments.
- 2. 47 Companies visited NITK for Placement process for the first time.
- 3. 870 students were placed 610 B.Techs, 161 M.Techs, 67 MCAs, 27 MBAs, 4 MSc (Chemistry) and 1 MSc (Physics)

### PLACEMENT DETAIL 2017 - 18

S1.	Name of the Company	Students placed	Pay Package (Rs. In Lakhs p.a.)	
110.		piaceu	UG	PG
1	MICROSOFT, HYD	22	22.4	22.4
2	INTUIT, B'LORE	5	25.2	_
3	MYNTRA DESIGN, B'LORE	5	28	_
4	UBER INDIA SYSTEMS,B'LORE	1	36.6	_
5	ORACLE, B'LORE	15	22	22.5
6	BAJAJ AUTO, PUNE	5	7.8	8.2
7	ADOBE SYSTEMS, B'LORE	3	20.4	20.4
8	NETAPP, B'LORE	2	-	18
9	TEXAS INSTRUMENTS, B'LORE	10	16.6	18.8
10	SAMSUNG R&D, B'LORE	36	16	18
11	QUALCOMM, B'LORE	29	15.6	17.8
12	ARCESIUM INDIA, HYDRBD	2	31	_
13	DELL EMC, B'LORE	8	10.8	13.4
14	ALTISOURCE, B'LORE	4	10	10
15	MORGAN STANLEY, MUMBAI	3	16.2	16.8
16	HERO MOTOCORP, N DELHI	1	7	_
17	TESCO, B'LORE	5	15	15
18	G E INDIA, B'LORE	3	8.3	10
19	GOLDMAN SACHES, B'LORE	1	28	_
20	AMAZON, HYDRBD	4	15.5	16
21	FIDELITY, B'LORE	21	12.9	-
22	VE COMMERCIAL VEHICLES, M.P	3	5	-

National I	nstitute of Technology Karnataka, Surathkal			1
23	SYMANTEC SOFTWARE, CHENNAI	1	12	12.5
24	ARISTA NETWORKS,B'LORE	2	13	-
25	RBS, MUMBAI	3	8	8
26	CITI BANK, MUMBAI	16	13.5	10
27	INFORMATICA, B'LORE	2	11.3	11.3
28	ZENDRIVE, B'LORE	0	18	18
29	RIVERBED TECH, B'LORE	5	9.7	9.7
30	CODE NATION, B'LORE	0	25	-
31	CYPRESS SEMICONDUCTOR, B'LORE	2	13.6	13.6
32	DIRECTI, MUMBAI	0	20.5	20.5
33	DEUTSCHE BANK, MUMBAI	4	12.1	-
34	MEDIATEK, B'LORE	7	-	10.8
35	CREDIT SUISSE, MUMBAI	3	11.4	-
36	THOROGOOD, B'LORE	2	11	11
37	ITTIAM SYSTEMS, B'LORE	1	9.4	10.1
38	VISA INC, BANGALORE	5	18	-
39	PATH PARTNER, B'LORE	1	9	9
40	SANDVINE TECH, B'LORE	2	9.5	9.5
41	WALMART, B'LORE	0		
42	NEXT EDUCATION, B'LORE	0	10	10
43	J P MORGAN, MUMBAI	12	12	12
44	NVIDIA, PUNE	1	15.4	-
45	L & T MUMBAI	1	4.9	-
46	IBM, B'LORE	3	-	18
47	UGAM SOLUTIONS, B'LORE	5	7	-
48	KLA TENCORE S.W, CHENNAI	2	-	11.7
49	TARGET CORPN,B'LORE	9	12.7	12.7
50	RADISYS INDIA, B'LORE	3	10	10
51	WIPRO TECH, B'LORE	18	9	-
52	SOCIETE GENERALE ,B'LORE	4	12.3	-
53	TELSTRA INDIA,NOIDA	0	12	12
54	SAP LABS, B'LORE	1	10	10
55	TATA DIGITAL HEALTH,B'LORE	2	10	-
56	PHILIPS INNOVATION, B'LORE	0	6.5	7
57	CISCO, B'LORE	1	14.4	16
58	ARYAKA NETWORKS, B'LORE	2	-	7.5
59	FUTURES FIRST,B'LORE	2	9.2	-
60	MCAFEE S.W,B'LORE	4	10	10
61	INNOPLEXUS CONSULTING,BLR	0	10	-
62	TOSHIBA SOFTWARE,B'LORE	2	12	12.5
63	SMARTPRIX WEB,B'LORE	0	19	19
64	AMADEUS S W,B'LORE	0	8.1	-
65	MARUTI SUZUKI, N.DELHI	3	6.4	7.4
66	NESTLE INDIA, MUMBAI	1	6.3	-
67	WELLS FARGO, B'LORE	10	8	-
68	ONE CONVERGENCE, HYDRBD	3	_	6.5

National I	Institute of Technology Karnataka, Surathkal		_	T
69	MU-SIGMA, B'LORE	4	8.3	_
70	TREDENCE ANALYTICS, B'LORE	4	6.5	_
71	GRAPHENE HEALTHCARE, BLR	7	8.5	8.5
72	Z S ASSOCIATES, PUNE	6	6.5	_
73	EXXONMOBIL, NOIDA	7	8.8	_
74	DELOITTE, HYDERABAD	22	6.7	-
75	CENTURYLINK, B'LORE	7	6	_
76	REDBUS, B'LORE	3	7.5	7.5
77	SHEROES, B'LORE	0	12	-
78	EXL SERVICES, B'LORE	9	6	3
79	TALLY SOLUTIONS, B'LORE	1	6	6
80	CAPGEMINI, B'LORE	8	6	6
81	INTELLECT DESIGN, B'LORE	0	5	4
82	L & T INFO, MUMBAI	1	9	_
83	WESTERN DIGITAL, B'LORE	1	15.2	17
84	42 GEARS, B'LORE	3	7	7
85	FINISAR CORPN, MUMBAI	0	10	10
86	L & T CONST, CHENNAI	32	5.1	5.4
87	ITRON, B'LORE	3	8	9
88	EXICOM TELE SYSTEMS, B'LORE	3	8	_
89	ACG WORLDWIDE, B'LORE	1	4.5	_
90	CGI INFORMATION, B'LORE	2	7.1	_
91	ATKINS INDIA, B'LORE	3	-	5.2
92	LATENT VIEW, HYD	3	5	5
93	i3 CONSULTING, NEW DELHI	4	7.5	7.5
94	QUANTIPHI ANALYTICS, MUMBAI	6	7	-
95	PLANET GANGES, B'LORE	0	6	6
96	DANONE GROUP, MUMBAI	1	10	_
97	HEXAGON, HYDRBD	11	5.5	5.5
98	BASE EDUCATIONAL, B'LORE	4	4.8	4.8
99	C-DOT, B'LORE	4	10.3	10.5
100	AXIS BANK, MUMBAI	10	8.1	_
101	MAQ SOFTWARE, B'LORE	1	7	7
102	BRIDGEi2i ANALYTICS, B'LORE	0	4.5	5
103	FIRST AMERICAN, B;LORE	0	7	7
104	TATA METALIKS, KOLKATA	0	7.5	_
105	NOKIA NETWORKS, B'LORE	5	-	7
106	JOHN DEERE, PUNE	5	6.5	_
107	AMDOCS, PUNE	3	8	8
108	DQUOTIENT, BLORE	3	4	4
109	MCX, MUMBAI	3	5.5	6
110	ACCENTURE, B'LORE	12	8	8
111	INFOSYS, B'LORE	1	8	8
112	HONEYWELL, B'LORE	0	7	8
113	ROBERT BOSCH, B'LORE	2	5	-
114	CERNER CORP, B'LORE	4	-	5.5

National 1	Institute of Technology Karnataka, Surathkal			1
115	HCL TECHNOLOGIES, CHENNAI	2	_	7.5
116	BPCL, MUMBAI	16	14.1	-
117	FIAT, PUNE	0	6	6
118	RELIANCE IND, MUMBAI	20	5.5	-
119	RELIANCE CORP, MUMBAI	4	5.5	-
120	UGAM SOLUTIONS, B'LORE	5	7	-
121	INTEL TECH, B'LORE	9	12.5	15.5
122	L & T MUMBAI	1	4.9	-
123	IMPACT ANALYTICS, B'LORE	5	5.5	-
124	ORBEES MEDICAL, B'LORE	2	6	-
125	DELTA POWER, B'LORE	2	5	7
126	INFINITI RESEARCH, B'LORE	6	-	5.5
127	MICROLAND,B'LORE	2	10	-
128	ABB INDIA, B'LORE	0	5.5	-
129	INDIAN NAVY, MUMBAI	*		
130	GGK TECH, CHENNAI	3	7	7
131	TEACH FOR INDIA, B'LORE	0	4	4
132	POWER2SME, GURGAON	1	7	7.5
133	VIRTUSA COMM, B'LORE	0	5	3.3
134	CLAIRVOLEX, GURGAON	2	-	6
135	SYSTEMANTICS, B'LORE	0	10	-
136	MERCEDES-BENZ, B'LORE	10	-	8
137	TOTAL ENVIRONMENT, B'LORE	2	4	5.5
138	IPETRONIC INC, B'LORE	2	5	5
139	TCS, B'LORE	25	3.3	3.5
140	HINDUSTAN COCACOLA, B'LORE	2	7.5	-
141	KPIT TECHNOLOGIES, PUNE	0	4.5	-
142	ASHOK LEYLAND, CHENNAI	1	4	-
143	HSBC TECH, B'LORE	0	12	-
144	TATA MOTORS, PUNE	10	5.6	-
145	SJAIN VENTURES, RAIPUR	0	3.5	-
146	ROBOSOFT, UDUPI	1	4	4
147	PLAYSIMPLE GAMES, B'LORE	0	16	16
148	ARJUNAA ACADEMY, B'LORE	2	3.6	4.5
149	MIHUP COMM, B'LORE	0	10	-
150	ORACLE OFSS, B'LORE	7	7.4	7.4
151	DR REDDYS LAB, HYDERABAD	4	7.1	-
152	SIFY TECHNOLOGIES, BANGALORE	2	6	-
153	APPLIED MATERIALS, B'LORE	3		9.5
154	COGNIZANT, CHENNAI	1	10.3	10.3
155	TIME EDUCATION, B'LORE	1	6	6
156	FLYTXT MOBILE, MUMBAI	0	11	12
157	DOLCERA ITES, HYDRBD	0		5.8
158	BANK OF AMERICA, HYDERABAD	6	6.5	-
159	VIGNAN'S FOUNDATION, A.P	2		4.8
160	VEDANTA GROUP, GOA	29	8	-

National I	nstitute of Technology Karnataka, Surathkal		1	Т
161	ATKINS INDIA, B'LORE	3	-	5.1
162	COMMSCOPE NETWORKS, B'LORE	1	8.1	8.9
163	IMS HEALTH, B'LORE	4	6	-
164	HOME CREDIT,GURGAON	2	7.2	_
165	MAHINDRA & MAHINDRA, MUMBAI	0	6.3	_
166	TEJAS NETWORKS, B'LORE	0	8	8.3
167	ADP, HYDRBD	4	5	5
168	TOPPER. COM, B'LORE	0	13	13
169	BHARAT FORGE, PUNE	3	4.5	-
170	TECHNIP INDIA, CHENNAI	4	4.8	4.8
171	AFCON INFRA, MUMBAI	4	-	6
172	BNY MELLON TECH, B'LORE	0	15	15
173	MURUGAPPA GROUP, CHENNAI	1	4.3	_
174	CARTESIAN CONSULTING, BLR	3	5	_
175	SMALLDAY TECH, B'LORE	2	4.3	4.3
176	THINK & LEARN BYJUS, B'LORE	7	8	_
177	OLA- BLR	0	11.5	_
178	AASAANJOBS, MUMBAI	2	8	8
179	CLEANMAX SOLAR, B'LORE	0	4	4
180	THERMO FISHER, B'LORE	1	7.5	7.5
181	RENAULT NISSAN, T.N	6	4.2	5.2
182	EPIROC (ATLAS), PUNE	1	6.5	-
183	SKYLARK DRONES, B'LORE	0	4.3	_
184	AVANTI FELLOWS, B'LORE	1	5	5
185	DRONAMAPS, B'LORE	0	4.2	7.2
186	THERMAX, PUNE	1	4.8	-
187	TATA HITACHI, B'LORE	1	6.3	_
188	TAVANT TECH, B'LORE	6	4.5	4.5
189	EVIVE SOFTWARE, B'LORE	3	5.5	5.5
190	IOCL, NEW DELHI	9	16.7	-
191	FEDERAL MOGUL, GURGAON	2	4	_
192	STARHOME MACH, B'LORE	0	6	6
	STERLITE TECHNOLOGIES,			0
193	CHENNAI	8	5	-
194	THE GATE ACADEMY	1	-	6.5
195	L &W BUILDING SOLUTIONS,BLR	0	5.4	_
196	SIGTUPLE, B'LORE	0	6	6
197	BOOKEVENTZ.COM, B'LORE	0	6	-
198	IRCON INTERNATIONAL, N.DELHI	5	9.3	-
199	SYSCLOUD, CHENNAI	2	-	5
200	ANGLO EASTERN SHIP, MUMBAI	0	18	-
201	PRESIDENCY UNIVERSITY, BLR	5	-	6
202	PARUL UNIVERSITY, M.P	0	-	5
203	HOSPIRA, CHENNAI	2	-	6.6
204	MIC COLLEGE OF TECH, A.P	1	-	3.8
205	THEMATH COMPANY,B'LORE	2	4.5	_
206	RAO EDU SOLUTIONS, MUMBAI	9	4	

National I	nstitute of Technology Karnataka, Surathkal		_	
207	RAOADO, B'LORE	0	4.5	-
208	TATA SPONGE, ODISHA	2	5.1	-
209	RELIANCE JIO, MANGALORE	0	4.5	-
210	TOWER RESEARCH CAPITAL,	0	32	-
211	WESTLINE, AHMEDABAD	8	3.5	-
212	CONTINENTAL AG, B'LORE	1	6.5	-
213	ALPHA 9 MARINE SERVICES	0	5.5	-
214	GLAXOSMITHKLINE, RAJMNDRY	1	7.3	-
215	HPCL, MUMBAI	4	16.7	-
216	MPHASIS, B'LORE	7	4	-
217	CVRS EDUCATIONAL,	10	5	5
218	NARAYANA GROUP, B'LORE	20	5	5
219	VOLVO INDIA, B'LORE	2	5.5	-
220	APPRANIX, CHENNAI	1	4	4
221	MOOG INDIA, B'LORE	2	-	6
222	VBC FERRO ALLOYS,	17	3	3.6
223	LUMMUS TECH , NOIDA	0	5.5	5.5
224	SAPIENT,	1	-	4.5
225	TURBO ENERGY, CHENNAI	0	4.6	-
226	MYLAN LABS, B'LORE	0	2.75	-
227	VALUED EPISTEMICS	0	6	-
228	LUPIN LIMITED, MUMBAI	5	5.5	-
229	AVI NETWORKS	0	10	10
230	JAIN COLLEGE OF ENGG,	1	-	4.2
231	TEXTRON INDIA, B'LORE	1	4.5	-
232	E-LITMUS, B'LORE	*	3.6	-
233	SELEKT, MUMBAI	*	8	8
234	VMWARE, B'LORE	1	22	-
235	WABCO INDIA, CHENNAI	2	5.5	7
236	CG POWER, MUMBAI	1	-	8.4
237	EMPLOY WISE, GURUGRAM	*	8	-
238	BEL 'B'LORE	8	10	-
239	BOEING INDIA, B'LORE	4	8	-
240	GOOGLE INDIA	1	34.1	-
241	ACCELTREE SOFTWARE	2	3	3
242	PRDC, B'LORE	*	-	4.5
243	SONATA SOFTWARE, B'LORE	*	4	4
244	ENGINEERS INDIA,	*	14	-
245	THE SANDUR	*	3.6	
246	MANGANESE,BELLARY WIRTGEN INDIA, PUNE	*	4.5	-
247	JOHNSON CONTROLS,	*	5	-
248	ADAGE AUTOMATION,GOA	*	5	-
249	JSW STEEL, MUMBAI	*	5.5	
250	VOYANTS SOLUTIONS	*	J.J _	4.5
251	NESTAWAY TECH,	*	8	8
252	NMTRONICS INDIA, NOIDA	*	5.2	_
404	Timilionico midili, noidh		3.4	-

COMPANIES: 256		TOTAL JOBS : 94	0	
256	ALSHAYA INDIA, B'LORE	*	4.25	-
255	AKS IT SERVICES, B'LORE	*	6	-
254	VISTEON CORPORATION, CHENNAI	*	7	-
253	SHRIRAM PISTONS, N.DELHI	*	4.7	-

NEW ORGANIZATIONS VISITED NITK IN 2017-18:47

### **BRANCHWISE PLACEMENTS 2017-2018:**

Branch	Total Eligible Students	Placed
UG (B.Tech)		
CIVIL	72	56
CHEMICAL	38	36
COMPUTER	94	94
E & C	94	85
E & E	89	80
IT	93	91
MECHANICAL	123	109
METALLURGY	28	26
MINING	37	33
Total (B.Tech)	668	610
PG (M.Tech)		
STRUCTURAL ENGG.	24	9
GEO TECH.	13	2
ENVIRONMENTAL	24	6
TRANSPORTATION SYSTEM	17	2
CONSTRUCTION TECH & MGMT	17	3
MARINE STRUCTURES	12	6
WATER RESOURCE ENGG & MGMT	9	1
REMOTE SENSING & GIS	16	1
INDUSTRIAL POLLUTION CONTROL	5	2
CHEMICAL PLANT DESIGN	5	1
INDUSTRIAL BIOTECHNOLOGY	10	5
COMPUTER SCIENCE & ENGG	19	18
INFORMATION SECURITY	22	22
VLSI	21	14
COMMUNICATION ENGG	17	10
POWER & ENERGY SYSTEM	19	6
INFORMATION TECHNOLOGY	15	13
THERMAL ENGG	13	6
MANUFACTURING ENGG	13	4
MECHATRONICS	17	10
DESIGN & PRECISION	15	6
PROCESS MET.	4	3

<sup>\*</sup> Final Results awaited

MATERIALS ENGG.	14	3
NANOSCIENCE AND NANOTECHONLOGY	3	0
COMPUTATIONAL MATHEMATICS	11	8
Total(M.Tech)	355	161
MCA	82	67
MBA	40	27
MSc(Chemistry)	10	4
MSc(Physics)	4	1
	1159	870

### **TOTAL NO OF PLACEMENTS** – 870

(With 63 students getting placed in two companies)

	National Institute of Technology Karnat CEMENT BREAKUP 2017-18				
S1.			No. of	Branchwise breakup	
No.	Name of Company	Date of visit	Students Placed	UG	PG
1	MICROSOFT, HYD	Aug. 03, 2017	22	CS 14, IT 8	-
2	INTUIT, B'LORE	Aug. 03, 2017	5	CS 05	-
3	MYNTRA DESIGN, B'LORE	Aug. 03, 2017	5	CS 03, IT 02	-
4	UBER INDIA SYSTEMS, B'LORE	Aug. 04, 2017	1	CS 01	-
5	ORACLE, B'LORE	Aug. 04, 2017	15	CS 08, IT 05, EC 01	CSE 01
6	BAJAJ AUTO, PUNE	Aug. 04, 2017	5	MECH 04, EEE 01	-
7	ADOBE SYSTEMS, B'LORE	Aug. 04, 2017	3	CS 02, IT 01	-
8	NETAPP, B'LORE	Aug. 05, 2017	2	-	CSE 01, IT 01
9	TEXAS INSTRUMENTS, B'LORE	Aug. 05, 2017	10	EC 06, EEE 02	VLSI 02
10	SAMSUNG R&D, B'LORE	Aug. 05, 2017	36	CS 09, IT 14, EC 13	-
11	QUALCOMM, B'LORE	Aug. 06, 2017	29	IT 02, EC 06, EEE 03	IT 02, VLSI 06, CMA 02, CSE 03, IS 03, CE 02
12	ARCESIUM INDIA, HYDRBD	Aug. 06, 2017	2	CS 01, IT 01	-
13	DELL R&D, B'LORE	Aug. 07, 2017	8	CS 01	CSE 01, IS 02, CMA 03, MCA 01
14	ALTISOURCE, B'LORE	Aug. 07, 2017	4	CS 01, IT 01, EC 02	-
15	MORGAN STANLEY, MUMBAI	Aug. 07, 2017	3	CS 01, IT 01	MCA 01
16	HERO MOTOCORP, N DELHI	Aug. 08, 2017	1	MECH 01	-
17	TESCO, B'LORE	Aug. 08, 2017	5	CS 01, IT 03	IT 01
18	G E INDIA, B'LORE	Aug. 08, 2017	3	-	TH 02,ML 01
19	GOLDMAN SACHES, B'LORE	Aug. 09, 2017	1	IT 01	-
20	AMAZON, HYDRBD	Aug. 09, 2017	4	CS 01, ME 01, MT 01	IS 01
21	FIDELITY, B'LORE	Aug. 10, 2017	21	CS 06, IT 09, EC 02, EEE 01, MET 02, CH 01	-
22	VE COMMERCIAL VEHICLES, M.P	Aug. 10, 2017	3	МЕСН 03	-
23	SYMANTEC SOFTWARE, CHENNAI	Aug. 11, 2017	1	-	CSE 01
24	ARISTA NETWORKS, B'LORE	Aug. 11, 2017	2	CS 01, IT 01	-
25	RBS, MUMBAI	Aug. 11, 2017	3	CS 01, EC 02	-

	National Institute of Technology Karnat	aka, Surainkai	1		
26	CITICORP SERVICES, MUMBAI	Aug. 11, 2017	16	CS 07, IT 02, EC 03, EEE 01	MCA 03
27	INFORMATICA, B'LORE	Aug. 12, 2017	2	-	MCA 02
28	ZENDRIVE, B'LORE	Aug. 12, 2017	0	_	_
29	RIVERBED TECH, B'LORE	Aug. 13, 2017	5	CS 01, IT 01	CSE 01, IS 02
30	CODE NATION, B'LORE	Aug. 13, 2017	0	-	-
31	CYPRESS SEMICONDUCTOR, B'LORE	Aug. 14, 2017	2	EEE 01	DP 01
32	DIRECTI, MUMBAI	Aug. 15, 2017	0	-	-
33	DEUTSCHE BANK, MUMBAI	Aug. 16, 2017	4	IT 01, EC 01, EEE 02	-
34	MEDIATEK, B'LORE	Aug. 16, 2017	7	-	VLSI 05, CE 02
35	CREDIT SUISSE, MUMBAI	Aug. 16, 2017	3	EC 02, EEE 01	-
36	THOROGOOD, B'LORE	Aug. 17, 2017	2	EEE 01, MECH 01	-
37	ITTIAM SYSTEMS, B'LORE	Aug. 17, 2017	1	EC 01	-
38	VISA INC, BANGALORE	Aug. 17, 2017	5	CS 03, IT 02	-
39	PATH PARTNER, B'LORE	Aug. 17, 2017	1	EEE 01	_
40	SANDVINE TECH, B'LORE	Aug. 18, 2017	2	IT 01	CSE 01
41	WALMART, B'LORE	Aug. 18, 2017	0	-	_
42	NEXT EDUCATION, B'LORE	Aug. 18, 2017	0	-	-
43	J P MORGAN, MUMBAI	Aug. 18, 2017	12	CS 02, IT 05,	MCA 05
44	NVIDIA, PUNE	Aug. 19, 2017	1	EC 01	_
45	L & T MUMBAI	Aug. 19, 2017	1	MECH 01	
				WIBCII 01	CSE 02, IS
46	IBM, B'LORE	Aug. 19, 2017	3	-	01
47	UGAM SOLUTIONS, B'LORE	Aug. 19, 2017	5	CS 03, EC 01, MECH 01	
48	KLA TENCORE S.W, CHENNAI	Aug. 19, 2017	2	-	MCA 02
49	TARGET CORPN, B'LORE	Aug. 19, 2017	9	CS 01, IT 01, EC03, EEE 02	MCA 02
50	RADISYS INDIA, B'LORE	Aug. 19, 2017	3	EC 02,	IS 01
51	WIPRO TECH, B'LORE	Aug. 20, 2017	18	CS 01, IT 01, EC 03, EEE 09,MECH 03, MN 01	-
52	SOCIETE GENERALE, B'LORE	Aug. 20, 2017	4	IT 02, EEE 02	
53	TELSTRA INDIA, NOIDA	Aug. 20, 2017	0	-	-
54	SAP LABS, B'LORE	Aug. 21, 2017	1	-	CSE 01
55	TATA DIGITAL HEALTH, B'LORE	Aug. 21, 2017	2	IT 01, EC 01	
56	PHILIPS INNOVATION , B'LORE	Aug. 22, 2017	0	-	-
57	CISCO, B'LORE	Aug. 22, 2017	1	-	CSE 01
	<u> </u>		1	l	<u> </u>

	National Institute of Technology Karnat	aka, Surainkai	T	I	_
58	ARYAKA NETWORKS, B'LORE	Aug. 22, 2017	2	-	IS 02
59	FUTURES FIRST, B'LORE	Aug. 22, 2017	2	EEE 01, MN 01	-
60	MCAFEE S.W, B'LORE	Aug. 23, 2017	4	CS 01, IT 01	MCA 02
61	INNOPLEXUS CONSULTING, B'LORE	Aug. 23, 2017	0	-	-
62	TOSHIBA SOFTWARE, B'LORE	Aug. 24, 2017	2	EC 02	
63	SMARTPRIX WEB, B'LORE	Aug. 25, 2017	0	-	-
64	AMADEUS S W, B'LORE	Aug. 26, 2017	0	-	-
65	MARUTI SUZUKI, N.DELHI	Aug. 26, 2017	3	MECH 01	MC 01, TH 01
66	NESTLE INDIA, MUMBAI	Aug. 28, 2017	1	MECH 01	
67	WELLS FARGO, CHENNAI	Aug. 28, 2017	10	IT 04, EC 03, EEE 01, MECH 01, CIVIL 01	
68	ONE CONVERGENCE, HYDRBD	Aug. 28, 2017	3	-	IT 01, MCA 02
69	MU-SIGMA, B'LORE	Aug. 28, 2017	4	CS 01, EEE 03	
70	TREDENCE ANALYTICS, B'LORE	Aug. 28, 2017	4	CS 01, CH 01, CIVIL 02	
71	GRAPHENE HEALTHCARE, BLR	Aug. 28, 2017	7	CS 03, IT 01, EC 01, EEE 02	
72	Z S ASSOCIATES, PUNE	Aug. 28, 2017	6	MECH 04, CIVIL 02	
73	EXXONMOBIL, NOIDA	Aug. 29, 2017	7	EEE 01, MECH 03, CH 01, CIVIL 01, MT 01	
74	DELOITTE, HYDERABAD	Aug. 29, 2017	22	IT 03, EC 03, EEE 04, CH 03, CIVIL 02, MECH 07	
75	CENTURYLINK, B'LORE	Aug. 30, 2017	7	CS 03, IT 01,EC 01, EEE 02	
76	REDBUS, B'LORE	Aug. 30, 2017	3	IT 01	IT 01, MCA 01
77	SHEROES, B'LORE	Aug. 30, 2017	0		
78	EXL SERVICES, B'LORE	Aug. 31, 2017	9	CIVIL 02, MECH 01, MN 01	MCA 05
79	TALLY SOLUTIONS, B'LORE	Aug. 31, 2017	1	CS 01	
80	CAPGEMINI, B'LORE	Sept. 01, 2017	8	CS 01, IT 01, EC 01, EEE 02, CIVIL 01, MECH 01, MN 01	
81	INTELLECT DESIGN, CHENNAI	Sept. 03, 2017	0	-	-

	National Institute of Technology Karnataka, Surathkal					
82	L & T INFO, MUMBAI	Sept. 03, 2017	1	EC 01	-	
83	WESTERN DIGITAL, B'LORE	Sept. 03, 2017	1	CS 01	-	
84	42 GEARS, B'LORE	Sept. 04, 2017	3	CS 02,	MCA 01	
85	FINISAR CORPN, MUMBAI	Sept. 04, 2017	0	_	-	
86	L & T CONST, CHENNAI	Sept. 05, 2017	32	CIVIL 15, EEE 02, MECH 04	ST 06, CTM 02, GT 01, PES 01, ENV 01	
87	ITRON, B'LORE	Sept. 06, 2017	3	-	CSE 01, IS 02	
88	EXICOM TELE SYSTEMS, B'LORE	Sept. 07, 2017	3	EC 01, EEE 02		
89	ACG WORLDWIDE, MUMBAI	Sept. 07, 2017	1	MECH 01		
90	CGI INFORMATION, B'LORE	Sept. 07, 2017	2	IT 01, MECH 01		
91	ATKINS INDIA, B'LORE	Sept. 07, 2017	3	-	GTE 01, ENV 01, ST 01	
92	LATENT VIEW, HYD	Sept. 08, 2017	3	EC 01, EEE 01, MN 01		
93	i3 CONSULTING, NEW DELHI	Sept. 08, 2017	4	CIVIL 1, MECH 01, MN 02	-	
94	QUANTIPHI ANALYTICS, MUMBAI	Sept. 08, 2017	6	EC 02, EEE 01, MECH 01, MN 01, MT 01		
95	PLANET GANGES, B'LORE	Sept. 09, 2017	0	-	-	
96	DANONE GROUP, MUMBAI	Sept. 16, 2017	1	MECH 01	-	
97	HEXAGON, HYDRBD	Sept. 18, 2017	11	CIVIL 04, MECH 04, EC 01, MN 01, MT 01	-	
98	BASE EDUCATIONAL, B'LORE	Sept. 18, 2017	4	CHEM 01	MSC CHEM 04	
99	C-DOT, B'LORE	Sept. 19, 2017	4	EC 03, IT 01	-	
100	AXIS BANK, MUMBAI	Sept. 19, 2017	10	CIVIL 02, CHEM 02, MECH 02, EC 01, IT 01, MN 02	-	
101	MAQ SOFTWARE, B'LORE	Sept. 19, 2017	1	IT 01	-	
102	BRIDGEi2i ANALYTICS, B'LORE	Sept. 20, 2017	0	-	-	
103	DIDOM AMERICAN DIODE	Sept. 20, 2017	0	-	-	
	FIRST AMERICAN, B;LORE	Sept. 20, 2017				
104	TATA METALIKS, KOLKATA	Sept. 20, 2017 Sept. 20, 2017	0	-	-	
	· · · · · · · · · · · · · · · · · · ·	•	0 5	-	- MCA 04, IT 01	
104	TATA METALIKS, KOLKATA NOKIA NETWORKS,	Sept. 20, 2017		- - MECH 03, IT 02	,	
104	TATA METALIKS, KOLKATA NOKIA NETWORKS, B'LORE	Sept. 20, 2017 Sept. 20, 2017	5	- MECH 03, IT	,	

	National Institute of Lechnology Karnati			1	T
109	MCX, MUMBAI	Sept. 22, 2017	3	CS 01	IT 01, IS 01
110	ACCENTURE, B'LORE	Sept. 23, 2017	12	EEE 01	CMA 01, IT 02, CSE 01, ENV 02, IS 01, MC 01, DP 01, ML 01, CTM 01
111	INFOSYS, B'LORE	Sept. 24, 2017	1		IS 01
112	HONEYWELL, B'LORE	Sept. 25, 2017	0		
113	ROBERT BOSCH, B'LORE	Sept. 25, 2017	2	EEE 02	
114	CERNER CORP, B'LORE	Sept. 25, 2017	4		MCA 04
115	HCL TECHNOLOGIES, CHENNAI	Sept. 25, 2017	2	-	IS 02
116	BPCL, MUMBAI	Sept. 25, 2017	16	CHEM 06, CIVIL 04, CS 02, MECH 04	-
117	FIAT, PUNE	Sept. 25, 2017	0	-	-
118	RELIANCE IND, MUMBAI	Sept. 26, 2017	20	CHEM 10, MECH 05, EEE 04, MT 01	-
119	RELIANCE CORP, MUMBAI	Sept. 26, 2017	4	EC 02, EEE 01, CS 01	-
120	UGAM SOLUTIONS, B'LORE	Sept. 27, 2017	5	CS 03, EC 01, MECH 01	-
121	INTEL TECH, B'LORE	Sept. 27, 2017	9	EEE 01, EC 01	IT 02, IS 01, CS 01, CMA 01, CE 01, VLSI 01
122	L & T MUMBAI	Sept. 27, 2017	1	MECH 01	-
123	IMPACT ANALYTICS, B'LORE	Sept. 28, 2017	5	IT 01, MT 03, MECH 01	-
124	ORBEES MEDICAL, B'LORE	Oct. 04, 2017	2	CIVIL 01, MN 01	-
125	DELTA POWER, B'LORE	Oct. 04, 2017	2	EEE 01	PES 01
126	INFINITI RESEARCH, B'LORE	Oct. 06, 2017	6	-	MBA 06
127	MICROLAND,B'LORE	Oct. 06, 2017	2	MECH 02	-
128	ABB INDIA, B'LORE	Oct. 07, 2017	0	-	-
129	INDIAN NAVY, MUMBAI	Oct. 07, 2017	*	-	-
130	GGK TECH, CHENNAI	Oct. 07, 2017	3	IT 01, EEE 01	MCA 01
131	TEACH FOR INDIA, B'LORE	Oct. 10, 2017	0	-	-
132	POWER2SME, GURGAON	Oct. 10, 2017	1	-	MCA 01
133	VIRTUSA COMM, B'LORE	Oct. 11, 2017	0		
134	CLAIRVOLEX, GURGAON	Oct. 17, 2017	2	-	CE 02
135	SYSTEMANTICS, B'LORE	Oct. 19, 2017	0	-	-
136	MERCEDES-BENZ, B'LORE	Oct. 23, 2017	10		MC 05, PES 03, CSE 01, TH 01
137	TOTAL ENVIRONMENT, B'LORE	Oct. 24, 2017	2	CIVIL 01, MN 01	ST 01
138	IPETRONIC INC, B'LORE	Oct. 24, 2017	2		MCA 02

	National Institute of Lechnology Karnat	ика, зиганка	1	1	1
139	TCS, B'LORE	Oct. 25, 2017	25	CIVIL 03, CHEM 01, EEE 04, EC 01, IT 01, MN 01	MCA 12, CMA 01, DP 01
140	HINDUSTAN COCACOLA, B'LORE	Oct. 26, 2017	2	MECH 02	-
141	KPIT TECHNOLOGIES, PUNE	Oct. 27, 2017	0	-	-
142	ASHOK LEYLAND, CHENNAI	Oct. 27, 2017	1	MECH 01	-
143	HSBC TECH, B'LORE	Oct. 30, 2017	0	-	-
144	TATA MOTORS, PUNE	Oct. 30, 2017	10	MECH 06, EEE 04	-
145	SJAIN VENTURES, RAIPUR	Oct. 30, 2017	0	-	-
146	ROBOSOFT, UDUPI	Oct. 30, 2017	1	IT 01	-
147	PLAYSIMPLE GAMES, B'LORE	Nov. 01,2017	0	-	
148	ARJUNAA ACADEMY, B'LORE	Nov. 02,2017	2	CIVIL 01, MN 01	-
149	MIHUP COMM, B'LORE	Nov. 02,2017	0	-	-
150	ORACLE OFSS, B'LORE	Nov. 03,2017	7	MECH 02, EC 01	DP 01, CMA 01, CS 01, MCA 01
151	DR REDDYS LAB, HYDERABAD	Nov. 03,2017	4	CHEM 03, MECH 01	-
152	SIFY TECHNOLOGIES, BANGALORE	Nov. 03,2017	2	EC 02	-
153	APPLIED MATERIALS, B'LORE	Nov. 03,2017	3	-	DP 01, TH 01, MC 01
154	COGNIZANT, CHENNAI	Nov. 04,2017	1	IT 01	-
155	TIME EDUCATION, B'LORE	Nov. 07,2017	1	CIVIL 01	-
156	FLYTXT MOBILE, MUMBAI	Nov. 07,2017	0	-	-
157	DOLCERA ITES, HYDRBD	Nov. 08,2017	0	-	-
158	BANK OF AMERICA,HYDERABAD	Nov. 08,2017	6	CS 02, IT 02, EC 01, EEE 01	-
159	VIGNAN'S FOUNDATION, A.P	Nov. 09,2017	2	-	CE 02
160	VEDANTA GROUP, GOA	Nov. 10,2017	29	MECH 08, EEE 04, MN 09, CHEM 03, MT 03, EC 01, CIVIL 01	-
161	ATKINS INDIA, B'LORE	Nov. 11,2017	3	-	ST 01, GTE 01, ENV 01
162	COMMSCOPE NETWORKS, B'LORE	Nov. 11,2017	1	-	IS 01
163	IMS HEALTH, B'LORE	Nov. 13,2017	4	CHEM 01, MECH 01, MN 01, MT 01	-
164	HOME CREDIT,GURGAON	Nov. 14,2017	2	-	MCA 02
-					

_	National Institute of Technology Karnat	aka, Suratnkai	,		
165	MAHINDRA & MAHINDRA, MUMBAI	Nov. 15,2017	0	-	-
166	TEJAS NETWORKS, B'LORE	Nov. 16,2017	0	-	-
167	ADP, HYDRBD	Nov. 16,2017	4	-	MCA 04
168	TOPPER. COM, B'LORE	Nov. 16,2017	0	-	-
169	BHARAT FORGE, PUNE	Nov. 18,2017	3	MT 03	-
170	TECHNIP INDIA, CHENNAI	Dec. 04, 2017	4	CIVIL 01	ST 01, MS 02
171	AFCON INFRA, MUMBAI	Dec. 14, 2017	4	-	MS 04
172	BNY MELLON TECH, B'LORE	Jan 03, 2018	0	-	-
173	MURUGAPPA GROUP, CHENNAI	Jan 03, 2018	1	MECH 01	-
174	CARTESIAN CONSULTING, BLR	Jan 04, 2018	3	CIVIL 01, EC 01, EEE 01	-
175	SMALLDAY TECH, B'LORE	Jan 05, 2018	2		MCA 02
176	THINK & LEARN BYJUS, B'LORE	Jan 05, 2018	7	CIVIL 02, IT 01, MT 01, EC 01, CHEM 01, MECH 01	-
177	OLA- BLR	Jan 08, 2018	0	-	-
178	AASAANJOBS, MUMBAI	Jan 09, 2018	2	CS 01	CSE 01
179	CLEANMAX SOLAR, B'LORE	Jan 10, 2018	0	-	-
180	THERMO FISHER, B'LORE	Jan 10, 2018	1	-	CE 01
181	RENAULT NISSAN, T.N	Jan 11, 2018	6	MECH 01	ME 02, MC 01, DP 01, PES 01
182	EPIROC (ATLAS), PUNE	Jan 11, 2018	1	MN 01	-
183	SKYLARK DRONES, B'LORE	Jan 11, 2018	0	-	-
184	AVANTI FELLOWS, B'LORE	Jan 16, 2018	1	CIVIL 01	-
185	DRONAMAPS, B'LORE	Jan 18, 2018	0	-	-
186	THERMAX, PUNE	Jan 18, 2018	1	MECH 01	-
187	TATA HITACHI	Jan 18, 2018	1	MECH 01	-
188	TAVANT TECH, B'LORE	Jan 19, 2018	6	EEE 01	MCA 05
189	EVIVE SOFTWARE, B'LORE	Jan 20, 2018	3	-	MBA 02, MCA 01
190	IOCL, NEW DELHI	Jan 22, 2018	9	EC 04, EEE 05	-
191	FEDERAL MOGUL, GURGAON	Jan 23, 2018	2	MECH 02	-
192	STARHOME MACH, B'LORE	Jan 23, 2018	0	-	-
193	STERLITE TECHNOLOGIES, CHENNAI	Jan 24, 2018	8	CHEM 03, MECH 04, EEE 01	-
194	THE GATE ACADEMY	Jan 25, 2018	1	-	TSE 01
195	L &W BUILDING SOLUTIONS,BLR	Jan 27, 2018	0	-	-
196	SIGTUPLE, B'LORE	Jan 29, 2018	0	-	-

197   BOOKEVENTZ.COM,   Jan 31, 2018   0   -     -         198   N.DELH		National Institute of Technology Karnat	ика, заганка	l		T
199   N.DELHI	197	BOOKEVENTZ.COM, B'LORE	Jan 31, 2018	0	-	-
ANGLO EASTERN SHIP,   Feb. 01, 2018   *   -     -	198		Feb. 01, 2018	5	CV 04, EC 01	-
December 2015   December 201	199	SYSCLOUD, CHENNAI	Feb. 03, 2018	2	-	MCA 02
December 1   December 2   December 3   December 3   December 4   December 3   December 4   Dec	200	ANGLO EASTERN SHIP,	Feb. 01, 2018	*	-	-
203   HOSPIRA, CHENNAI	201	· · · · · · · · · · · · · · · · · · ·	Feb. 05, 2018	5	-	01, TSE 01,
MIC COLLEGE OF TECH, A.P.   Feb. 09, 2018   1   -     DP 01	202	PARUL UNIVERSITY, M.P	Feb. 06, 2018	0		
A.P	203	HOSPIRA, CHENNAI	Feb. 09, 2018	2	-	•
COMPANY,B'LORE	204	· · · · · · · · · · · · · · · · · · ·	Feb. 09, 2018	1	-	DP 01
RAO EDU   SOLUTIONS,MUMBAI   Feb. 12, 2018   9	205		Feb. 09, 2018	2		-
TATA SPONGE, ODISHA	206		Feb. 12, 2018	9	CIVIL 01, EEE 01, MECH 01, MT 01, MIN	
208   TATA SPONGE, ODISHA   Feb. 14, 2018   2   MT 01   -	207	RAOADO, B'LORE	Feb. 13, 2018	0	-	-
TOWER RESEARCH	208	TATA SPONGE, ODISHA	Feb. 14, 2018	2	· · · · · · · · · · · · · · · · · · ·	-
210   CAPITAL,   Feb 16, 2018   0   -     -	209	RELIANCE JIO,	Feb. 26, 2018	0	-	-
WESTLINE, AHMEDABAD	210		Feb 16, 2018	0	-	-
213   ALPHA 9 MARINE   Feb. 20, 2018   0   -     -	211	WESTLINE, AHMEDABAD	Feb. 17, 2018	8	EEE 02, MECH 03, MT 01, MN	-
SERVICES	212	CONTINENTAL AG, B'LORE	Feb. 20, 2018	1	EEE 01	-
RAJMNDRY	213		Feb. 20, 2018	0	-	-
216 MPHASIS, B'LORE   Feb. 28, 2018   7     CIVIL 02, EC 02, EEE 01, MECH 01, MN 01   -	214		Feb. 21, 2018	1	MECH 01	-
216 MPHASIS, B'LORE   Feb. 28, 2018   7   02, EEE 01, MECH 01, MN 01   -	215	HPCL, MUMBAI	Feb. 22, 2018	4		-
217         CVRS EDUCATIONAL,         Mar. 05, 2018         10         MN 01         02, ML 01, IPC 01           218         NARAYANA GROUP, B'LORE         Mar. 08, 2018         20         CIVIL 04, MECH 01, CHEM 01, MECH 01, MT 02, MN 03         ENV 01, MSC (CY )03, MSC (PHY) 03           219         VOLVO INDIA, B'LORE         Mar. 08, 2018         2         MT 02         -	216	MPHASIS, B'LORE	Feb. 28, 2018	7	02, EEE 01, MECH 01,	-
NARAYANA GROUP,   Mar. 08, 2018   20   MECH 01,   CHEM 01,   MT 02, MN   MT 02, MN   MSC (CY )03,   MSC (PHY)   O3   O1   CHEM 01   CHEM 01,   MT 02, MN   MSC (PHY)   O3   O1   CHEM 01,   MT 02, MN   MSC (PHY)   O3   O1   CHEM 01,   MT 02   CHEM 01,   MSC (CY )03,   MT 02   CHEM 01,   MT 02,   MT 02   CHEM 01,   M	217	CVRS EDUCATIONAL,	Mar. 05, 2018	10		02, ML 01,
	218	•	Mar. 08, 2018	20	MECH 01, CHEM 01, MT 02, MN	ENV 01, MSC (CY)03, MSC(PHY)
220 APPRANIX, CHENNAI Mar. 09, 2018 1 EC 01 -	219	VOLVO INDIA, B'LORE	Mar. 08, 2018	2	MT 02	-
	220	APPRANIX, CHENNAI	Mar. 09, 2018	1	EC 01	-

	National Institute of Technology Karna	taka, Surathkal	1		1
221	MOOG INDIA, B'LORE	Mar. 16, 2018	2	-	MC 01, DP 01
222	VBC FERRO ALLOYS,	Mar. 16, 2018	17	MT 04, MN 03	PM 03, MBA 07
223	LUMMUS TECH , NOIDA	Mar. 23, 2018	0		
224	SAPIENT,	Mar. 27, 2018	1	-	MCA 01
225	TURBO ENERGY, CHENNAI	April 04, 2018	0	-	
226	MYLAN LABS, B'LORE	April 07, 2018	0	-	
227	VALUED EPISTEMICS	April 07, 2018	0	1	
228	LUPIN LIMITED, MUMBAI	April 10, 2018	5	MECH 04, CHEM 01	-
229	AVI NETWORKS	April 10, 2018	0	-	-
230	JAIN COLLEGE OF ENGG,	April 11, 2018	1		WRE 01
231	TEXTRON INDIA, B'LORE	April 11, 2018	1	MECH 01	-
232	E-LITMUS, B'LORE	April 13, 2018	0	-	-
233	SELEKT, MUMBAI	April 14, 2018	0	-	-
234	VMWARE, B'LORE	April 16, 2018	1	IT 01	-
235	WABCO INDIA, CHENNAI	April 16, 2018	2	-	ME 01, MC 01
236	CG POWER, MUMBAI	April 17, 2018	1	1	PES 01
237	EMPLOY WISE	April 17, 2018	*		
238	BEL 'B'LORE	April 19, 2018	8	CIVIL 01, EC 01, MECH 04, CS 02	-
239	BOEING INDIA, B'LORE	April 24, 2018	4	MECH 03, CS 01	-
240	GOOGLE INDIA	April 24, 2018	1	CS 01	-
241	ACCELTREE SOFTWARE	April 28, 2018	2	CS 01	MCA 01
242	PRDC	April 30, 2018	*		-
243	SONATA SOFTWARE, B'LORE	April 30, 2018	*		
244	ENGINEERS INDIA, NEW DELHI	May 02, 2018	*		-
245	THE SANDUR MANGANESE, BELLARY	May 02, 2018	*		-
246	WIRTGEN INDIA, PUNE	May 03, 2018	*		-
247	JOHNSON CONTROLS	May 04, 2018	*		-
248	ADAGE AUTOMATION, GOA	May 08, 2018	*		-
249	JSW STEEL, MUMBAI	May 09, 2018	*		-
250	VOYANTS SOLUTIONS	May 10, 2018	*	-	
251	NESTAWAY TECH	May 11, 2018	*		
252	NMTRONICS INDIA, NOIDA	May 11, 2018	*		-
253	SHRIRAM PISTONS, DELHI	May 12, 2018	*		-
254	VISTEON CORPORATION, CHENNAI	May 14, 2018	*		-
255	AKS IT SERVICES, B'LORE	May 16, 2018	*		-
256	ALSHAYA INDIA, B'LORE	May 19, 2018	*		-

# National Institute of Technology Karnataka, Surathkal Training Slots for the Academic Year 2017-18

Sl. No.	Branch	No. of Slots
01	Chemical Engineering	62
02	Civil Engineering	31
03	Computer Engineering	63
04	Electronics & Communication Engineering	50
05	Electrical & Electronics Engineering	73
06	Information Technology	58
07	Mechanical Engineering	117
08	Metallurgical & Material Engineering	53
09	Mining Engineering	82
	Total Number of Students	589

#### 17 SPECIAL INITIATIVES

### 17.1 Scholarships / Assistanceship

As per the guidelines of Govt. of India (MHRD) Merit and Merit cum Means Scholarship have been awarded to I B.Tech. students every year who have got 60% above marks in +2 exam and the same will be continued based on their performance in II, III & IV B. Tech. Examinations. In addition, based on performances the semester at Examinations scholarship have been awarded to the students of II, III and IV year B.Tech. Several other scholarship awarded by Central and State Govts., Endowments, Institution of Engineers etc., are enjoyed by the students. SC/ST students will be paid postmatric scholarship and facilities of Fee Concessions.

The Post Graduate students who have qualified with GATE are paid a sum of Rs.12,400/- as P.G. stipend per month. M.Tech. (Q.I.P.) Regular and (Q.I.P.) Poly are paid Rs.4,000/- per month.

Full-Time Ph.D. Research Scholars are paid institute scholarship @ Rs.25,000/-p.m for *I* and *II* year and *III*, *IV* and *V* year Rs. 28,000/- per month. Ph.D. QIP( R) students are paid Fellowship of Rs.9,000/- per month and a contingent grant of Rs.10,000/- per year.

# 17.2 MEMORANDUM OF UNDERSTANDING (MOUs)

- Rambal India limited, Thiruporur, Tamil Nadu, 5<sup>th</sup> March 2018, 3 years TEQIP
- University of District of Columbia (UDC) school of Engineering and applied Science Washington, USA, 18 January 2018, 5 years
- Internshala, 18th January 2018, 3 years
- Gheorghe Asachi, Technical university of Lasi, Romania, under Erasmus + Programme, 9th January 2018
- Networkers Home New Delhi, 6<sup>th</sup> December 2017, 1 year

- Mangalore Refinary and Petrochemicals Ltd. (MRPL), 4 the December 2017, 10 years
- IEEE Power and Energy Society Bangalore chapter, 25<sup>th</sup> October, 2017
- AMD india Private limited (AMD India), 8th April 2017, 2 years
- Infineon Technologies Asia Pacific Pte Ltd, 6th April, 2017, 5 years

# 17.3 Innovations & Technology Transfer

### DEPARTMENT OF CIVIL ENGINEERING

INNOVATIONS:-Details of Innovation:-Isolated, characterized and Identified Iron Bacteria - Acidithiobacillus Ferroxidans BMSNITK17 (USA Genbank Accession Number - MG271840),Basavaraju Manu/Baskar Malwa

### DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING

1. Dr. Shubhanga KN, Mr. Vikas Singh (M.Tech. Student). "Development of Power System Analysis packages in open-source software", SCILAB under FOSSEE, ICT, Government of India, Coordinated by, Department of Chemical Engg., IIT Bombay.

### MECHANICAL ENGINEERING

- 1. Swirl Generator for Human Arterial Network (Patent filed), Prashantha B, Anish S
- 2. Dual fence with tapered trailing edge for turbine /compressor blade passage (Patent filed), Kiran K N, Anish S Multi material smart structure with controllable multi directional property
- 3. RohitRajpal, Arunkumar. M.P., Susheel Kumar, Gangadharan K V, patent filed
- 4. A Nerve Trimming Kit, Abhijith J Kamath (EE B tech), Gangdharan K V, Pruthviraj, KMC and CSD, Patent filed Ulnar Neuropathy Device, Omey Mohan manyar, rshesh

HarshenduGokani, Raghavendra Sirigeri Hanumesh, Rakshith Rathnakar Kamath, Dr. K V Gangadharan& Dr. Vijay Desai

- 5. KMC & CSD, Patent filed
- 6. **Automated Illizarov Apparatus,** Dr. Vijay Desai, KMC, CSD patented filed

### 17.4 Concessions For SCs, STs, Handicapped Students

All SC/ST candidates are eligible for exemption of Tuition Fees as per the order of M.H.R.D., GOI, New Delhi.

### 17.5 SC/ST CELL

In order to promptly address the grievances of the employee/students belongs to SC/ST community and to monitor the implementation of reservation and maintenance of reservation roster/register, SC-ST Cell was established in the year 2006.

In the interest of the students, the Cell also coordinates Scholarship Schemes for the benefit of the students belonging to SCs/STs category.

• In 2017-2018 Ministry of Social Justice and Empowerment under the Central Sector Top Class Education Scholarship(TCES) Scheme provides scholarship for the top 23 first year B.Tech SC students and top 12 SC students from second, third and final year each, who's family income is below 4.5lakh.

In 2017-2018, Ministry of Tribal Affairs under Central Sector Top Class Education Scholarship (TCES) scheme scholarship provides for B.Tech/ M.Tech ST students who registered online in the National Scholarship Portal and who's family income is below 4.5 lakhs. 5 ST students (Ministry of Tribal Affairs) from third and final year B.Tech are receiving TCSE scholarship.

- To cater the needs of academically weaker students, in 2017-2018, SC-ST Cell has arranged Special Coaching Classes for all theory subjects and Computer Programming Lab for first year B.Tech students belongs to SC/ST/OBCs, Minorities and PWDs category.
- SC-ST Cell has coordinated Ambedkar Jayanthi in the Institute on April 14th 2017. Shri P. Harishekaran IPS, IG, Manglore, was the Chief Guest of the function and Chief Guest delivered 2 hours and 45 minutes talk on various aspects of the society.
- To promote qualitative education in Engineering, following schemes are implemented for SC/ST students of the Institute whose family income from all sources doesn't exceed Rs.4.5 lakhs per annum.
- a) Book allowance-Rs.6000/-(Rs.3000/- per semester).
- b) Waiver of Hostel Fee (except caution deposit).
- c) Latest computer with full accessories limited to Rs.45000/- per student as one time assistance.
- d) Students Academic Performance Incentives (Rs.12,000-00 if CGPA is more than 6.5 and Rs.18,000-00 if CGPA is more than 8.0 in previous year).

Apart from the Scholarship schemes, SC-ST cell has organized many programs for the benefit of SC/ST students of this Institute.

Following are the programs organised by SC/ST Cell for our Students.

Professional Skill Development Programme

**Date:** 12th to 15th August 2017 **No. of Student Participated**: 37 **Topic Covered**: Ice Breaking, Group Discussion, Counselling, Motivation, Personality Development, Communication Skill, Body Language, CV Building & Covering Letter, Time Management, Calculation Technique, Interview, Aptitude & Logical Reasoning,

Self Enrichment Programme

**Date**: 2<sup>nd</sup> to 4<sup>th</sup> December 2017 **No. of Students Participated**: 20 **Topic Covered**: Ice Breaking, Soft Skills, Personality Development, Stress Management, Importance of Communication Skills, SWOT Analysis, Body Language, Motivation, Confidence Building, Leadership Skils, Group Dynamics, Interpersonal Relation.

### **Faculty Workshop**

Date: 2nd and 3rd March 2018

No. of Teaching /Non Teaching Staff Participated: 29

**Topic:** "Reservation Policy of

Government of India"

Resource Person: Professor Rana

### 17.6 NSS (National Service Scheme)

The NSS unit of the NITK Surathkal (formerly KREC Surathkal) has been actively rendering its services to the backward areas and villagers of Dakashina Kannada district since its inception in this institute in 1964. The NSS unit organizes regular activities like, tree plantation, clean up of the hostels and NIT K Beach, organizes blood donation, medical, dental and eye camp for the villagers. It also involves in promoting literacy to villagers irrespective of their age, and enhances educational tools and, motivates primary school children of the schools located in various villages. The NSS unit of the institute was initially part of the Mysore University, Mangalore University and Vishvesvaraya Technological University. For the year 2010, the institute has already obtained

permission from the Karnataka state NSS unit to have NSS unit which is independent to NIT K Surathkal.

# 17.7 RIGHT TO INFORMATION ACT (RTI 2005)

The Right to Information Act, 2005 empowers citizens to get information from any 'public authority'. The Central Public Information Officer (CPIO) of a public authority plays pivotal role in making the right of a citizen to information a reality. The Act casts specific duties on him and makes him liable for penalty in case of default.

# 17.8 RIGHT TO INFORMATION UNDER THE ACT

A citizen has a right to seek such information from public а authority which is held by the public authority or which is held under its control. This right includes inspection of work, documents and records; taking notes, extracts or certified copies of documents or records; and taking certified samples material held by the public authority or held under the control of the public authority. The Act gives the citizens a right to information at par with the Members of Parliament and the Members of State Legislatures. Right to Information Cell was established as per the MHRD letter No. F.19- 31/2005-TS-III dated 20.09.2005.

Suo-Moto disclosures are uploaded on the NITK website under RTI section. These disclosures are mandatory and crucial are to ensure transparency and accountability. This would reduce the load of RTI Applications which are freely available to citizens. 72 RTI Applications were received during the year 2017-18 (from 01.04.2017 to 31.03.2018).

### 17.9 YOGA CENTRE HISTORY

Yoga club is a club which organizes all sorts of meditation methods like different yam or self discipline, nivam or discipline, Asanas or position, Bandha or Mudra, Pranayama or control of breath, pratyahar determination, dharana or dedication, dhavan or meditation and Samadhi or meditation which help concentration in study, helping in attaining happiness by removing all sorts of diseases, for the purity of external life and for internal purity by following regulation of purity of thoughts. It has been organizing yoga events from the last 15 years in NITK.

### RECENT INITIATIVES

- We have planned to organize 6 batches in this year which is much more than last year in which only 3 batches were conducted in one year and previous years.
- We are also planning to conduct some special yoga practices for faculty members who are willing to join in large number. A large number of faculty members have enquired and wanted to join the yoga practices.
- We are planning to attract more number of B.TECH students by increasing the size of organizing members and also inducting 1st years into organizing committee.
- We are trying to make people aware of yoga programs more and more by notices as well through personal and group contacts.

### **MAJOR ACHIEVEMNTS**

➤ 180 people have been enrolled in this semester in different batches which is very large as compared to previous year enrolments and about same number of students are likely to enroll in the next semester yoga practices.

- More than 60 girl students have enrolled for yoga practices this year and are actively participating in almost all batches.
- Postgraduate students and Ph.D scholars have shown much more interest in practicing and learning yoga asanas and pranayams than undergraduate people.

### 17.10 TECHNICAL EDUCATION QUALITY IMPROVEMENT PROGRAMME (TEQIP)

NITK has been consistently identified as one of the top performers in implementing the TEQIP project. Based on the good performance in TEQIP-I & TEQIP-II and on the merit & strength of our Institutional Development Proposal (IDP) for TEQIP-III, our Institute has been selected to participate in TEQIP-III with a total outlay of Rs. 700 lakhs.

**TEQIP-III commenced with effect from 01-04-2017.** Our Institute has been designated as Mentor Institute for Government Engineering College, Jhalawar, Rajasthan. A Memorandum of Understanding (MoU) with MHRD and agreement between NITK and Mentee Institute GEC Jhalawar have been signed on 7th July 2017.

Action Plans for every quarter of the year 2017-18 have been sent to NPIU covering various activities envisaged by NPIU. Details of these activities have been uploaded in Public Finance Management System (PFMS). All the payment transactions in TEQIP-III are regulated under this portal only.

### Procurement

Budget allocated by NPIU for procurement of goods/equipments is Rs.350/-lakhs.Accordingly procurement activities initiated and

till 31-03-2018 a sum of Rs. 49,46,867/- has been spent on this. Procurement of other equipment/software is under progress.

#### **Academic Activities:**

Twinning activities under are progress. A team of faculty members from the Department of E & C Engineering, Department of Physics, Department of Information Technology, Department of Computer Science and Engineering, Department Mechanical Engineering, Department of Civil Engineering and School of Management have visited Mentee Institute Government Engineering College, Jhalawar. During this visit faculty members engaged classes in which regular fundamental principles of various engineering courses were emphasized. Faculty members also gave overview of the scope of various engineering disciplines and the opportunities available in industry/R&D organization and academia. A visit to central facilities such as Hostels, Library, Sports Complex, Computer Centre was also conducted and extensive feedback on the improvements to be carried out in these departments was provided.

A team of Faculty members from Government Engineering College, Jhalawar have visited NITK Surathkal and had interactions with faculty members of various departments and visited central facilities like Central Library, Central Computer Centre, Placement Cell, R. E. office etc. They were given a guided tour of the entire Institute and were briefed about the good practices put in place in these Central Facilities.

A team of Faculty members, TEQIP officers, Principal and Chairperson BoG from GEC Jhalawar visited NITK in the month of January 2018, visited various departments, various activity centers, Central Facilities and interacted with the Faculty members,

Heads of Sections and other concerned non-teaching staff.

Another team of Faculty members of GEC Jhalawar dealing with Procurement process under TEQIP-III visited NITK on 05-02-2018 and 06-02-2018 and studied the procurement procedure such as preparation of Procurement Plan, Purchase procedures, drafting specifications etc. They visited various Laboratories and interacted with the concerned faculty members and others. Procurement plans for all engineering departments of GEC Jhalawar were prepared with the help of faculty members of NITK, Surathkal.

A 5 days short term course on "IPv4 Networking Fundamentals" had been organized in the department of Information Technology during 19<sup>th</sup>-23<sup>rd</sup> March, 2018 for the benefit of I.T. and C.S. students of GEC Jhalawar.

### Improving Non-Cognitive skill of students

- (i) Finishing School programme for the benefit of students had been organized as envisaged in the IDP and as per the guidelines issued by NPIU. The activity was carried out during October 3 15, 2017 and approximately 20 students participated in this exercise.
- (ii) Induction Programme is one of the vital activities under Improve Students Learning head. Accordingly, Induction programme for the benefit of newly joined Ist year B. Tech students. (About 800 students) was organized during October 6 8 2017 and November 3 5, 2017.
- Student Learning Assessment (SLA) for the students of Department of Electronics and Communication Engineering and Department Information Technology was held during November 15 -16, 2017 in compliance with NPIU/MHRD norms. This exercise was carried out at Central Computer Centre. Approximately 440 students and the faculty members of the respective departments took part in this exercise.

### Recruitment of Asst. Professors for TEOIP focus states:

Selection of Assistant Professors on contract to TEQIP-III institutions of focus states was a new additional activity introduced by the MHRD/NPIU in the project. With the cooperation from various departments, this exercise was completed during December 11- 12, 2017 at NITK.

### Faculty and Staff Development:

During the project duration i.e. August 2017 to March 2020, the provision for budgetary estimate under Faculty and Staff Development and Motivation head for faculty members and non-teaching staff is as under:

- (i) For faculty members of NITK to attend Training programmes/ Conferences/Seminars/Workshops within India, a provision of Rs. 50,000/- per faculty has been made.
- (ii) For non-teaching and supporting staff of NITK to attend Training programmes/Workshops within India a provision of Rs. 40,000/- per staff member has been made. (Both the above figures of Rs. 50,000/- and Rs. 40,000/- have been arrived at after study of the Institute norms for travel, accommodation and other miscellaneous expenses).

# Students attending conference and internship in Industry:

(i) TEQIP-III provides for enhancement of Research & Development and Innovation among the students of UG, PG and Ph.D Scholars in the Institution. Following activities are permitted under this scheme:

Attending workshops, Technology exhibitions, publications by UG and PG (Regular) and M. Tech (by Research) and Ph.D Scholars attending conferences/presentation of research papers in National/ International conferences held **in India**.

Travelling expenses (travel by Train by III AC class)

Per diem @ Rs. 950/- (includes Boarding, lodging) per day.

Sundry expenses/allowances as per actual against cash memos.

Above expenditure will be subject to a **maximum limit of Rs. 18,000/-** per student subject to the availability of TEQIP funds under particular account head. A student can avail this facility **only once** during the TEQIP-III phase. A total of **37 students** have availed this benefit during the year 2017-18.

(ii) It has been made mandatory that the UG students should undergo three internships in industry each spanning at least 4 weeks before completion of their UG programme, as per the guidelines issued by NPIU.

In accordance with the above mandatory clause of NPIU, UG students of this Institute are allowed financial support from TEQIP-III fund as permissible under sub-activity 2.2.a. of list of permissible and non-permissible expenditure published by NPIU.

(iii) In accordance with the provisions of instructions of NPIU, reimbursement of GATE examination Fee to the final year B. Tech students has been made available. A total of 127 students have availed this facility.

### Expenditure up to 31-03-2018:

Description of	Amount
activity	spent in Rs.
Procurement	49,46,867.00
Mentoring/Twinning	
System	5,41,036.00
Assistantship	2,09,549.00

Research &	3,71,468.00		
Development			
Travel expenses	2,92,795.00		
Office Expenses	70,326.00		
Salary to Staff	6,30,096.00 2,61,845.00		
Graduate	2,61,845.00		
Employability			
Improve Student			
Learning	10,68,558.00		
Selection of Asst.			
Professors	5,44,501.00		
Faculty and Staff			
Development	78,026.00		
Total			
	90,15,067.00		

## 18. INDUSTRY INSTITUTE INTERACTION

## 18.1 INDUSTRY INSTITUTE PARTNERSHIP (I.I.P. CELL)

The IIP Cell at NITK, Surathkal is engaged in building Institute Industry Collaboration for mutual benefit. The Cell is headed by a faculty member of Associate Professor or above grade supported by a Literate Assistant. The faculty in-charge reports to Dean (P & D)/Director. IIP Cell is mainly involved in handling of Testing and Consultancy works of all the departments and arranging endowment lectures.The Institute Revenue Generation through Testing and Consultancy has been improving substantially. revenue through **Testing** Consultancy works for the year 2017-18 is Rs. 1.30 (One Crores thirty Lakhs) IP Cell has been encouraging industries in the local region to make use of the testing and experimental facilities of the Institute.

## 18.2 INDUSTRY INSTITUTE COLLABORATION

## DEPARTMENT OF COMPUTER ENGINEERING

- 1. Dr. Santhi Thilagam was a Technical committee Member at International Conference on Technical Advancements in Computers and Communication on 10th & 11th April 2017, Tamil Nadu, India
- 2. Dr. Annappa was invited as a Visiting expert to Universite des Mascareignes Mauritius during 19th May to 18th June 2017.
- 3. Dr. Mohit P. Tahiliani Selected as a Mentor for Google Summer of Code (GSoC) from ns-3 organization (30th May 2017 to 21st Aug 2017)
- 4. Dr. K. Chandrasekaran as CVO of NITK organized a one week "Vigilance Awareness Week" during 30th Oct to 4th Nov 2017 (Newsletter copy attached).

- 5. Dr. K. Chandrasekaran Delivered an invited talk/ tutorial in the International Conference KMO 2017 titled "Knowledge Management in the context of Pervasive and Mobile Computing".
- 6. Dr. Mohit P. Tahiliani Selected as a Mentor for Google Summer of Code (GSoC) from ns-3 organization (30th May 2017 to 21st Aug 2017)
- 7. Dr. Mohit P. Tahiliani Invited to participate in "Intel India Colloquium" at Bangalore 9th October 2017.
- 8. Dr. Mohit P. Tahiliani Delivered a talk on "Need for Speed: Minimize the Impact of Bufferbloat in Home Broadband Internet" at Lawrence Livermore National Laboratory 12th October 2017.
- 9. Dr. Mohit P. Tahiliani Selected as a Mentor at Google Campus Sunnyvale California from 13th – 15th October 2017. Funded by Google Summer of Code to participate in GSoC Mentor Summit

#### DEPARTMENT OF CHEMISTRY

NIIST – CSIR, Trivandrum and CUSAT, Kochi

### DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Texas Instruments India Ltd., DRDO, LRDE,ANRC, Boeing, Academic and Research., April 2017 to March 2018

## DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING

- 1. KIOCL-Mangalore Training session on their premises on their request of "Electrical Safety" By G S Punekar 2 Hrs
- 2. KIOCL Management Development training a session "Electrical Strategy" by G S Punekar

- at NITK Premises as part of MDP of management Sciences-NITK 1.5 Hrs x2= 3 Hrs
- 3. OMPL-MangaloreResearch collaboration from 2015-2017 leading to M.Tech-(Research) degree to an employee of OMPL.2015- 2017

## DEPARTMENT OF INFORMATION TECHNOLOGY

Siemens Research, Bangalore, Academic Research – Jun-Dec. 2017

## DEPARTMENT OF MECHANICAL ENGINEERING

- 1. Robert Bosch Bangalore, M Tech Project, 1 Year.
- 2. WABCO INDIA LTD, M Tech Project,1 Year.
- 3. Robert Bosch Bangalore, M Tech Project, 1 Year.
- 4. Rambal India Pvt. Limited, Project Collaborator, 3 years.
- 5. Ashok Leyland Limited, Project Collaborator, 3 years.
- 6. Aryatechnocrats, Project Collaborator, 3 years.
- 7. Aditya Auto, Dept. of Heavy Industry sponsored project on Electrical Vehicle, 3 years.
- 8. Applied Materials, Project Collaborator, 1 year.
- **9.** ONGC MRPL, Consultancy support, 3 years.

## DEPARTMENT OF METALLURGICAL & MATERIALS ENGINEERING

- INDIRA GANDHI CENTRE FOR ATOMICRESEARCH, KALPAKKAM
- INDIAN INSTITUTE OF SCIENCE, BANGALORE
- NATIONAL AERONAUTICS LTD., BANGALORE
- HINDUSTAN AERONAUTICS LTD., BANGALORE
- JINDAL SOUTH WEST, VIJAYANAGAR
- INTERNATIONAL FEDERATION OF HEAT TREATMENT AND SURFACE ENGINEERING (IFHTSE), UK

- KENNAMETAL LTD., BANGALORE
- THERMET SOLUTIONS (P) LTD., BANGALORE
- TATA INSTITUTEOF FUNDAMENTAL RESEARCH, HYDERABAD
- IIT HYDERABAD

Foundry & Forging Internship May To Division, Hindustan June 2017 Aeronautics Limited Bangalore Kerala Minerals & Internship May To Metals Limited, June 2017 Kollam, Kerala. **Autokast Limited** Internship May To June 2017 Kerala Steel & Industrial Internship May To June 2017 **Forgings** Limited(Sifl) Athani, Kerala. Visakhapatnam Internship May To June 2017 Steel Plant, Visakhapatnam Bhilai Steel Plant, Internship May To Bhilai, Chattisgarh June 2017 Saint Gobain India Pg Project July 2017 Pvt. Ltd., Chennai To April 2018

## 19.0 SIGNIFICANT ACHIEVEMENTS 19.1 Notable Achievements

## DEPARTMENT OF CIVIL ENGINEERING

### Achievements during 1st April 2017 to 31st March 2018 R. SHIVASHANKAR

- Reviewed papers for Intl. Journal Pavement Research and Technology, Elsevier; Journal of computational engg and physical modeling; Journal of Institution of Engineers (India); Southeast Asian Geotechnical Journal, Geomechanics and Engineering Journal (Techno-press), Indian geotechnical conference 2017. GeoShanghai 2018 international conference etc.
- Reviewed PhD theses from VTU, JNTUH, JNTUA, NITC etc.
- Nominated as Technical Committee (TC 107 on laterites and lateritic soils) member of the

- Intl. Society of Soil Mechanics and Geotechnical Engg. for 2018-2021
- Appointed member of assessment committee of National Transportation Planning and Research Centre (NATPAC) at Trivandrum

## **DEPARTMENT OF ELECTRONICS**& COMMUNICATION ENGINEERING

## Achievements during 1st April 2017 to 31st March 2018

Dr. Shyam Lal received outstanding reviewer award for the prestigious journal i.e. "Biomedical Signal Processing and Control" Elsevier Publisher. February 2018.

**IEEE Bangalore - Best Large student Branch Award** for the year 2017 presented to NITK - Surathkal in recognition of thier outstanding contribution to the Bangalore section in the year 2017.

Best paper award for the paper "A Novel Dual-Gate Nanotitled InGaAs **Transistor** Scale with modified Substrate Geometry" by Baldeo Sharan Sharma and M. S. Bhat, in the IEEE International Conference on **Innovations** Electronics, Signal Processing and Communication (ICIESC 2017), 6-7 April, 2017.

## DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING

## Achievements during 1st April 2017 to 31st March 2018

- Prof. K. Panduranga Vittal Chairman, Institute of Engineers, Mangalore Chapter, 2016-18.
- Prof. K. Panduranga Vittal Member, BOS, MCE, Hassan, 2016-17.
- Prof. K. Panduranga Vittal Academic Auditor for EEE Departments of NIE -Mysore, 2017.
- Prof. K. Panduranga Vittal Member of Standing Committee, formed under

- the chairmanship of Mrs. Sumam David, Prof. ECE to frame guidelines and monitor MHRD HEFA funding in NITK.
- Dr. Nagendrappa H. Received Best Research Paper Award in the IEEE-International Conference – ICSPACE 2017 held at Bangalore.
- E. Prasanthi and K. N. Shubhanga, "Modelling of Protection of Converter Systems against Faults in a DFIG-based WECS", Proceedings of International Conference on Innovations in Power and Advanced Computing Technologies, IPACT-2017 held at VIT University, Vellore,, INDIA, April 21st and 22nd 2017. This paper has won the best paper award.

## DEPARTMENT OF INFORMATION TECHNOLOGY

Prof. G. Ram Mohana Reddy: AMD Best Research Project Award for M.Tech Thesis on Affective Video Content Analysis Using CNN, June 2017.

Dr. Sowmya Kamath S - Recipient of Early Career Research Award from Department of Science and Technology (DST), Govt. of India in June 2017

Dr. Sowmya Kamath S - Participated in Innovation Exhibition 2018 and Interaction with Grassroots innovators at Rashtrapathi Bhawan on special invite (19th March, 2018)

Dr. Sowmya Kamath S - Innovative work titled "Predictive Analytics for Intelligent Healthcare Applications" was selected for participation in Innovation the Festival for Entrepreneurship 2018 (FINE 2018). organized The President's by Secretariat in association with Department of Science & Technology/National Innovation Foundation -India (March 19-21, 2018).

## DEPARTMENT OF MINING ENGINEERING

## Notable Achievements: Achievements

"National Design Award- 2017 in Mining Engineering' for Outstanding Contribution in the field of Engineering Design by National Design Research Forum (NDRF) of Institution of Engineers.

## DEPARTMENT OF METALLURGICAL & MATERIALS ENGINEERING

### **Students Achievements:**

- 1. Sudheer R. Best Poster Award for paper titled 'Heat Transfer Characteristics of Nanoparticle Dispersed Nitrate Salt-PCM Thermal Energy Storage Applications' at the International Conference on Sustainable Energy & Environmental Challenges 2018 held at IISc Bangalore during 31st Dec 2017 to 3rd Jan 2018.
- 2. T. Baskaran **Best Poster Award** Structural Ceramics Poster Presentation on Int. Conference on EH-TACAG'17 during December 2017 at Indian Ceramic Society, Pune
- Sangamesh Best Paper for the paper titled 'Ballistic Impact Study on Jute – Epoxy and Natural Rubber Sandwich Composites' in IMME'17 at NIT Trichy.
- Preitish Crimson D'Silva, Gurudath, Abhilash Agnihotri, Dhananjay, Anirudha C. S., Best Short Oral & Poster Presentation 1st Prize (Theme: Materials Science & Engineering), paper titled Failure Analysis of a Tongue Rail.

## Special talk from Institute/Industries/R&D

1. Dr. Sameer Guduru, Post Doctoral Researcher Engineer, SATT & LP3, CNRS, Aix-Marseille Univ., Marseille,

- France, Topic: Laser Applications in Micro, 30-05-2017.
- 2. Mr. Devdas Bhat P., Doctoral student in Unite Materiaux et Transformations Metallurgie Physique et Genie des Materiaux, Lille, France, Topic: Development of Magnesium Alloys for Biomedical Applications, 07-08-2017
- 3. Prof. Bikramjit Basu, Materials Research Centre, IISc., Bangalore, Topic: Additive Manufacturing of Implantable Biomaterials: A New Paradigm, 14-08-2017
- 4. Prof. B. S. Murthy, Professor & Head Dept. of Metallurgical & Materials Engg., Institute Professor, Girija & R. Muralidharan Institute Chair Professor, IIT, Madras, Topic: Excitement in Making and Probing Materials at Small Scale, 22-09-2017
- Dr. Sumanth Shankar, Director, LMCRC, Dept. of Mechanical Engineering, McMaster University, Topic: Advances in Net Shaped Casting & Solidification Research at McMaster University, 26-09-2017
- Prof. Brij Kumar Dhindaw, MGM Chair Professor, School of Minerals, Metallurgical & Materials Engineering, IIT, Bhubanewar, Topic: Recyclability of Aluminium Alloys, Twin Roll Casting and Nucleation Issues, 05-10-2017
- 7. Dr. R. Raghavan, Hindustan Zinc Ltd., Topic: Chemical Analysis in Non-Ferrous Extractive Metallurgy & Extraction of Zinc Lead Cadmium and Silver, 23-10-2017.
- 8. Mr. Ullal Pranav Nayak
  Alumnus of the Department
  (M.Sc. in Materials Science under
  'ERASMUSMUNDUSFAME' scheme in
  Univ. of Augsburg Germany &
  University of Averio (Portugal), Topic:
  Effect of Single Point Forming on the
  Microstructure and Mechanical

Properties of Aluminium and Steel, 24-10-2017.

- 9. Dr. Uday Chakkingal, Professor Indian Institute of Technology, Madras, Topic: Improvement in Biomaterial Properties of MG Alloy by Severe Plastic Deformation, 22-01-2018
- 10.Mr. Surya Pratap Singh, Sr. Process Engineer Mineral Processing Department Central R&D Lab, Hindustan Zinc Ltd., (Vedanta Resources PLC), Udaipur, Rajasthan, Topic: Recovery of metals from low quality ore at HZL, 16-02-2018
- 11.Mr. Karthik Karkera, Manager R&D at HILTI, Topic: An overview of manufacturing processes at HILTI, Surat, Gujarat, 07-03-20 18
- 12.Dr. M. P. Phaniraj, Brain Korea Asst. Professor, Dept. of Materials Science & Engineering, Seoul National University, Topic: Development of low carbon ultra high strength steel with nano-sized copper and carbide precipitates, 09-03-2018.
- 13.Dr. Samir Degan, President, NACE International, Houston, USA, Topic: NACE International & its mission across the globe to control corrosion issues 21-03-2018

### Faculty achievements:

- Dr. K.N. Prabhu receiving the Metallurgist of the Year Award from by Shri Chaudhary Birender Singh, Union Minister of Steel
- 2. Dr. Kumkum Banerjee receiving the award of "Distinguished Woman in Metallurgical Engineering" by Venus International Foundation, Chennai.

### SCHOOL OF MANAGEMENT

### Report on the Management

Development Programme on Talent Management and Succession Planning

Management Development (MDP) Talent Programme on Management and Succession Planning for Kudremukh Iron Ore Company Limited (KIOCL) was conducted by the School of Management, NITK Surathkal during  $11^{\rm th}$ 15<sup>th</sup>to December 2017. In today's competitive and fast changing environment, both Business & HR leaders consider talent management to be one among their topmost priorities. It has been wellrecognized that a robust talent strategy is required for organizations to achieve peak performance, be it for the present future. Hence, ensuring continuous flow of high quality talent has become part of the larger business agenda.

Hence the MDP was designed for the senior managers of KIOCL. 25 senior management personnel from General Manager and the Deputy and Assistant General Manager cadres participated in the programme. The programme was designed accommodate diverse topics ranging from Enhancing managerial success by leveraging alignment strategies, strategic analysis, disaster safety management, management, electrical engineering, remote health monitoring and control of systems, succession planning, leadership, talent management to integrating strategies with vision and mission of KIOCL. The MDP was conducted with the help of resource persons both within the Institute and from outside. The MDP was coordinated by Dr. Rashmi Uchil, Assistant Professor, School Management. The programme was conducted on a full day basis for 5 days.

### **Summer University Program 2018**

Indian Leg of International Summer University Program 2018 was organized by School of Management (SoM), National Institute of Technology Karnataka, Surathkal (NITK) in

collaboration with University of Applied Sciences Western Switzerland, School of Business and Engineering Vaud (HEIG-VD), Switzerland and Beijing Institute of Technology (BIT), China. The program was held during 9th February to 22nd February 2018Dr. S. Pavan Kumar from SoM, NITK and Prof Laurence Larghi from HEIG-VD, Switzerland were the coordinators for the event. Prof K. B. Kiran, Head, SoM had supervised the event and Prof. G. S. Dwarakish, Dean (Planning and Development), NITK was the chief guest for the function. Apart from 24 students from all the above three Universities Prof. Tianan Yang from BIT, China and Prof Zysman Eytan from HEIG-VD, Switzerland also took part in Summer University 2018.

DR. DHISHNA P RECEIVED THE VENUS INTERNATIONAL FOUNDATION AWARD OF "YOUNG WOMAN IN LANGUAGE STUDIES" for the contribution and achievement in the field of English Language 2017 organized by VIF, Centre for Women Empowerment at Chennai, Tamil Nadu India.

Dr. Suprabha K.R. received The Venus International Foundation award of "Young Woman in Management" for the contribution and achievement in the field of Finance 2018 organized by VIF, Centre for Women Empowerment at Chennai, Tamil Nadu India.

# DEPARTMENT OF INFORMATION TECHNOLOGY

## ACHIEVEMENTS DURING 1<sup>ST</sup> APRIL 2017 TO 31<sup>ST</sup> MARCH 2018

Prof. G. Ram Mohana Reddy: AMD Best Research Project Award for M.Tech Thesis on Affective Video Content Analysis Using CNN, June 2017.

Dr. Sowmya Kamath S - Recipient of Early Career Research Award from Department of Science and Technology (DST), Govt. of India in June 2017

Dr. Sowmya Kamath S - Participated in Innovation Exhibition 2018 and

Interaction with Grassroots innovators at Rashtrapathi Bhawan on special invite (19th March, 2018)

Dr. Sowmya Kamath S - Innovative work titled "Predictive Analytics for Intelligent Healthcare Applications" was selected for participation in the Festival for Innovation and Entrepreneurship 2018 (FINE 2018), organized by President's Secretariat in association with Department of Science Technology/National Innovation Foundation -India (March 19-21, 2018).

### Addition(s) to Building Infrastructure

## DEPARTMENT OF MECHANICAL ENGINEERING

4th, 5th And 6th Floors Have Been Completed And Occupied At The Existing Department Building.

## DEPARTMENT OF COMPUTER ENGINEERING

New building for the department is being constructed.

## Department of Physical Education & Sports

### **ACHIEVEMENTS:**

- Dasara Tournaments: Basketball (Men)
   District level Runners, TT (Men) –
   Runners-Up.
- 2. BSA Kumar Inter collegiate Basketball tournament conducted by yenepoya University Runner-Up.
- 3. All India Inter NIT Athletics, Weight Lifting, Power Lifting and Body building Championship Held at MNIT Jaipur: Won Team Championship In Body Building and Mr. Prathamesh of I MTech was declared as Mr.NIT for the year, 2015-16.
- 4. All India Inter NIT Sports held at SVNIT Surat, Badminton, (Men) Second Runner-Up, Tennis, Runner-Up.

- 5. All India Inter NIT Sporta held at NIT, Calicut, Basketball Men anf Women teams were Second Runner-Ups.
- 6. All India Inter NIT Sports held at NITK Surathkal during, 18th to 20th March, 2016 Institute Aquatics Men team won Team Championship, Aquatics Women team won team Championship and Hockey team won First place.
- 7. In "REVELS" All India Inter Engineering Collegiate Tournaments organized by MIT, Manipal: Volleyball Women teams were Runners-Up.
- 8. NITK Cup, 2015-16 Chess Tournament hels at NITK Surathkal: Institute Men & Women Team were Winners.

### 20. ASSOCIATED CENTRES 20.1. National Institute Of Technology Karnataka (STEP)

NITK is equipped with a Science & Technology Entrepreneurs' (STEP) in a separate earmarked zone [20 acres land] of the vast complex of NITK. The major goals of the NITK-STEP is to create a healthy startup technology ventures through Business Incubation, capitalize on intellectual base at the academia to develop competitive business units, to nurture and grow the spirit of Techno Entrepreneurship and Entrepreneurial promotion Thinking through appropriate training programs and capacity building, to reach out to the young, unemployed youth in the region and improve their employability by Technology-based imparting development programs etc. STEP was formed as an independent registered society in the year 1994 by the erstwhile KREC. It became functional in 1998 by setting up its administrative and entrepreneurs' block along with other required infrastructure.

NITK- STEP has incubated so far about 44 incubatees (physical incubation), of which a few have established multi crores sales turnover companies employing hundreds of knowledge workers. A few of the innovators

prompted have turned out to be outstanding ones bagging reputed, and international national awards. Robosoft Technologies Pvt. Ltd. a unit which emerged out of NITK-STEP in 2000. Other innovations include independent product developments cum testing units of M/s Omnesys Technologies (P) Ltd. Now part of Thomson Reuters managed by incubatees (development center heads) moved out in October 2013. This technology unit offering financial software products to capital market was shifted to Mangalore for largescale commercial operations. Remote control system for power tillers, and Mozziquit, mosquito trap, innovative import substitution product, Bacterial Colony Counter, developed by Expert Vision Labs (P) Ltd., are some of the products innovated and produced with the expertise from NITK-STEP. Thus the innovations which emerged out of NITK- STEP show a deep link with the local requirements and utilizing local talent.

Prof. G. Srinikethan, Dept. of Chemical Engg. NITK has taken over the charge as Director i/c. NITK-STEP on 29.01.2018. The Core Advisory Group of NITK-STEP was constituted from the Following members:

- 1. Prof. Suman David, Dept. of E&C Engg., NITK
- 2. Prof. N. Lakshman Nandagiri, Dept. of Applied Mechanics, NITK
- 3. Dr. Venkatesh Perumal, Dept. of E&E , Engg,, NITK
- 4. Dr. Ashwini Chaturvedi , Dept. of E&C Engg., NITK
- 5. Dr. Jeny, Rajan, Dept. of Computer Engg., NITK
- Dr.Hariprasad Dasari Dept. of Chemical Engg.,NITK The First meeting of the Core Advisory Group of NITK-STEP was held on 23.02.2018.

### Training Programmes :-

1. Training Program on "Talent Management and Career Progression to the Executives of KIOCL Ltd. was conducted from 11<sup>th</sup> to 15<sup>th</sup> December 2017.

2. NITK-STEP & Dept. of Electrical & Electronics Engg. of NITK jointly proposed to conduct one week self-financed short term course on "Power Converter design"

20.2 Centre For Continuing Education (C.C.E.)

### **Existing Entrepreneurs:**

- 1. Expert Vision Labs Pvt. Ltd.
- 2. Mindstack Technologies

- 3. Kambala Solutions Pvt. Ltd.
- 4. Technisys
- 5. Serpro Consultations
- 6. ZENDX Technologies Pvt. Ltd. (Startup company)

### Proposed:

- 1. Establishment of IPR Cell
- 2. Conduct of Certificate/Degree courses in association with NITK.

Sl.No.	Title of the Course	Name of the Coordinator	Duration	No. of Partic ipants	Type of the Programme
1	2	3	4	5	6
1	Workshop on 'Build & Fly Mini Quad Copter'	Dr. Pruthviraj U & Prof. K.V. Gangadharan	16-04-2017 (One day)	69	For faculty, Practicing Engineers, PG & UG students
2	Workshop on 'Open Source Network Experimentation (ONE-2017)	Dr. Mohit P. Tahiliani & Dr. B.R.Chandavarkar CSE Dept.	01-06-2017 to 03-06-2017	18	For UG, PG, Research Scholars & Faculty
3	PMGSY Pavements Module-I	Prof. A.U.Ravishankar Civil Engg. Dept.	22-05-2017 to 24-05-2017	25	For Engineers from various Divisions of Karnataka Government.
4	PMGSY Pavements Module-II	-do-	29-05-2017 to 30-05-2017	20	-do-
5	Repairs & maintenance of Buildings	Dr. B.B. Das Civil Engg. Dept.	19-06-2017 to 23-06-2017	29	For Engineers from various division of Karnataka Govt., sponsored by Engg. Staff College, KR.Sagara.
6	IoT and its Applications in Electrical Systems	Dr. A.Karthikeyan & Dr. P. Parthiban Asst. Professors E&E Department.	14-07-2017 to 15-07-2017	51	Faculty of Engineering & Diploma, Industrial Personals & students.
7	Water & Waste Water Treatment	Dr. Basavaraju Manu, Asst. Professor, Dept. of Civil Engg.	28-08-2017 to 01-09-2017	12	For Engineers from various division of Karnataka Govt., sponsored by Engg. Staff College, KR.Sagara.
8	Recent Trends in Highway Pavements & Design & Highway Geometrics	Dr. Suresha S.N. Asst. Professor Dept. of Civil Engg.	11-09-2017 to 15-09-2017	22	For Engineers from various division of Karnataka Govt., sponsored by Engg. Staff College, KR.Sagara.
9	Basics of Environmental Engineering	Prof. Hari Mahalingam & Dr. Vidya Shetty, Dept. of Chemical Engg.	20-03-2018 to 26-03-2018	21	Training program for MRPL Engineers
'	Total:				

### **QIP CENTRE ACTIVITY DETAILS**

### **FOR THE YEAR 2017-2018**

### I) QIP (Engineering) Scheme: Details of students on role during 2017-18:

Ph.D Program				Master's De	gree Program
Pre Ph.D	I year	II year	III year	I year	II year
(2017-18 batch) 12	(2017-18 batch) 07	(2016-17 batch) 06	2014-15 batch = 02 2015-16 batch = 00	(2017-18 batch) Nil	2015-16 batch = 02 2016-17 batch = 02

### II) QIP (poly) Scheme: Details of students on role during 2017-18:

	Ph.D P	Master's	Degree Program			
Pre Ph.D I year III year III year				I year	II year	
(2017-18 batch) 01	(2017-18 batch) Nil	(2016-17 batch) Nil	2014-15 batch = Nil 2015-16 batch = Nil	(2017-18 batch) 04	2015-16 batch = 01 2016-17 batch = 04	

## 20.3 Research & Development Centre For Clay Roofing Tiles, Bricks And Other Ceramic Products.

### 1 ACTIVITIES:

- Received many enquiries for renting the machinery for interlocking pavement and wall blocks. Attempts are on to sign MOU for the same.
- > Talks are underway to strike understanding with granite quarry owners to transfer technology of making masonry soil blocks with quarry dust.
- ➤ The M.O.U. with M/s Integrated Blocks & Bricks, Mangalore for "Utilization of the production facility of R & D Centre for the manufacture of various cement based / concrete building products" completed successfully.
- ➤ One Ph.D work on "Strength of concrete subjected to high temperature" which is a part of BRNS Project is completed successfully using the furnace available.

### Technology is available for transfer for the following products:

Sl. No.	Product Details	Technology Status
1.	Bricks	Ready
2.	Hollow Blocks	Ready
3.	Cavity Bricks	Ready
4.	Hollow Roof Block	Ready
5.	Roof Tiles	Ready
6.	Decorative Tiles	Ready
7.	Pavement Block	Ready
8.	Interlock Wall Block	Ready

### 3. Facilities at R & D Centre:

1. Muffle Furnace	16. Planetary Mixers
2. Pot Mill Racks	17. Hydraulic Press
3. Jaw Crusher	18. Mixing Tank with Scrap Blunger
4. Electronic Balance	19. Roto Pump
5. Moisture Meter	20. Pilot Level Kiln
6. Sieve Shaker	21. Hydraulically Operated Concrete Block
	Making machine with Triple Vibrator
7. Weighing Balance	22. Ram and Mould
8. Ball Mills	23. 10/7 CFT Concrete Mixer
9. Discharge Tank	24. Wheel Borrows
with Agitator	
10. Pilot Level Kiln	25. Hand Operated Concrete Block Making
	Machine With Moulds
11. Ferro Filter	26. Hydraulic Block Cutting Machine
12. Filter Press	27. Vibrating Earth Rammer
13. Diaphragm	28. Soil Block Interlock wall Block making
Pump	Machine
14. De-Airing Pug Mill	29. Screener
15. Granulator /	30. Pulveriser
Pulveriser	

### 4. Services Offered:

- 1. Technology development and transfer
- 2. Hands on training for entrepreneurs.
- 3. Providing processing facilities on rental basis to existing industrialists and new entrepreneurs.
- 4. Research and consultancy in establishing similar kind of facilities using different kinds of waste.
- 5. Undertake manufacture and supply of Bulk orders on custom designed corporate gifts, made from eco-friendly materials.
- 6. Manufacture & Sale of building products made from industrial wastes and conventional materials.

### 21.0 FINANCE AND ACCOUNTS

### The Financial Status (2017 - 2018):

Ministry of Human Resource Development, New Delhi.

### **Sanctioned Grant:**

Non – Recurring Expenditure: 12977(In Lakhs)

Recurring Expenditure : 9093(In Lakhs)

Expenditure Position for the last three years:

Year	Plan (Rs. In Lakhs)	Non Plan (In	Total	
		Lakhs)		
2014 - 15	5332.63	6097.72	11430.35	
2015 -16	5902.37	6716.61	12618.98	
2016 - 17	6100.00	8260.00	14360.00	
Total	17335.00	21074.33	38409.33	

### FINANCE AND ACCOUNTS DETAILS

BALANCE SHEET AS AT 31-03-2018					
			(AMOUNT - Rs.)		
PARTICULARS	SCH. NO.	CURRENT YEAR	PREVIOUS YEAR		
SOURCE OF FUNDS:					
CORPUS/CAPITAL FUND DESIGNATED/ EARMARKED/ ENDOWMENT	1	1482,04,729	30314,69,085		
FUNDS	2	26988,42,621	22359,61,254		
CURRENT LIABILITIES AND PROVISIONS	3	47501,12,006	7066,02,525		
TEQIP PROJECT - PHASE III	25	49,59,882	-		
TOTAL		76021,19,237	59740,32,863		
APPLICATION OF FUNDS :					
FIXED ASSETS	4				
Tangible Assets	4(A)+(D)	31902,32,964	22759,12,282		
Intangible Assets	4(c)	89,35,789	106,37,986		
Capital Works-In-Progress	4(B)	9556,22,215	11923,77,624		
INVESTMENTS FROM EARMARKED/	5	, ,	, ,		
ENDOWMENT FUNDS					
Long Term		24602,87,920	16874,29,504		
Short Term		-	-		
INVESTMENTS - OTHERS	6	-	-		
CURRENT ASSETS	7	2564,40,625	4750,63,279		
LOANS, ADVANCES & DEPOSITES	8	7256,39,843	3326,12,188		
TEQIP PROJECT - PHASE III	25	49,59,882	-		
TOTAL		76021,19,237	59740,32,863		
SIGNIFICANT ACCOUNTING POLICIES	23				
CONTINGENT LIABILITIES & NOTES ON ACCOUNTS	24				

INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31-03-2018					
PARTICULARS	SC.NO.	CURRENT YEAR	Rs.) PREVIOUS YEAR		
INCOME:	_	_	-		
ACADEMIC RECEIPTS	9	3484,35,610	3252,98,622		
GRANTS/SUBSIDIES	10	12764,00,072	11627,96,529		
INCOME FROM INVESTMENTS	11	281,20,806	218,80,706		
INTEREST EARNED	12	16,57,496	34,60,950		
OTHER INCOME	13	601,21,616	559,26,868		
OTHER RESEARCH PROJECTS		583,76,125	364,81,341		
PRIOR PERIOD INCOME	14	-			
TOTAL (A)		17731,11,725	16058,45,017		
EXPENDITURE:					
STAFF PAYMENTS & BENEFITS	15	49990,24,339	7210,53,577		
ACADEMIC EXPENSES	16	4046,64,312	3484,41,338		
ADMINISTRATIVE & GENERAL EXPENSES	17	2101,12,294	1407,96,456		
TRANSPORTATION EXPENSES	18	14,79,549	10,68,576		
REPAIRS & MAINTENACE	19	746,79,421	1431,23,363		
FINANCE COST	20				
DEPRECIATION	4	3183,66,208	2802,59,536		
OTHER EXPENSES	21	1250,74,683	1453,45,385		
PRIOR PERIOD EXPENSES	22	627,87,447	_		
TOTAL (B)		61961,88,253	17800,88,231		
BALANCE:					
EXCESS OF EXPENDITURE OVER INCOME	(A-B)	44230,76,528	1742,43,214		
SIGNIFICANT ACCOUNTING POLICIES CONTINGENT LIABILITIES & NOTES ON	23				
ACCOUNTS	24				

		RECEIPTS &	& PAYMENTS FOR	THE YEAR ENDED 31-03-2018	3		
RECEIPTS		Current Year	Previous Year	PAYMENTS		Current Year	Previous Year
Opening Balances:				Expenses:			
(a) Cash in hand		885	1,26,570	(a) Establishment Expenses	11588,20,547		6526,27,593
(b) Bank Balances:				(b) Administrative Expenses	6780,23,308	18368,43,855	6030,28,768
(i) In current accounts		642,61,157	1386,40,850				
(ii) Savings acconts		177,55,054	378,54,206	Payments Against Earmarked/Er	ndowment Funds	815,71,630	4273,75,034
Grants Received:				Payments Against Sponsored Pr	rojects/Schmes	1744,61,918	941,51,988
(a) From Govt. of India							
Plan Grant - General	12977,00,000			Investments Made		11783,74,898	14908,46,099
Non-Plan Grant	9093,00,000	22070,00,000	14140,00,000	Out of Earmarked/Endowment	Fund		
(b) From State Government		-	-	Out of Own Fund			
Academic Receipts		4059,38,815	4031,02,372	Expenditure on Fixed Assets &	Expenditure on Fixed Assets &		8070,16,680
*		, ,	, ,	Capital Work - in - progress:		10427,39,367	, ,
Receipts Against Earmarked/End	dowment Funds	5407,13,640	6627,14,474				
				Deposits & Advances		16357,22,257	8347,67,573
Receipts Against Sponsored Pro	jects/Schmes/Plan	6772,38,346	2133,67,329				
				Payments made against		19632,96,124	21434,64,796
Income on Investments.		214,17,820	250,44,742	Funds for various projects:			
Interest Receved:		65,39,656	32,00,683	Any Other Payments :		10301,59,783	10847,57,535
Deposits & Advances		16387,31,272	13678,83,307	Closing Balances:			
				(a) Cash in hand		1,829	885
Investments Encashed/matured		7478,98,827	9058,31,459	(b) Bank Balances:			
				(i) In current accounts		69,28,016	642,61,157
Any other receipts:		27511,22,933	30482,87,171	(ii) Savings acconts		1285,18,729	177,55,054
TOTAL		90786,18,407	82200,53,162	TOTAL		90786,18,407	82200,53,163