# National Institute of Technology Karnataka, Surathkal

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# NITK NEWSLETTER



Vol: 5 July - December 2019 Issue No: 2





# **Message from the Director**



I am proud to forward this second issue of the fifth volume of *Waves*, the biannual institute newsletter. The reporting period pertaining to this issue marks an important milestone in the history of the institute: the advent of the Diamond Jubilee year. With the inaugural of the year-long celebrations, the Institute witnessed a surge in academic activities – a host of conferences, workshops, student and alumni activities and to top it all, the flagship Diamond Jubilee Convocation, blessed by the presence of the Hon'ble Vice President of India, Shri M. Venkaiah Naidu. Along with academics, an array of cultural, sports and technical festivities gave the campus a celebratory disposition throughout this period. Hon'ble Minister of Education, Shri Ramesh Pokhriyal 'Nishank' inaugurated the Central Research Facility (CRF) recently and his distinguished presence on that day immensely boosted our collective morale. With all these activities, we consistently and tirelessly communicate a trust among all sections of our stakeholders – students, staff, the public in general and the government – that we are here to serve with a definite purpose and vision; that we shall leave no stone unturned towards achieving excellence in technical education, research and innovation.

I am hopeful that this issue of the newsletter reinforces such a trust among our readers and stake holders. With support from the Ministry and other bodies, we are poised to take off to newer heights of academic distinction. I am sure that the pages inside provide the readers glimpses of our continuous academic endeavour and that they welcome this issue with open arms.

K. Umamaheshwar Rao

## **Message from the Deputy Director**



It gives me immense pleasure to write this message for our biannual magazine, *Waves* during this august occasion of the diamond jubilee celebrations. Sixty years is an important and significant landmark in the history of an academic institution. Sixty years of existence of an institution is an important milestone in its history and a time to pause, ponder, and take stock of past achievements and prepare oneself to meet new challenges and opportunities ahead. In that view, this whole year was bubbled with a plethora of academic, research, cultural, and social events. This magazine not only brings out the snapshot of those memories like 'waves' in the sea but also provides a glimpse of achievements by the faculty and students – various sponsored projects bagged by our faculty; alumni meets, placement and internship statistics; faculty who joined our family to flourish in their career and colleagues who retired from service after serving our Institute fruitfully and many more.

During this Diamond Jubilee year, the institute rightly takes pride in its achievements and is now poised to make the grade in the world. The challenges no doubt are huge and compelling. However, we focus in realistic directions with firm steps to march towards excellence.

#### Ananthanarayana V.S.

## **Prefatory Note**



The current issue of *Waves* is a compilation of the Institute activities during July-December 2019. The said period has been important to us as we embarked upon a new commitment with new responsibilities – that of a mature institute of sixty years of age reaffirming its own obligation to serve the country in the enhancement of technical education and research. Whereas for an individual, sixty years is time enough to think of retirement, an institute on the other hand, should grow further with the strength of the accumulated collective wisdom and a rejuvenated vigour. This fact is ascertained in the point that forty-one new faculty members joined us at entry level in various academic departments during this reporting period. Reason enough to believe that we are sufficiently reinvigorated!

The readers may bear in mind that the activities compiled here are certainly not exhaustive – for it is impossible to report and document each and every activity that may be deemed 'important', for more than one reason: the compulsions of identifying what is 'important' in the short run or a clash of perspectives as to what is 'important' for us as institute or simply because we missed out on a piece of news, etc. It is also possible that a beautiful lecture effectively delivered, for example, may ignite a larger number of minds than a whole conference may! Nevertheless, it is imperative that we identify in our capacity the individual and collective efforts of knowledge production and report it to our stakeholders. I hope this issue is a small exercise in that direction. I also hope the information compiled here is useful both as information per se and as a collective motivating spirit to scale the next level. I am thankful to all teaching and non-teaching staff for their cooperation in bringing out this issue.

Shashikantha Koudur Coordinator – Waves

# **Editorial Team**

#### Shashikantha Koudur

(Professor, School of Management)

Coordinator

Ananthanarayana V.S.

**Deputy Director** 

A. Nityananda Shetty

Dean (Academic)

M.S. Bhat

Dean (Faculty Welfare)

Subhash C. Yaragal

Dean (Planning & Development)

Jagannath Nayak

Dean (Students Welfare)

Panduranga Vittal K.

Dean (Alumni Affairs & Institutional Relation.)

U. Shripathi Acharya

Dean (Research and Consultancy)

Vijay H. Desai

Chairman, Career Development Centre

**Pritam Bansod** 

Assistant Registrar (TEQIP & AA)

Co-Coordinator

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# **Administrative Appointments**



We congratulate **Prof. A. Nityananda Shetty,** Department of Chemistry, on taking charge as Dean (Academic) with effect from 1 October 2019.

We congratulate **Prof. Shyam S. Kamath,** on taking charge as HOD, Department of Mathematical and Computational Sciences, with effect from 16 August 2019.





We congratulate **Dr. Biju R. Mohan,** on taking charge as HOD, Department of Information Technology, with effect from 19 August 2019.

We congratulate **Dr. Prasanna B.D.,** on taking charge as HOD, Department of Chemical Engineering, with effect from 4 September 2019.





We thank **Prof. M.B. Saidutta,** Department of Chemical Engineering, for having served as Dean (Academic). His service is appreciated and placed on records.

	Other Administrative Positions				
Sl. No.	Name	Position Occupied	With effect from		
1	Dr. Ramesh Kini M.	Chairman, Central Computer Centre (CCC)	02 August 2019		
2	Prof. Shyam S. Kamath	Faculty In-charge (Internal Telephone exchange, BSNL Centre)	20 August 2019		
3	Prof. S.M. Murigendrappa	Coordinator for Diamond Jubilee of NITK - Surathkal for the year 2019-20	23 August 2019		
4	Prof. Narendranath S.	Chairman – Institute Grievance Redressal Committee.	30 August 2019		
5	Prof. B. Venkatesa Perumal	Professor In-charge, NITK STEP	30 August 2019		
6	Dr. Bibhuti Bhusan Das	Local Coordinator for Global Initiative of Academic Networks (GIAN) at NITK Surathkal	03 September 2019		
7	Prof. M. S. Bhat	Professor In-charge (Analytics, Accreditation & Ranking System)	12 September 2019		
8	Dr. Arun Kumar Thalla	Coordinator for Centre for Sustainable Development	23 September 2019		
9	Mr. Mohamod Firoz Khaza, Executive Engineer (Electrical)	Resident Engineer (i/c)	30 September 2019		
10	Dr. Subray R. Hegde	Faculty In-charge, Testing and Consultancy Works, Industry- Institute Partnership (IIP) Cell	11 November 2019		
11	Dr. G.N. Kumar	Principal Coordinator for the Dakshina Kannada Bioenergy Research, Information and Demonstration Centre (BRIDC)	13 November 2019		

# We welcome the newly joined faculty during 2019 under the recruitment of 4-tier Flexible Faculty Structure (July 2019 to December 2019)

Sl. No.	Name of the Faculty	Designation	Department	Date of Joining
1	Dr. (Mrs.) ANUPAMA SURENJAN	ASSISTANT PROFESSOR GRADE - II	CIVIL ENGINEERING	16-09-2019 AN
2	Dr. MRUTHYUNJAYA SWAMY K. B.	ASSISTANT PROFESSOR GRADE - II	MECHANICAL ENGINEERING	17-09-2019 AN
3	Dr. J. VIJAYA VENGADESH KUMAR	ASSISTANT PROFESSOR GRADE - II	CIVIL ENGINEERING	19-09-2019 AN
4	Dr. ARUN DOMINIC D.	ASSISTANT PROFESSOR GRADE - II	E & E ENGINEERING	20-09-2019 FN
5	Dr. MANDEEP SINGH	ASSISTANT PROFESSOR GRADE - II	E & C ENGINEERING	20-09-2019 FN
6	Dr. PRAMOD K.	ASSISTANT PROFESSOR GRADE - II	MECHANICAL ENGINEERING	20-09-2019 FN
7	Dr. (Mrs.) PADMAVATHI L.	ASSISTANT PROFESSOR GRADE - II	E & E ENGINEERING	23-09-2019 FN
8	Dr. VIJAYENDRA S. SHETTI	ASSISTANT PROFESSOR GRADE - I	CHEMISTRY	25-09-2019 FN
9	Dr. SREENATH V.	ASSISTANT PROFESSOR GRADE - II	PHYSICS	25-09-2019 FN
10	Dr. RANJEET KUMAR SAHU	ASSISTANT PROFESSOR GRADE - II	MECHANICAL ENGINEERING	26-09-2019 FN
11	Dr. ARUN KUMAR SHETTIGAR	ASSISTANT PROFESSOR GRADE - II	MECHANICAL ENGINEERING	26-09-2019 FN
12	Dr. SANDI KUMAR REDDY	ASSISTANT PROFESSOR GRADE - I	MINING ENGINEERING	26-09-2019 FN
13	Dr. SREEKUMAR M.	ASSISTANT PROFESSOR GRADE - II	CIVIL ENGINEERING	26-09-2019 FN

14	Dr. VIGNESH KUMAR V.	ASSISTANT PROFESSOR GRADE - II	E & E ENGINEERING	26-09-2019 FN
15	Dr. NIKHIL K. S.	ASSISTANT PROFESSOR GRADE - II	E & C ENGINEERING	26-09-2019 AN
16	Dr. VAISHAKH NAIR	ASSISTANT PROFESSOR GRADE - II	CHEMICAL ENGINEERING	27-09-2019 FN
17	Dr. (Mrs.) SHWETHA HASSAN RANGASWAMY	ASSISTANT PROFESSOR GRADE - II	WATER RESOURCES AND OCEAN ENGINEERING	27-09-2019 FN
18	Dr. RAVI RAUSHAN	ASSISTANT PROFESSOR GRADE - II	E & E ENGINEERING	27-09-2019 FN
19	Dr. VINOTH S.	ASSISTANT PROFESSOR GRADE - II	CIVIL ENGINEERING	30-09-2019 FN
20	Dr. FALGUNI ROY	ASSISTANT PROFESSOR GRADE - II	MATHEMATICAL AND COMPUTATIONAL SCIENCES	30-09-2019 FN
21	Dr. MANEESH KUMAR PODDAR	ASSISTANT PROFESSOR GRADE - II	CHEMICAL ENGINEERING	21-10-2019 FN
22	Dr. MITHUN MOHAN	ASSISTANT PROFESSOR GRADE - II	CIVIL ENGINEERING	28-10-2019 FN
23	Dr. ROFIN T. M.	ASSISTANT PROFESSOR GRADE - II	SCHOOL OF MANAGEMENT	29-10-2019 FN
24	Dr. DHARAVATH KISHAN	ASSISTANT PROFESSOR GRADE - II	E & E ENGINEERING	06-11-2019 FN
25	Dr. SREEVALSA KOLATHAYAR	ASSISTANT PROFESSOR GRADE - I	CIVIL ENGINEERING	14-11-2019 FN
26	Dr. (Mrs.) LAKSHMI VELLANKI	ASSISTANT PROFESSOR GRADE - I	CHEMISTRY	28-11-2019 FN

27	Dr. BISWAJIT BHOWMIK	ASSISTANT PROFESSOR GRADE - II	COMPUTER SCIENCE & ENGG.	02-12-2019 FN
28	Dr. MD WASEEM AHMAD	ASSISTANT PROFESSOR GRADE - II	E & E ENGINEERING	04-12-2019 FN
29	Dr. PRAJOF P.	ASSISTANT PROFESSOR GRADE - II	E & E ENGINEERING	04-12-2019 FN
30	Dr. SOURAV KANTI ADDYA	ASSISTANT PROFESSOR GRADE - II	COMPUTER SCIENCE & ENGINEERING	05-12-2019 FN
31	Dr. JOTHI RAMALINGAM	ASSISTANT PROFESSOR GRADE - I	MATHEMATICAL AND COMPUTATIONAL SCIENCES	10-12-2019 FN
32	Dr. A. S. S. BALAN	ASSISTANT PROFESSOR GRADE - II	MECHANICAL ENGINEERING	10-12-2019 FN
33	Dr. P. S. SUVIN	ASSISTANT PROFESSOR GRADE - II	MECHANICAL ENGINEERING	16-12-2019 FN
34	Dr. SUSHIL KUMAR PANDEY	ASSISTANT PROFESSOR GRADE - II	E & C ENGINEERING	17-12-2019 FN
35	Dr. PAVAN G. S.	ASSISTANT PROFESSOR GRADE - II	CIVIL ENGINEERING	18-12-2019 FN
36	Dr. AJAY PRATAP	ASSISTANT PROFESSOR GRADE - II	COMPUTER SCIENCE & ENGINEERING.	19-12-2019 FN
37	Dr. SHASHIDHARA MECHA KOTIAN	ASSISTANT PROFESSOR GRADE - I	E & E ENGINEERING	19-12-2019 FN
38	Dr. B. DASTAGIRI REDDY	ASSISTANT PROFESSOR GRADE - II	E & E ENGINEERING	19-12-2019 FN

39	Dr. SELVAKUMAR MURUGESAN	ASSISTANT PROFESSOR GRADE - II	METALLURGICAL & MATERIALS ENGINEERING	23-12-2019 FN
40	Dr. SRIDHAR G.	ASSISTANT PROFESSOR GRADE - II	CIVIL ENGINEERING	30-12-2019 FN
41	Dr. (Mrs.) KHYATI VERMA	ASSISTANT PROFESSOR GRADE - II	MECHANICAL ENGINEERING	30-12-2019 FN

# Admission Matrix for the Academic year 2019-20

Sl. No.	Programme	Admissions 2019-20	Male	Female
1	B.Tech	958	790	168
2	M.Tech	618	445	173
3	M.Tech (Research)	27	20	7
4	MCA	50	37	13
5	MBA	28	16	12
6	MSc (Physics)	24	17	7
7	MSc (Chemistry)	24	10	14
8	PhD	186	134	52
Total		1915	1469	446

## **Inauguration of the Diamond Jubilee Celebrations**

Prof. N.R. Shetty, Chancellor of the Central University of Karnataka inaugurated the Diamond Jubilee Celebrations on the Founder's Day of the Institute, on 6 August 2019.

Inaugurating the celebrations, Prof. Shetty said that the entire world is changing due to innovations in the field of technology. Due to this, conventional jobs are disappearing and millions of new creative jobs embedded with skills are being created. The transformative changes are being fuelled by exponential technologies namely artificial intelligence, block chain, internet of things, cyber security and robotic process automation, he said. Chairperson of the BOG Prof. Balaveera Reddy, Director Prof. K. Umamaheshwar Rao, and Deputy Director Prof. Ananthanarayana V.S. were present. Former principals (of KREC – as the Institute was earlier called) and former directors of the institute were felicitated on the occasion. Prof. Lakshman Nandagiri coordinated the event.



Prof. N.R. Shetty inaugurated the year-long Diamond Jubilee celebrations

#### **Glorious Journey of KREC to NITK**

As part of inaugural ceremony of NITK's Diamond Jubilee celebrations, an exhibition hall, *Glorious Journey*, with more than six hundred rare photographic collections of the institute, was inaugurated by Prof. N.R. Shetty. He was accompanied by the chairperson Prof. K. Balaveera Reddy, Director Prof. K. Umamaheshwar Rao, former directors and principals and other distinguished guests and alumni. Prof. Arun M. Isloor coordinated this event and exhibition with his team – Dr. Pavan Kumar, Dr. Sowmya Kamath and Mr. Iranna Shettar.



Inauguration of the exhibition hall, Glorious Journey

#### **Distinguished Alumni Felicitation Programme**

Given the importance we attach to the alumni, it was the collective desire of Team-NITK to invite distinguished alumni as Institute guests for the inaugural of the Diamond Jubilee Celebrations on 6 August 2019. The first alumni meet was specially scheduled to felicitate distinguished alumni who graduated during 1965 to 1979. Alumni serving Industry / Research Organisations / Government Services across India were identified for felicitation and for conferring the *Distinguished Alumnus/Alumna Award* on the occasion of the Diamond Jubilee inaugural. The event started with welcome address by Prof. K.P. Vittal, Dean (AA & IR). Prof. K. Umamaheshwar Rao, Director, addressed the gathering. Prof. K. Balaveera Reddy, Chairman, BOG, delivered the presidential address. Thirty-one alumni serving Industry / Research Organisations were invited, felicitated and conferred the *Distinguished Alumnus/Alumna Award*.



Distinguished alumni felicitated on 60th Foundation day

### 17th Annual Convocation

The 17<sup>th</sup> Annual Convocation was celebrated with pomp and gaiety on Saturday, 2 November 2020. A total of 1,545 candidates were awarded degrees. 1,301 candidates received the degree in person.

Hon'ble Vice President of India, Shri M. Venkaiah Naidu, gave away the medals and awards. In his convocation address, the vice president said that transforming educated manpower into a skilled workforce is the need of the hour. He urged the private sector to create a corpus fund under CSR activities to fund research projects that have societal benefits. Shri Naidu urged the youth to practise Yoga for their physical well-being. He further stressed on the need to promote and protect one's mother tongue without degrading other languages. Minister in-charge of D.K. district, Shri Kota Shrinivas Poojari was present. The first part of the ceremony was held in the forenoon session.

The second part of the convocation was held at 4.30 PM, when the degrees were awarded to the students. 795 students were awarded the B.Tech degree; 436 students, M.Tech degree; 25 students, M.Tech (Research) degree; 90 students, MCA; 32 students, MBA; 51 students, MSc and 116 students, PhD.



Shri M. Venkaiah Naidu addresses the graduands Prof. K. Balaveera Reddy presents a memento to the Vice President Shri M. Venkaiah Naidu.

District in-charge Minister, Shri Kota Shrinivas Poojari looks on.

# Conferences/GIAN Programmes/Workshops/ Expert Lectures Organized

#### **Department of Chemical Engineering:**

- 1. National Symposium on 'Environmental Pollution Prevention and Control: Future Perspective' (EPPC: FP-2019) was held during 23 to 25 August 2019. Dr. Vinaya Hegde, Chancellor, Nitte University, was the chief guest of the event.
- 2. Shree Bhimasen Vadavi, Head of Engineering Division, Sartorius Stedim delivered an expert lecture on 'Single Use Technology in Biopharma Industries' on 4 October 2020.
- 3. Prof. Vinod Janardhanan, from the Indian Institute of Technology, Hyderabad (IITH) delivered an expert lecture on 'Conversion and Utilization of CO2 for Sustainable Development' on 22 November 2019.

#### **Department of Civil Engineering**



- 1. Dr. B.B. Das organised a Global Initiative for Academic Networks (GIAN) Course on 'Design of Concrete Structures Reinforced with Fiber Reinforced Polymer (FRP) Bars' during 29 July 2 August 2019. The Course Instructor was Dr. Anil Patnaik, Professor of Structural Engineering and Associate Department Chair (Graduate Programs), Dept. of Civil Engineering, The University of Akron, Akron, USA.
- 2. Dr. B.B. Das and Dr. A. Azhoni organised a Continuing Education Programme on 'Quality Management Systems in Civil Engineering', for Karnataka Public Works and Irrigation Department Engineers sponsored by Engineering Staff College, Krishnarajasagara, during 23 27 September 2019.
- 3. Dr. Radhakrishna G. Pillai, Associate Professor, Indian Institute of Technology Madras, Chennai, delivered an expert lecture on 'Challenges in Civil Engineering, Career Prospects & Higher Studies', on 09 October 2019.
- 4. Dr. B.B. Das and Dr T. Palanisamy organized a TEQIP-III sponsored Faculty Development Programme (FDP) on 'Fiber Reinforced Concrete and its Applications' during 18 22 November 2019. The chief guest was Prof. M.S. Shetty.

#### **Department of Computer Science and Engineering**

- 1. A five-day workshop on 'Information Security' was held during 14 18 October 2019. Dr. Alwyn Roshan Pais and Dr. P. Santhi Thilagam coordinated the workshop. Dr. Alwyn Roshan Pais, Dr. P. Santhi Thilagam, Dr. B.R. Chandavarkar and Mr. Mahendra Pratap Singh were the resource persons. The target audience were faculty, PG and PhD scholars, industry professionals and consultants.
- 2. A five-day workshop on 'Internet of Things (IoT)' was held during 4 to 8 November 2019. Dr. Alwyn Roshan Pais and Dr. P. Santhi Thilagam coordinated the event. Dr. Alwyn Roshan Pais, Dr. P. Santhi Thilagam, Dr. B.R. Chandavarkar and Mr. Mahendra Pratap Singh were the resource persons. The target audience were faculty, PG and PhD scholars, industry professionals and consultants.
- 3. A five-day workshop on 'Simulation of Underwater Communications (SUC'19)' was held during 9 to 13 December 2019. Dr. B.R. Chandavarkar coordinated the event. Dr. U. Sripathi Acharya (E&C, NITK), Dr. Muralidhar Kulkarni (E&C, NITK), Dr. Shiraz Shahabudeen (Subnero, Singapore), Prasad Anjangi (Subnero, Singapore), Dr. Prabhu K. (E&C, NITK), Dr. Pruthviraj U. (WR&OE, NITK) and Dr. B.R. Chandavarkar (CSE, NITK) were resource persons. This workshop was open to all UG and PG students, research scholars, faculty and industry personnel.
- 4. A five-day workshop on 'Cyber Security' was held during 16 to 20 December 2019. Dr. Alwyn Roshan Pais and Dr. P. Santhi Thilagam coordinated the event. Dr. Alwyn Roshan Pais, Dr. P. Santhi Thilagam, Dr. B.R. Chandavarkar and Mr. Mahendra Pratap Singh were the resource persons of the event. The target audience were postgraduate students, research scholars, faculty members from academic institutes, industry professionals and consultants.

#### **Department of Electrical and Electronics Engineering**

1. Dr. P. Partiban and Dr. R. Kalpana coordinated the 1<sup>st</sup> International Conference on 'Power Electronics Applications and Technology in Present Energy Scenario' (PETPES 2019) during 29 – 31 August 2019.



- 2. Prof. B.G. Fernandez of IIT Bombay, delivered an Expert Lecture on 'An Integrated Control Scheme for the PV Systems' on 28 September 2019.
- 3. Dr. Bhavanishankar T., CPRI, Bangalore, delivered an Expert Lecture on 'Capacitors for Power Systems Applications' on 28 September 2019.

#### **Department of Electronics and Communication Engineering**

1. Winter School on 'Applications of Machine Learning Techniques for Medical Image Analysis' in association with Baylor College of Medicine, Houston, as part of SPARC project and NITK Diamond Jubilee events was held during 02 to 13 December 2019. Dr. Mandava Pitchaiah (Associate Professor, Dept. of Neurology, Baylor College of Medicine, Houston, Texas) and Dr. Paul Litvak (Assistant Professor, Dept. of Neurology, Baylor College of Medicine, Houston, Texas) were the resource persons of the event.



2. Mr. Gajendra Singh (Director, STL Technologies, Bangalore) delivered an expert lecture on 'NAND Flash and Solid Storage Drives' on 1 October 2019.

#### **Department of Information Technology**

- 1. Dr. Bhawana Rudra, Dr. Anand Kumar, Prof. G. Ram Mohana Reddy coordinated a five-day, TEQIP-III sponsored workshop on 'Deep Learning for Big Data and Cyber Security Applications' during July 1-5, 2019.
- 2. Dr. Sowmya Kamath S. and Dr. Geetha V. coordinated a One-week National Workshop on 'High Performance Computing and Applications' during August 12-17, 2019.
- 3. Prof. G. Ram Mohana Reddy coordinated a One-day Seminar on 'Serverless Computing Applications' on November 27, 2019. Dr Piyush Harsh, Zurich University of Applied Sciences, Switzerland, was the resource person.

- 4. Prof. G. Ram Mohana Reddy, Dr. Kiran M, Dr. Bhawana Rudra and Dr. Anand Kumar coordinated a five-day, TEQIP-III sponsored workshop on 'Artificial Intelligence and Machine Learning Applications in Emerging Areas of Computer Science and Information Technology' during December 9-13, 2019.
- 5. Dr. Bhawana Rudra coordinated a five-day, AICTE Sponsored Workshop on 'Block Chain Technology' during December 16-20, 2019.

#### **Department of Mathematical and Computational Sciences**

- 1. A Short Term Course on 'High Performance Computing' was organised on September 13 and 14, 2019.
- 2. Prof. S. Ponnusamy, Department of Mathematics, IIT Madras, delivered an expert lecture, 'Classical Bohr's Inequality for Bounded Analytic Functions' on July 11, 2019.
- 3. Prof. PVSN Murthy, Department of Mathematics, IIT Kharagpur, delivered an expert lecture on 'Stability of a Horizontal Through-flow in a Brinkman Porous Layer' on July 26, 2019.
- 4. Prof. B.S. Panda, IIT Delhi, delivered an expert lecture on 'Grundy Coloring and Partial Grundy Coloring of Graphs' on December 16, 2019.

#### **Department of Metallurgical and Materials Engineering**

- Dr. Wayne Chen, Director of Research and Managing Director, Asia Pacific Operations Dynamic System Inc., USA, delivered a lecture on 'Advancement of Physical Simulation Technology in Materials Research with Gleeble Thermo-Mechanical Simulator', on 30 July 2019
- 2. A Workshop on 'Advanced Materials and Characterization Techniques (AMCT 2019)' was organized during 7 11 August 2019
- 3. Mr. Venkata Ramana, Head of Manufacturing, L&T Heavy Engineering, Surat, delivered a talk on 'Metallurgical Engineering Role in Nation Building: An Indian Perspective' on 27 September 2019.
- 4. Prof. Amol A. Gokhale, Professor, Department of Mechanical Engineering, IIT Bombay, delivered a talk under Prof. T.R. Lecture Series, on 'High Energy Rare Earth Permanent Magnets: The Indian Landscape', on 29 October 2019.
- 5. A National Seminar was organised on 'Frontiers in Materials' on 29 and 30 October 2019.
- 6. Dr. Dibyendu Chakravarty, Scientist-E, Center for Nanomaterials, International Advanced Research Centre for Powder Metallurgy and New Materials (ARCI), Hyderabad, delivered a talk on 'Spark Plasma Sintering: A Novel Powder Metallurgy Processing Tool for Niche Application' on 24 December 2019.

#### **Department of Mining Engineering**

- 1. Prof. D. Deb from IIT- Kharagpur delivered an expert lecture on 'Slope Stability Analysis in Jointed Rockmass' on 23 September 2019.
- 2. Prof. M. S. Venkat Ramayya, Former General Manager, Singareni Collieries Company Limited, Telangana, delivered expert lectures on 'Longwall Mining' on 23 and 24 September 2019.
- 3. Mr. Sundar Singh R., CTO, Vimson, Vasco da Gama, Goa, delivered an expert lecture on 'Application of Prospect Mining Studio' on 04 November 2019.

#### **Department of Physics**

1. Prof. Deshdeep Sahdev, Department of Physics, IIT Kanpur, delivered an expert lecture on 'Indigenous Instrumentation & Computational Packages for Cutting Edge Research in India' on 31 October 2019.

#### **Department of Water Resources and Ocean Engineering**

- 1. Dr. H. Ramesh coordinated a Summer School on 'Geospatial Technologies', during 11 31 July 2019.
- 2. Dr. H. Ramesh coordinated a Workshop on 'Coastal Reservoirs as a Sustainable Strategy for Water Security' under Scheme for Promotion of Academic and Research Collaboration (SPARC), during 22 24 July 2019.



Inaugural function of the Three-Day Workshop on 'Coastal Reservoirs as a Sustainable Strategy for Water Security'. Prof. T.G. Seetharam, Director, IIT Guwahati, was the Chief Guest; Prof. Muttucumaru Sivakumar and Prof. Yang Shu-Qing from University of Wollongong, Australia, were Guests of Honour; Prof. Ananthanarayana V.S., Deputy Director, NITK presided over the function. Prof. Amba Shetty, HOD and Dr. H. Ramesh, Coordinator, were present.

- 3. Dr. Rituparna Datta, Computer Research Scientist, University of South Alabama, USA, delivered an expert lecture on 'Evolutionary Multiobjective' on 9 and 10 August 2019
- 4. Dr. Subrahmanya K. coordinated a workshop on 'Hydrology and Hydrololic Modelling using MIKE (DHI) Software' on 16 September 2019. Ms. Jala Alora, DHI, India, was the resource person.

- 5. Dr. Amba Shetty coordinated a training programme on ARCGIS software by Mrs. Neha, M/s Geospatical Technologies India Ltd. during 18 to 20 September 2019
- 6. Dr. Pruthviraj U. & Dr. Kiran G. Shirlal coordinated a workshop on 'Physical & Numerical Modelling in Coastal and Ocean Engineering' during 4 to 10 November 2019.
- 7. Dr. Pruthviraj U. & Dr. Kiran G. Shirlal coordinated a symposium on 'Open Source Hydrodynamic programme for 'Numerical Modelling', on 13 November 2019.

#### **School of Management**

- 1. Shri. Mr. Anantpadmakar Ayyo, Trainer & Consultant delivered an expert lecture on 'Kaizen and 5 S Model' on 27 August 2019.
- 2. Mr. Praveen Kamath, General Manager & HR Head, Global Delivery & Enablement, Wipro Limited, delivered an expert lecture on 'HR Metrics' on 12 October 2019.

#### **Central Library**

As part of NITK Diamond Jubilee celebration, Central Library organised first ever international conference in the field of Library and Information Management, 'International Conference on Digital Technologies and Transformation in Academic Libraries [DigiTTAL-2019]' during December 26-28, 2019. All three days' sessions were video recorded and hosted on institute repository at http://210.212.194.26/nitk/index.html



**Inaugural of the Conference** 

Prof. (Dr.) M. Shantharam Shetty, Pro Chancellor, NITTE (Deemed to be University) was the Chief Guest of the Inaugural Ceremony. Prof. B.D. Kumbar, President, Indian Library Association, was the Chief Guest for the Valedictory Ceremony. Dr. Bhanu Neupane, Programme Manager, UNESCO, Paris and Dr. Noraziah Sharuddin, Universiti Technologi Malaysia, Malaysia, delivered Keynote addresses.

## **Important Guest Visits**

#### **Department of Chemical Engineering**

- 1. Prof. B.C. Meikap, IIT Kharagpur, visited the department on 30 August 2019 and 30 December 2019 for PhD Viva Voce as Indian Referee.
- 2. Dr. Ashwin Patwardhan, Professor, ICT, Mumbai, Dr. Preeti Aghalayam, Professor, IIT Madras, Mr. U.V Aithal, CGM, ONGC, Mangalore and Mr. N. Ramesh Bhat, GM, MCF, visited the department on 2 October 2019 as experts for External Evaluation.

#### **Department of Electronics and Communication Engineering**

- 1. Mr. Akshay Pattabhi visited the department and delivered a technical talk on 'A Brief Insight into the Physics and Applications of Ultrafast Magnetism: Towards Ultrafast Spintronics' on 4 September 2019.
- 2. Prof. Rajesh Hegde, IIT Kanpur, Dr. S.V. Sharma, Dy. Director, ISRO and Dr. Narasimha Bhat, Founder CEO, Manipaldotnet Pvt. Ltd were the members of the expert committee to conduct a Department level comprehensive external academic review on 28 September 2019.

#### **Department of Metallurgy and Materials Engineering**

- 1. Bikramjit Basu, Professor, Indian Institute of Science, Bangalore, visited as Chief Guest, for the Workshop on 'Advanced Materials and Characterization Techniques (AMCT 2019)', during 7 11 August 2019
- 2. Dr. Bharath B. Panigrahi, IIT Madras, Dr. Manjini Sambandam, JSW Steel Ltd., Bellary, Dr. Sambhu Bhadra, Head-Research, CEAT Ltd., Gujarat, visited the Department for External Peer Review on 14 October 2019.
- 3. Prof. B.C. Pai, CSIR Eminent Research Scientist and Former Director, CSIR-NIITST, Thiruvananthapuram, visited the Department as a Chief Guest for the national seminar on 'Frontiers in Materials' held on 29 October 2019.
- 4. Prof. V.S. Raja, IIT Bombay, Prof. Sreeram K. Kalpathy, IIT Madras, Dr. Sukumar Roy, BHEL Bengaluru, and Dr. Raghavendra Bhat, HAL, Bengaluru visited the Department as experts for the National Seminar on 'Frontiers in Materials' held on 29 October 2019.

#### **Department of Mining Engineering**

Prof. N.C. Karmakar, IIT-BHU; Prof. D. Deb, IIT- Khargpaur and Mr. N. Radha Krishna, D.G.M. (R&D), Singareni Collieries Company Limited, Telangana State, visited the Department for a peer review committee meeting on 23 September 2019.



Laboratory visit of the Peer Review Committee

### **Department of Physics**

Prof. Rajendra Singh, IIT Delhi; Dr. A.S. Prakash, CECERI, CSIR, Chennai and Dr. R. Venkataraghavan, HUL, Bangalore, visited the Department for an academic audit on 4 October 2019.

#### **Department of Water Resources and Ocean Engineering**

Name of visitor	Designation & Affiliation	Purpose of visit	Dates of visit
Dr. K. Ganesh Raj	RRSSC, Bangaluru	As Chief Guest for Summer school on 'Geospatial Technologies'	11 July 2019
Prof. T.G. Seetharam	Director, IIT Guwahati	Chief Guest for the Workshop on Coastal Reservoirs as a sustainable strategy for water security Under Scheme for Promotion of Academic and Research Collaboration (SPARC)	22 July 2019
Dr. Shamitha Kumar	Chairperson, Committee on Geospatial Capacity Building, Department of Science and Technology, Government of India	As Chief Guest for Summer school 'Geospatial Technologies' for Valedictory	31 July 2019

Dr. P.G. Diwakar	Director of Earth Observations Applications and Disaster Management Programme, ISRO Bengaluru	As Guest of honor for Summer school 'Geospatial Technologies' for Valedictory	31 July 2019
Dr. Nagesh Kumar	Professor, IISc., Bengaluru	Viva-voce exam and Interaction with faculty and students	20 August 2019
Ms. Jala Alora	Executive Officer, DHI, India	Workshop on Hydrology and Hydrololic modelling using MIKE (DHI) Software	16 September 2019
Prof. Motohiki Murai	Dept. of Environment and System Sciences, Yokhohoma National University, Tokiwadai, Hodogaya Yokohama, Japan	GIAN programme on 'Design of analysis of floating wind turbine'	3 to 7 September 2019
Mrs. Neha	Executive Officer, M/s Geo- spatical Technologies India Ltd	Training programme on ARCGIS Software	18 to 20 September 2019
Prof. M.C. Deo	Professor, IIT Bombay	Viva-voce exam and Interaction with faculty and students	10 October 2019
D. Nagesh Kumar	Professor, IISc., Bengaluru	For Academic Audit	11 October 2019
Dr. Hari Prasad	Professor, IIT Roorkee	For Academic Audit	11 October 2019
Dr. Jayakumar Saleem	Scientist, NIO Goa	For Academic Audit	11 October 2019
Dr. Suresh Kumar	Scientist, IIRS, Dehraduan	For Academic Audit	11 October 2019
Prof. Erinjery Joseph James	Pro Vice Chancellor, Karunya Deemed University, Coimbatore	Talk on 'Role of Ecosystems in integrated water resource management'	5 November 2019
Prof. Hans Bihs	Associate Professor, Marine Civil Engineering, NTNU, Trondhenim, Norway	Workshop on 'Physical & Numerical Modelling in Coastal and Ocean Engineering'	4 To 10 November 2019

Dr. Arun Kamath	Faculty, Marine Civil Engineering, NTNU, Trondhenim, Norway	Workshop on 'Physical & Numerical Modelling in Coastal and Ocean Engineering'	4 To 10 November 2019
Dr. Sannasiraj	Professor, Ocean Department, IIT Madras	Viva-voce exam and Interaction with faculty and students	4 December 2019
Dr. K. Jayaraman	Professor, IIT Madras	Viva-voce exam and also delivered a talk on 'Mechanical characterization of Aeracnut Husk fibre Husk composite panels using static and dynamic loading condition'	4 December 2019
Dr. Krish P Thiagarajan	Endowed Chair in Energy & Professor, Department of Mechanical Engineering, and University of Massachusetts Amherst, USA	Faculty for GIAN Programme from 'Environmental Loads Design Approach for Fixed and Floating Offshore Structures'	23 to 27 December 2019

# **Faculty Achievements**

#### **Department of Chemical Engineering**

- 1. Dr. Gangamma S. was selected for the 'International visitor leadership program' (U.S. Department of State's premier professional exchange program) from US embassy of India, on "Air quality and health-2019".
- 2. Kishor Kumar M.J., Jagannathan T. Kalathi, have applied for patent for their work 'Method and composition for fabricating a high-k dielectric material', Indian Patent (filed). Application Number: 201941047909 dated 23 November 2019.

#### **Department of Civil Engineering**

1. Dr. Sreevalsa Kolathayar has been selected as Editorial Board Member of *International Journal of Geosynthetics and Ground Engineering* published by Springer Nature for a term of two years.

- 2. Dr. Sreevalsa was nominated as Technical Committee Member of 'Earthquake Engineering and Soil Dynamics', and 'Engineering Geology & Site Characterization' Technical Committees of Geo-Institute, American Society of Civil Engineers (ASCE) for the term 2019-22.
- 3. Dr. B.B. Das was the Corresponding Editor of *Recent Developments in Sustainable Infrastructure Select Proceedings of ICRDSI 2019*, Springer Nature Singapore.
- 4. Dr. B.B. Das was the Keynote Speaker at Vellore Institute of Technology, Vellore at the International Conference on 'Recent Trends in Construction Materials and Structures' ICON 2019 (Pre-Conference Workshop), on 17 September 2019.

#### **Department of Computer Science and Engineering**

- Dr. P. Santhi Thilagam received Distinguished Alumna Award, National Institute of Technology Karnataka, Surathkal, in September 2019
- 2. Dr. Annappa B. delivered Keynote address on 'Latest Trends in Research Methodologies' and session chair for International conference on Technical Advancements in Computer Science & Engineering held on 6 December 2019.
- 3. Dr. Mohit P. Tahiliani was added as a member of the Steering Committee by NS-3 Consortium and served as an Organization Administrator for ns-3's Google Code-in (GCI) contest.
- 4. P. Santhi Thilagam, and Amit Praseed, have filed a patent application for their work 'System and Method for Detecting Asymmetric Application Layer DDoS Attacks using User Access Pattern Model'

#### **Department of Electrical and Electronics Engineering**

1. Santhosh K.G. Manikonda and Dattatraya N. Gaonkar, have filed a patent application for their work 'A Method for Islanding Detection Based on Image Classification with Ensemble Convolution Neural Networks' Application No (IPO): 201941036379, dated 10 September 2019

#### **Department of Electronics and Communication Engineering**

1. Dr. M.S. Bhat, IEEE Student Branch Counsellor, was awarded the 'Outstanding Large Students Branch Counsellor's Award 2019' by IEEE Bangalore Section.

#### **Department of Information Technology**

1. Prof. G. Ram Mohana Reddy delivered a Keynote Talk on 'Convolutional Networks and Its Applications', at Lakireddy Bali Reddy College of Engineering, Mylavaram, Vijayawada, A.P., on 16 November 2019.

#### **Department of Mathematical and Computational Sciences**

1. Prof. Santhosh George published a book (jointly with Ioannis K Argyros, Department of Mathematical Sciences, University of Cameron), titled *Mathematical Modeling for the Solution of Equations and Systems of Equations with Applications, Volume 3* in September 2019.

#### **Department of Metallurgy and Materials Engineering**

1. Dr. Shashi Bhushan Arya received Best Paper award for the technical paper 'Microbial Induced Corrosion Behaviour of Multilayer Nanocomposite Coatings for the Marine Applications' at CORCON 2019 during 23-26 September 2019 at Mumbai.

#### **Department of Mining Engineering**

1. Dr. K. Ram Chandar received 'Engineering Gold Medal' from the Mining, Geological and Metallurgical Institute of India (MGMI) for his outstanding contribution in Mining in November 2019.

#### **School of Management**

 Dr. Dhishna Pannikot delivered a keynote address on 'Advances in Research in Comparative Literature' in the Two-Day International Seminar on 'Language and Literature Studies' held during 17-18 December 2019, organised by Global Academic Research Institute at Galle Face Hotel, Colombo, Sri Lanka.

### **Students Achievements**

#### **Department of Chemical Engineering**

1. Raksha Rao, Keerthana Kamath, and Priyanka R. of VII sem. B.Tech were awarded Best Paper Award for their paper presentation during July 14-18, 2019 at 11<sup>th</sup> International Exergy, Energy, and Environment Symposium (IEEES-11) conducted by SRM University, Chennai.

#### **Department of Civil Engineering**

- Ms. Snehal K., Ph.D research scholar, won the best paper award for the paper titled 'Application of Andreassen and Modified-Andreassen Model on Cementitious Mixture Design - A Review', in the International Conference on Recent Development in Sustainable Infrastructure - Materials and Management, (ICRDSI 2019), held at KIIT, Odisha, during 11 - 13 July, 2019.
- 2. Mr. Sharan Kumar Goudar, Ph.D research scholar, won the best paper award for the paper titled 'A Review on Mechanical and Microstructure Properties of Reinforced Concrete Exposed to High

- Temperatures', in the International Conference on Recent Development in Sustainable Infrastructure Materials and Management, (ICRDSI 2019), held at KIIT, Odisha, during 11 13 July, 2019.
- 3. Mr. Prasanna K.M., Ph.D research scholar, won the best paper award for the paper titled 'Characterization of Mechanical and Microstructural Properties of FA and GGBS Based Geopolymer Mortar Cured in Ambient Condition' in the International Conference on Recent Development in Sustainable Infrastructure Materials and Management (ICRDSI 2019), held at KIIT, Odisha, during 11 13 July, 2019.
- 4. Mr. Akash Agrawalla, an M.Tech graduate, won the best paper award for the paper titled 'Automation of Curing using Prefabricated Sensors" in the International Conference on Trending Moments and Steer Forces' (TMSF-2019), held at DBCE, Goa, during 31 October 1 November, 2019.
- 5. Ms. Snehal K., Ph.D. research scholar, won the Certificate of Special Merit at the 16th NCB International Seminar on Cement, Concrete and Building Materials, during 03 06 December 2019, New Delhi, India for the paper entitled 'Performance of Optimised Binary and Ternary Blended Composites Integrated with Fly Ash, Ultrafine Fly Ash and Nano-Silica', Organised by National Council for Cement and Building Materials (NCCBM), New Delhi.

#### **Department of Computer Science and Engineering**

- 1. Arnold Joseph of IV Sem. M.Tech was awarded the First prize in Divisional & District Level Sports Meet during 21 to 22 September 2019 at Mukka.
- 2. Arnold Joseph of IV Sem. M.Tech was awarded First prize in CM Cup, Mysuru Dasara State-level Sports Meet during 1 to 4 October 2019 at Chamundi Vihar Stadium, Mysore.
- 3. New packet scheduler developed by students' team (Under the guidance of Dr. Mohit P. Tahiliani) got merged into the mainline of the Linux kernel.

#### **Department of Electrical and Electronics Engineering**

- 1. Megh Manoj Bhalerao (16EE234), underwent his Internship at the University of Pennsylvania, USA, during 23 May 2019 to 22 November 2019
- 2. Vrushabh Bhangod (16EE209), underwent his Internship at the University of Illinois, Urbana Champaign, Illinois during 25 May 2019 to 4 January 2020
- 3. Malapaka Adarsh (16EE129) underwent his Internship at the Johns Hopkins University USA during 28 May 2019 to 14 December 2019

#### **Department of Electronics and Communication Engineering**

- 1. Anirudh B.H. (16EC105) underwent an internship at Georgia Institute of Technology during 01 August 2019 to 17 December 2019.
- 2. Y.P. Yeshwanth, T.P. Vara Prasad, Vivek Mudadla, Pavan and Rekha S. won the best paper award for the paper titled 'Ultra low voltage, low power active-RC filter in 90 nm CMOS technology' in the IEEE International Conference on Distributed Computing, VLSI, Electrical Circuits and Robotics (DISCOVER 2019), during 11-12 August 2019.
- 3. IEEE Student Branch won 18th place in Global Ranking in IEEE Xtreme13.0 coding competition-2019.
- 4. IEEE Darrel Chong Student Activity Award 2019 Bronze
- 5. IEEE R10 (Asia-Pacific) Exemplary Student Branch Award 2019

#### **Department of Information Technology**

- 1. Anumeha Agrawal (16IT107) underwent a summer internship titled 'Structured Model Development' under the guidance of Steve Dalton, Software Engineer, Google, Pittsburgh, during 6 May 2019 to 26 July 2019.
- 2. Abhilash V. (16IT201) underwent a summer internship titled 'On the fly remote deployment of OS' under the guidance of Prof. Florent Gluck, Associate Professor, Hepia, Geneva, during 6 May 2019 to 19 July 2019.

#### **Department of Mathematical and Computational Sciences**

1. Chaitanya G.K., a PhD scholar was awarded V.M. Shah Prize for the year 2019 in the 85<sup>th</sup> Annual Conference of Indian Mathematical Society held at IIT Kharagpur during 22-25 November 2019.

#### **Department of Metallurgical and Materials Engineering**

- 1. K Sujith Bhatt, IV Sem B.Tech, received OPJEMS Scholarship 2019.
- 2. Bharadwaj, IV Sem B.Tech, won 1<sup>st</sup> place in NITTE JKSHIM Biz Quiz.
- 3. Shubhang Bhandarkar, IV Sem B.Tech, won 1st place in NITTE JKSHIM Biz Quiz, 2<sup>nd</sup> place in exQUIZite St.Aloysious College and 2<sup>nd</sup> place in IEEE Sci Tech Quiz SJEC Chapter.

#### **Department of Mining Engineering**

- 1. Akash L. of B.Tech (VII Sem), was awarded Silver medal in Group Dance during NCC Combined Annual Training Camp in October 2019.
- 2. Amandeep Kumar of B.Tech (VII Sem), was awarded second prize in quiz competition, third prize in elocution and third prize in poster making on the occasion of Indian Mining Day organised by Mining Engineers Association of India (MEAI), Bengaluru Chapter, in November 2019.

- 3. Shiv Kumar Prasad of B.Tech (VII Sem), was awarded the first prize in Debate and second prize in quiz competition organized by Mining Engineers Association of India (MEAI), Bengaluru Chapter, in November 2019.
- 4. Suraj Singh of B.Tech (VII Sem), secured first prize in essay competition conducted by Mining Engineers Association of India (MEAI), Bengaluru Chapter, on the occasion of Indian Mining Day in November 2019.
- 5. K. Durga Venkatesh of B.Tech (VII Sem), began a start-up *JIORDINO* which is an online marketplace for farmers to sell their agro-based products online.

### **Projects Sanctioned**

#### **Department of Civil Engineering**

MRPL has sanctioned an amount of Rs. 6.5 lakh for the project titled 'Performance Studies on Concrete Mixed with Spent Catalyst Waste for Sustainable Solutions' with Dr. B.B. Das as the Chief Investigator for two years.

#### **Department of Computer Science and Engineering**

DST has sanctioned an amount of Rs. 4 lakh for a project titled 'Speaker Recognition System for Kannada Language in Emotional Environment', with Dr. Shashidhar G Koolagudi as the Chief Investigator, for the period 2019-2022.

#### **Department of Electrical and Electronics Engineering**

- 1. Naval Research Board, DRDO, has sanctioned an amount of Rs. 33.69 lakh for a project titled 'Theoretical Study and Design of high efficiency wide band class D power amplifier for acoustic transducers', with Dr. P. Partiban as the Chief Investigator and Dr. R. Kalpana as the Co-investigator for the period of 2019-2021.
- 2. NPIU has sanctioned an amount of Rs. 20.40 lakh for a project titled 'Performance Analysis and design of soft computing technique-based MPPT algorithm for PMSG-based WECS', with Dr. A. Karthikeyan as one of the investigators. Other investigators are Mr. Shailendra Gupta GEC Jhalawar, Mr. Ajay Sharma GEC Jhalawar, Mr. Ashish Khandelwal GEC Jhalawar and Mr. Harish Sharma RTU Kota. The project period is 2019-20.

#### **Department of Electronics and Communication Engineering**

- 1. BEL, Bangalore has sanctioned an amount of Rs. 10 lakh for a project titled 'Automatic Bias Estimation Technique for 2D/3D Surveillance radar using Networked Radar Data', with Dr. Pathipati Srihari as the Chief Investigator for the period of 2019-2020.
- 2. RCI, DRDO has sanctioned an amount of Rs. 9.76 lakh for a project titled 'CARS Project: Study of Advanced Radar Signal Processing and Tracking approaches to Detect Low RCS Targets in Heavy Sea Clutter', with Dr. Pathipati Srihari as the Chief Investigator for the period of 2019-2020.
- 3. Deputy Commissioner (Crime & Traffic), Mangalore, has requested for the technical expertise of the department to conduct inspection of CCTV cameras in Mangalore city. The Department has taken it up as part of its outreach activity.

#### **Department of Mining Engineering**

- 1. M/S. MSPL Limited, Hospet, sanctioned a Consultancy Project titled 'Scientific study for stability analysis of benches of Vyasanakere Iron Ore Mine', with Dr. K. Ram Chandar as the Chief Investigator. The project duration was 2019.
- 2. M/S. RMML Limited, Hospet, sanctioned a Consultancy Project titled 'Stability analysis of benches of Iyli Gurunath Iron Ore Mine', with Dr. K. Ram Chandar as the Chief Investigator. The project period was 2019.
- 3. Bharathi Cements, Kadapa, sanctioned a Consultancy Project titled 'Assessment of Impact of Blasting Operations in Bharathi Limestone Mine on Surrounding Structures', with Dr. K. Ram Chandar as the Chief Investigator. The project period was 2019.
- 4. SCCL sanctioned a Consultancy Project titled 'Scientific study for slope stability, OB dumps and highwalls at KTK OC III of BHPL Area', with Dr. K. Ram Chandar as the Chief Investigator. The project period was 2019.
- 5. SCCL sanctioned a Consultancy Project titled 'Scientific study for design of ultimate pit slope, OB dump slope and monitoring of stability of pit and dump at KTK OC-II project, Bhupalpalli Area', with Dr. K. Ram Chandar as the Chief Investigator. The project period was 2019.

## **Centrally Organised Events**

#### **Orientation and Induction Programme**

The Orientation Programme for all the first year B.Tech. students was conducted on 24 July 2019 at Silver Jubilee Auditorium (SJA) of the Institute. All the first year students, along with their parents, attended the programme.



**Inauguration of the Orientation Programme** 

The Induction Programme for the benefit of newly joined first year UG students was conducted from 25 July to 6 August 2019. They were trained in various aspects of fitness and stress management. They were also exposed to various art forms such as music, dance, etc.



Activities under the Induction Programme in progress.

#### NITK's Step towards Lush Green Campus

In view of making NITK a lush green campus, planting of saplings was initiated in the campus on 15 August 2019. Prof. K. Umamaheshwar Rao, Director of NITK initiated this activity by planting five saplings. As many as two thousand saplings of sixty different species (to resonate with 'sixty' years of the Diamond Jubilee) have been planted in both the eastern and the western sides of the campus. The activity was conducted for 14 days. Prof. Arun M. Isloor coordinated the event.



Prof. N.R. Shetty plants a sapling.

#### **Teachers' Day**

A felicitation programme was organised to honour the former faculty and staff on Teachers' Day, 5 September 2019. Prof. Subhash Yaragal, In-charge Dean (FW), welcomed the gathering. Prof. Ananthanaryana V.S., Deputy Director, addressed the gathering and presidential remarks were made by Prof. K. Balaveera Reddy, Chairman, BOG.



Former staff of central administration felicitated on Teachers' Day celebration

#### **Academic Summit**

An Academic Summit was organised on Teachers' Day to felicitate alumni serving academia across India, conferring *Distinguished Alumnus / Alumna Award* as part of a series of programmes under Diamond Jubilee celebrations. All academic departments were to nominate one distinguished alumnus / alumna serving Indian academia. All invited alumni were requested to deliver a seminar on the topic 'Future Challenges in Engineering Education'. This was followed by a Panel Discussion on the topic 'Mission to realize Academic Excellence in NITK', which had participation of invited alumni. The discussion was moderated by Prof. M.B.

Saidutta, Dean (Academic). The event started with welcome address by Prof. K.P. Vittal, Dean (AA & IR), followed by address by Prof. K. Umamaheshwar Rao, Director, NITK, and presidential address by Prof. K. Balaveera Reddy, Chairman, BOG. Ten alumni serving academia were felicitated conferring Distinguished Alumnus / Alumna Award.



Distinguished alumni felicitated during the Academic Summit

#### **Engineers' Day & Technology Summit**

A Technology Summit was organised as part of Engineers' Day Celebrations on 15 September 2019. Fifteen alumni members serving Industry / Research Organisations / Government Services across India were identified and felicitated conferring Distinguished Alumnus / Alumna Award. All invited alumni were requested to deliver a seminar on the topic 'Future Challenges in Indian Engineering Industry / Organisation'. The event started with welcome address by Prof. U. Shripathi Acharya, Dean (R&C), followed by briefing on Technology Summit by Prof. K.P. Vittal, Dean (AA&IR). Prof. K. Umamaheshwar Rao, Director, NITK, addressed the gathering. Presidential address was delivered by Prof. K. Balaveera Reddy, Chairman, BOG.



Distinguished Alumni felicitated during Technology Summit

#### **International Coastal Clean-up Day 2019**

As part of *Swacchataa Hi Seva* movement, students along with the Director, Dean (SW) and SAS officers, joined the Coast Guard team in the Coastal Clean-up drive on 21 September 2019. The Director inaugurated the programme and emphasized the importance of such activities.



Director inaugurates the Coastal Clean-up activity.

#### **Self-Defence Training Programme**

As per MHRD guidelines to provide better and safe environment to women and child development, Self-Defence Training Programme was inaugurated on 24 September 2019 in ISTE seminar hall of our Institute. The training programme was conducted from 25 September to 16 October 2019. Many women and girl students took part in the training programme.



**Inaugural of the Self-defence Training Programme** 

#### Fit India and Swacchata Ka Irada Celebrations

As a part of *Swacchata hi Seva* movement, 'Fit India and *Swacchata ka Irada*' was celebrated on 2 October 2019 on the occasion of 150th Birthday of Mahatma Gandhi and 114th Birthday of Lal Bahadur Shastri. The programme started at 7:00 AM simultaneously at two locations – (i) Main Ground and (ii) Pavilion.

Director, Dean (Students' Welfare), SAS Officer - Dr. Manoj, all the wardens, staff of sports department and hostels and all the students assembled at the main ground. At the outset, two-minutes of silence was observed in respect of Mahatma Gandhi and Lal Bahadur Shastri. Director, Prof. K. Umamheshwara Rao, addressed the gathering and emphasised on the importance of the event and responsibilities of the students to keep their campus clean. He also urged the students to participate in sports and games on a regular basis to keep the body fit and to keep the FIT India Movement alive. The Director administered the pledge to the gathering. After the pledge, the students went for a Plogging run (combination of jogging and picking up litter) around the campus covering a distance of about 2 KMs.

In the second venue, i.e. the Pavilion, the Deputy Director, Prof. Ananthanarayana V.S. addressed the gathering that consisted of all Deans, Registrar, HoDs, SAS Officer - Dr. Hemprasadnath, the faculty and staff. After the address, the pledge was administered by the Deputy Director. Following this, the participants volunteered for cleaning the Institute premises. All participants were served with refreshments.

## Freshers' Cup

Phoenix Committee, NITK, organized Freshers' Cup during 12-14 October 2019. This was the first sporting event of the academic year and it was exclusively for all the freshers of the academic year 2019-20. The event had Inter-section indoor and outdoor games such as Cricket, Football, Kabaddi, Basketball, Throwball, Badminton, Table tennis, Volleyball, Chess, Carom, etc. This event attracted around 700 participants who took part in different sporting events.





Sporting events - Kabaddi and Volley Ball games in progress.

## Rashtriya Ekta Diwas Celebrations 2019 and 'Unity Run'

On the occasion of 144<sup>th</sup> birthday of Sardar Vallabhbhai Patel, the institute organized *Rashtriya Ekta Diwas* celebration followed by Unity Run on 31 October 2019.

Chairperson, Director, Deputy Director, Deans, Registrar, Joint Registrar, faculty, staff and students assembled at the Institute Main Building at 6.45 AM. T-Shirts – specially prepared for the occasion – were distributed to all of them. The programme started with welcome speech by the Deputy Director, Prof. V.S. Ananthanarayana. Prof. K. Balaveera Reddy, Chairperson BOG, addressed the gathering. Prof. K. Umamaheshwar Rao, Director NITK Surathkal, highlighted the importance of this day and appealed the audience to strive for unity, integrity and internal security. Following this, Ekta Pledge was administered by Prof. Jagannatha Nayak, Dean (SW), in English and Prof. U. Sripathi Acharya, Dean (R&C) in Hindi. Dean (SW) presented the vote of thanks.

The Unity Run from NITK to Surathkal Junction and back to NITK, covering a distance of about 5 KMs, was kick-started by waving the flag by the Chairperson, Prof. K. Balaveera Reddy. More than 800 students including 200 girls along with faculty and staff participated and successfully completed the run.



Prof. K. Umamaheshwar Rao addresses the gathering.

Students participating in the Unity Run.



### Yoga Camp under the Fit India Initiative

The first batch of 9-day Yoga Mudra Camp was held during 3 November 2019 to 12 November 2019 in the Staff Recreation Club for the benefit of faculty, staff, students and residents of the NITK Surathkal Campus.



**Inaugural of the Yoga Mudra Camp** 

#### **National Education Day-2019**

National Education day was celebrated on 11 November 2019 to commemorate the birth anniversary of Maulana Abul Kalam Azad. As part of National Education Day, an elocution competition was held on 9 November 2019 for NITK students on the topic 'Indian Education System: Challenges and Prospects in Building the Culture of Innovation'. Many undergraduate and postgraduate students participated and presented their views. Further, a quiz competition for students was held on 11 November 2019 on the theme 'Current Affairs: Indian Education System'. More than 100 students participated in the event.





Elocution competition on 9 November 2019 as a part of National Education Day-2019

A programme to pay tribute to a Maulana Abul Kalam Azad was conducted at 3 pm in the Main Seminar Hall of the Institute on 11 November 2019 at 3.00 PM. This programme was attended by deans, faculty, staff and students of the institute. Prof Manjunatha Pattabhi, Chairman of Material Science Department, Mangalore University, was the Chief Guest and Dr. U. Balachandran, Argonne Distinguished Fellow and Section leader-

Ceramics, at Argonne National Laboratory, Illinois, USA, was the Guest of Honour. The programme was presided by Prof. Ananthanarayana V.S., Deputy Director, NITK Surathkal.

#### **Constitution Day**



Constitution Day was celebrated on 26 November 2019. Deputy Director, Prof. Ananthanarayana V.S. administered the pledge.



Prof. Rajaram Tolpady, Director, Nehru Centre, Mangalore University, spoke on the spirit of Indian Constitution. He also gave away prizes to students who participated and won prizes in an elocution competition on Indian constitution, held earlier.

# **TEQIP III**

As part of the twinning activity in TEQIP-III, 87 students from the mentee institute, GEC Jhalawar, visited our Institute during June 3 to July 5, 2019 for a four-week internship. These students were from the disciplines of Computer Science and Engineering, Information Technology, Civil Engineering, Mechanical Engineering, and Electrical Engineering. They spent the internship duration in the respective departments at NITK, Surathkal. The internship activities involved classroom teaching in specific topics from their curriculum, exposure to state-of-the-art laboratories, training in experiments, and so on. The GEC-J students were provided boarding and lodging in the NITK hostels. The feedback of the students given during the certificate distribution programme indicated that they were enriched by the experiences, and were motivated to take up larger projects and challenges in their professional life ahead.



Deputy Director, Prof. Ananthanarayana V.S. distributing certificates to the participants

## **Alumni Activities**

## **Finishing School Programme**

This is an initiative developed by the Alumni Association to impart life skills, soft skills and employability skills to the students. The Association has signed an MoU with KPG (Government of Gujarat), who have designed this course for the students. This programme is supported by Career Development Centre (CDC), TEQIP and the Students Council of the Institute. The programme was inaugurated on 22 August 2019 in the presence of Mrs. Aparna Chandrashekhar, Main Facilitator, Finishing



Inauguration of the programme

School Programme; Prof. Jagannath Nayak, Dean (Students Welfare) and I. Chandrakantha Rao, General Secretary, NITKSAA. The classes for the enrolled students were held during the Saturdays and Sundays.

#### **Global Convention**

The 12<sup>th</sup> Global convention (GC12) of NITK Surathkal Alumni Association was held in Hyderabad on 21 and 22 December 2019. The venue for this mega event hosted by the Andhra Pradesh and Telangana Chapter was Classic Gardens, Secunderabad, Telangana. GC12 was chaired by Prof. K. Balaveera Reddy, Chairman-BOG. Co-host was Prof. K. Umamaheshwar Rao, Director NITK. Dr Suresh Audimulapu, Education Minister, Government of AP, was the Chief Guest. Prof Udaykumar R. Yaragatti, Director, MNIT Jaipur and Prof. Gopal Mugeraya, Director, NIT-Goa were the Guests of Honour.



Mr. B.K. Krishnamurthy, President NITK Alumni Association, Prof. K. Panduranga Vittal, Dean (AA&IR) NITK, Mr. A.S. Karanth, Mr. Gopala Bhupala were also present during the occasion. More than 250 alumni and their family members from all over India and abroad attended the event and made GC12 a successful event. The event truly accomplished the objectives of its tag line 'Invite, Inspire and Ignite'.

#### **NITK Alumni Batches Reunion**

- 1. 1971 batch of B.Tech gathered at the NITK campus during 14-15 December 2019.
- 2. 1976 batch of B.Tech reunion organised on 21 and 22 December 2019.
- 3. 1994 batch of B.Tech organised their Silver Jubilee Reunion on 21 and 22 December 2019.
- 4. 1978-79 batch organised a friendly match at the institute cricket ground on 21 December 2019 from 10 AM to 2 PM.
- 5. 1983 batch of B.Tech organised their reunion on the Campus on 27 and 28 December 2019.

## **Research Projects and Support to SIP**

## **Research Project Details**

Projects for the Reporting Period	Number	Amount (in Rs.)
Currently Running Projects	166	19,53,11,391/-
Completed Projects	2	4,00,000/-
New Projects	26	2,57,82,582/-

## Financial Support Rendered from Student Internship Fund

Conference/ Training/ Interaction Particulars	Student Particulars	Total Number of students attended/visited
Conference Abroad	Ph.D	11
	B.Tech	2
Conference India	M.Tech	8
	B.Tech	3
Training/visit abroad	B.Tech	4
Research Interaction		1

# **MOUs Signed During July-December 2019**

- 1. An MoU was signed with Hewlett Packard Enterprise Globalsoft Pvt. Ltd., Bangalore, on 20 August 2019 for five years. The area of collaboration would be pertaining to engaging NITK students in potential internship activities and in-semester projects; conducting periodic workshop /seminars (with HPE experts and organised by NITK) on topics of mutual interest at NITK Surathkal; organising webinars, conference, coding competitions, etc.; exploring potential setup of lab facility at NITK; exploring research avenues in high performance computing and other research activities.
- 2. An MoU was signed with IIT, Jammu on 15 December 2019 for five years. The area of collaboration would be to promote defence research, national and international academic cooperation in education, research and consultancy; Exchange of materials in education, research and consultancy, publications, and academic information; Exchange of faculty and research scholars; Exchange of students; Joint research and meetings for education, research and consultancy; Technical assistance, training for defence personnel, faculty students and the local community. sharing resources for the benefit of students, faculty and research scholars of the institutes.



Signing of MoU between NITK Surathkal and IIT Jammu

## **Student Activities**

## Hudugata-Hudukata (Treasure Hunt)

Kannada Vedike organized *Hudugata-Hudukata* (Treasure Hunt) for all the freshers of the academic year 2019-20 on 17 August 2019. The main theme of the event was to make the freshers explore the vast campus and be familiar with all the main locations in the campus. Around 400 students participated in the event and it was a huge success.



Participants of *Hudugata-Hudukata* 

## **Visit to Special School**

Members of Kannada Vedike visited Lion's Club school for mentally-challenged children in Surathkal on 4 November 2019 as part of their annual social responsibility activity. They organized a few fun events for the children and also provided the school with books and sports equipment.



**Engaging the children at the School** 

#### **Parva 2019**

The major event of the Kannada Vedike, the celebration of Karnataka's Culture and Heritage, *Parva* 2019 was celebrated on 10 November 2019. Shri Santhosh Hegde, former judge of the Supreme Court of India, was the chief guest for the event. The event started with the procession of Bhuvaneshwari Devi from the Institute Gate to the Silver Jubilee Auditorium followed by address by the chief guest and then, the cultural programme. Karnataka's culture and cuisine were showcased.



Director Prof. K. Umamaheshwar Rao presided over the ceremony. Dean (SW), Prof. Jagannatha Nayak and the club's faculty advisor Dr. Nagamma Patil were also present.

#### **SPICMACAY**



Ottan Thullal, a dance and poetic performance form of Kerala, was organised by the SPICMACAY chapter of the Institute. Vidwan Kalamandalam Mohanakrishnan rendered the performance. Shri Suresh provided the vocal accompaniment and Shri Rajeev accompanied on the Mridangam.

#### **Engineer 2019**

The annual technical symposium of the institute, *Engineer* 2019, was celebrated from 18 to 20 October 2019. The 3-day long event commenced in the presence of Mitra-humanoid robot. Alok Ohrie, Chairman of Dell India, was the chief guest for the inauguration ceremony. The first day was filled with eye-catching events like Bot Hockey (hockey played by bots built by students), wright flight (flying models built by students), NITK MUN, and Mock Press. For gaming enthusiasts, there were several gaming competitions like CS GO, DOTA, FIFA, etc.

In addition to this, there were workshops such as IOT with google assistant, drone workshop, autonomous driverless car design workshop, etc. The day concluded with Engi-talks by Sharad Sagar, CEO of Dexterity Global and Technites, an exhibition of the technical projects done by NITK students.



Inaugural of Engineer 2019

The second day had exciting events in the pocket. The day started with Tech-mela where students witnessed various scientific inventions such as hand gesture controlled drone, dancing robots, and formula one car simulation game. Techmela was followed by Engi-talk in which the crowd was inspired by the words of Major Deepak Rao. The talk was attended by every NITK NCC cadet. Major Rao was presented a memento by Ram Prasad Bhat, Security Officer of the Institute. In the evening, the crowd burst out laughing witnessing the performances by TVF stars Shivankit Singh and Badri Chavan. Following the hilarious event, the audience was mesmerized by a laser show.

The starting of the third day was marked by Robo wars. In the afternoon, a rally was organized to support Cauvery Calling, an initiative to revive the river Cauvery by planting trees in its basin. Students were encouraged to donate for this noble cause. This was followed by stunning bike stunts of RDX, a renowned bike stunt group. At night, the atmosphere was filled with echoes of the musical tunes performed by the Zephyrtone. Following this, the college aura was heated up as the students danced to the beats of DI Shireen.



A still from a student discussion

#### Film Festival

NITK's 5<sup>th</sup> annual film festival began on 25 October and went on till 27 October 2019. The inauguration was graced by the national award-winning film critic M.K. Raghavendra who spoke about the necessity of watching the right kind of films for our personal development. This was followed by eventful-interaction with the cast of Mundina Nildana. The festival also included interactions with the director of Shuddhi and



The inaugural of the Film Festival

cast of Kavaludaari. The movies screened were special and aimed at creating awareness about societal issues. The film fest comprised multilingual movies such as Capernaum (Arabic), Shuddhi (Kannada), Mahanati (Telugu), etc.

As a pre-fest competition, the NITK Films club had a national short film contest to encourage the skill of film-making by screening the winner's

film. It also had a film quiz for movie enthusiasts with questions about all genres of movies.

## **Data from IIP Cell**

Sl. No.	Item (During July to December 2019)	Particulars
1	Testing and Consultancy revenue generated	Rs. 96 lakh
2	Patent application filed	9

# Placement Statistics for the Year 2019-20 (Career Development Centre)

DEPARTMENT	ELIGIBLE STUDENTS	PLACED	% PLACED
	B.Tech		
CIVIL	71	46	64.78
CHEMICAL	31	26	83.87
COMPUTER SCIENCE	97	95	97.93
ELECTRONICS & COMMUNICATION	99	89	89.89
ELECTRICAL & ELECTRONICS	91	76	83.51
INFORMATION TECHNOLOGY	95	95	100
MECHANICAL	120	98	81.66
METALLURGYCAL & MATERIALS	36	31	86.11
MINING	30	13	43.33
Total B.Tech	670	569	84.92
	M.Tech		
	CIVIL		
STRUCTURAL ENGG.	22	14	63.63
GEO TECH ENGG	14	6	42.85
ENVIRONMENTAL ENGG	22	9	40.90
TRANSPORTATION SYSTEMS ENGG	21	4	19.04
CONSTRUCTION TECH & MGMT	23	1	4.34
APPLI	ED MECHANICS & HYDRAULI	CS	
MARINE STRUCTURES	24	9	37.5
WATER RESOURCE ENGG & MGMT	13	1	7.69
REMOTE SENSING & GIS	20	0	0
	CHEMICAL		
INDUSTRIAL POLLUTION CONTROL	9	4	44.44
CHEMICAL PLANT DESIGN	7	1	14.28
INDUSTRIAL BIOTECHNOLOGY	19	3	15.78
	COMPUTER SCIENCE		
COMPUTER SCIENCE & ENGG	29	27	93.10
INFORMATION SECURITY	26	25	96.15

ELE	CTRONICS & COMMUNICATION	ON								
VLSI	28	10	35.71							
COMMUNICATION ENGG	21	14	66.66							
ELECTRICAL & ELECTRONICS										
POWER & ENERGY SYSTEM	23	7	30.43							
INFORMATION TECHNOLOGY										
INFORMATION TECHNOLOGY	22	20	90.90							
-	MECHANICAL									
THERMAL ENGG	18	13	72.22							
MANUFACTURING ENGG	15	2	13.33							
MECHATRONICS	21	8	38.09							
DESIGN & PRECISION	17	7	41.17							
MI	ETALLURGICAL & MATERIAL	S								
PROCESS MET.	10	2	20							
MATERIALS ENGG.	14	3	21.42							
NANOSCIENCE AND NANOTECH	6	0	0							
MATHEMA	ATICAL & COMPUTATIONAL S	SCIENCE								
COMPUTATIONAL MATHEMATICS	20	12	60							
Total M.Tech	464	202	43.53							
MCA	82	73	89.02							
MBA	20	17	85							
MSc (Chemistry)	25	4	16							
MSc (Physics)	21	1	4.76							
TOTAL	ELIGIBLE STUDENTS	PLACED STUDENTS	TOTAL % PLACED							
	1282	866	67.55							
Total Companies Visited: 228	Max	imum CTC Rs. 49.75	Lakhs							
Average Salary UG: Rs. 11.52 LPA	UG: 84.92% PG: 48.5									

# **Internship Statistics for the year 2019-20**

	Sl.No.	Name of the Company	Chem	Civil	Comp	E&C	E&E	IT	Mech	Met	Mining	No. of Interns
	01	D E Shaw			01	01		01				03
	02	Bajaj Auto Limited							02			02
	03	Sprinklr						01				01
	04	Arcesium						03				03
MAN	05	Microsoft			08			03				11
	06	Intuit			02			02				04

07	Uber						03				03
08	Samsung R&D			05	01		08				14
09	Qualcomm				04	02					06
10	Goldman Sachs			03			05				08
11	Morgan Stanley			02			01				03
12	NVIDIA				03						03
13	Oracle			06			01				07
14	Amazon			04		01	06				11
15	Flipchart			02							02
16	Visa Inc			05			05				10
17	CISCO			02			02				04
18	Texas Instruments				03	01					04
19	Walmart Labs			02			04				06
20	Samsung Semiconductor			01	06						07
21	Infoworks			02			02				04
22	Honeywell			02			03				05
23	Sap Labs India			02		01	01				04
24	Fidelity Business	01	01	06	01	01	03		01		14
25	J P Morgan			01							01
26	Exxon Mobil	01						01			02
27	Publicis Sapient			03			02				05
28	Graphene		02	01		02					05
29	НРЕ			01			02				03
30	Adobe			01	01						02
31	Adobe Systems						01				01
32	Microland Ltd.		01				01				02
33	GEP Solutions			01			04				05
34	CITI			03	02	01	04				10
35	American Express					01					01
36	Ather Energy				02		01				03
37	Caterpillar India							02			02
38	Abin Bev				01	01		03			05
39	Swiggy						02				02
40	Ugam Solutions			03							03
41	Credit Suisse			02			01				03
42	Ansys Software						01				01
43	Textron	01			02				01		04
44	Standard Chartered			03			01	02		01	07
45	Boeing				02			03			05

46	Infotech				01		01		01		03
47	Tenovia		01			01		01			03
48	Siemens						01				01
49	Infotech	01					01		01	01	04
50	Thermax							02			02
51	MRPL	01									01
52	Saint Gobain							01			01
53	MTR							04			04
	Total	05	05	74	30	12	77	21	04	02	230

Sl. No.	Branch	No. of Internship
01	Chemical Engineering	05
02	Civil Engineering	05
03	Computer Engineering	74
04	Electronics & Communication Engineering	30
05	Electrical & Electronics Engineering	12
06	Information Technology	77
07	Mechanical Engineering	21
08	Metallurgical & Material Engineering	04
09	Mining Engineering	02
	Total	230

## **Scholarship through Career Development Centre (CDC)**

M/s Boeing (Global), under Boeing Global Engagement, have extended a grant of USD 13600.00. This grant is to be utilized for the following purposes:

- 1. Provide 4 scholarships of USD 900.00 each to B. Tech / M. Tech students from ME/ECE/EEE Departments.
- 2. Organize 3-4 outreach activities such as workshops related to Aerospace at the institute. These workshops will be for students of the institute and nearby engineering colleges. Experts will be drawn from Boeing and other academic institutes of higher learning.

# **Centre for System Design (CSD)**

CSD is a transdisciplinary centre for research and development at NITK Surathkal, working on the needs of government, industry and academia to address technological and design challenges that transcend traditional boundaries of standalone disciplines to build robust engineering systems. CSD has undertaken several projects for the institute as well as for external institutions like government bodies, public sector undertakings, academic institutions and other industrial organisations.

**Virtual Labs,** with its inception dating back to the last decade, is the first large scale interdisciplinary project with MHRD funding undertaken by the Centre for System Design. NITK Surathkal is associated with this novel mission of ICT-aided experiential learning as one among the eleven distinguished Participating Institutes (PI) across the country, engaged in the development, maintenance and outreach of the online resources under the Virtual Labs project on behalf of MHRD – NMEICT.

SOLVE (Student Online Laboratory for Virtual Experimentation), the Virtual Lab team of CSD, NITK Surathkal, has so far developed 126 experiments in 14 lab courses on the platform being used as a learning tool by students from far and wide and conducted 150+ workshops on Virtual Labs at various institutes across the country. NITK Surathkal mentors

80+ institutions of the region which are serving as the Nodal Centres of Virtual Labs. The institute also houses a unique 'Remote Triggered Lab' where students from anywhere in the world can remotely trigger an experiment in an actual lab and get the result of the experiment through the computer interface.

As part of the outreach activities of Virtual Labs, during July-December 2019, around 30 institutions have tied up as Nodal Centres of Virtual Labs, NITK Surathkal. A total of 28 workshops were conducted by the Virtual Labs team of NITK Surathkal during the period, catering to more than 2600 faculty as well as student participants from various disciplines. Around 10 workshops were conducted at CSD Presentation Hall, NITK Surathkal, while the rest of the workshops were hosted by the nodal centres.

## We are thankful to the dedicated service of the following faculty on their Retirement



**Prof. G. Srinikethan**Professor (HAG),
Dept. of Chemical Engg.
Retired on 31 August 2019



Prof. A. Vasudeva Adhikari Professor (HAG), Dept. of Chemistry Retired on 30 September 2019



Prof. A.O. Surendranathan
Professor (HAG)
Dept. of Metallurgical and
Material Sciences
Retired on 31 October 2019



Prof. Kasturi V. Bangera
Professor (HAG)
Dept. of Physics
Retired (VRS) on
30 November 2019

## We are thankful to the dedicated service of the following Non-Teaching Staff on their Retirement



Smt. Shamila Nandini Senior Assistant Retired on 31 July 2019



Sri Babu Shetty
Assistant (SG-I)
Retired on 30 November 2019



