

NITK NEWS LETTER

WAVES

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National Institute of Technology Karnataka, Surathkal
Mangalore - 575 025, Karnataka, India



Message from the Director



I am pleased to write this message to the seventh volume of the institute newsletter, Waves. As I take charge of the Institute at this crucial juncture, the challenges are enormous – especially that of steering the whole academics forward, off from the online mode and towards a more potential scenario when we reap the benefits of both physical and virtual platforms, learning from our recent past. The last one year was dotted with our efforts in the educational realm to grapple with the pitfalls of finding a new normal. However, as an institute, NITK has been making progress on several fronts too, which makes us proud. First and foremost, it was our upgrading in NIRF 2021 ranking. The fact that we have been able to break into the top ten engineering institutes in the country gives us a vast psychological advantage to navigate our future course of action. This attainment has been made possible also by a steady increase in the number of research publications, patents, etc. in the last several months. Research in the institute gets a shot in the arm as we have been able to procure 23 equipment of cutting-edge technology at our Central Research Facility (CRF) which makes us a research destination for many an inquiring mind. In the last year, we have been able to establish formal liaisons of cooperative research with 16 entities – both in industry and academia.

As we open the portals of our institute to individuals who have been our students, but never experienced the environs firsthand for the last few semesters, we are aware of the variety of challenges daunting us. There is absolutely no scope for any complacency. Each moment is critical for us to not only make up for what we lost out in the last two years but also to learn a few lessons of gain from the same phase. We yearn to engage ourselves as individuals and as an institute in this endeavour and achieve further excellence in the times to come.

Udaykumar R. Yaragatti

Prefatory Note

This issue of *Waves* covers the prominent Institute activities during January-December 2021. In fact, it brings the first and second numbers of the volume VII together. With this, we try to address the accumulated delay of the lockdown phases as the process of publication took its own sweet time then. We are thankful to all teaching and non-teaching staff, editorial team and administration for their continued cooperation in bringing out this issue. We hope this issue serves as a comprehensive digest of some of the important activities and news from the Institute for the reporting period. As always, we cannot and do not claim to cover *all* happenings and *all* achievements accomplished by the Institute stakeholders during this time.



Shashikantha Koudur and T.K. Shajahan
Coordinators - *Waves*

Editorial Team

Shashikantha Koudur

Coordinator

T.K. Shajahan

Co-Coordinator

Asst. Registrar (Academic)

Co-Coordinator

Vidya Shetty K.

Dean (Academic)

G.C. Mohan Kumar

Dean (Faculty Welfare)

K.S. Babunarayan

Dean (Planning & Development)

Narendranath S.

Dean (Students Welfare)

Vijay H. Desai

Dean (Alumni Affairs & Institutional Relations)

Satyabodh M. Kulkarni

Dean (Research and Consultancy)

S. Shrihari

Chairman, Career Development Centre

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Details of Deanship



Prof. K.S. Babu Narayan took charge as Dean (Planning & Development) on 30 July 2021.



Prof. Vijay Desai took charge as Dean (Alumni Affairs and Institutional Relations) on 1 September 2021



Prof. Vidya Shetty K. took charge as Dean (Academic) on 1 October 2021.



Prof. Narendranath S. took charge as Dean (Students' Welfare) on 15 October 2021.



Prof. Satyabodh M. Kulkarni took charge as Dean (Research & Consultancy) on 31 December 2021.

Heads of the Departments Appointed in 2021



Dr. Shashidhar G. Koolagudi took charge as Head of the Department of Computer Science & Engineering on 15 February 2021.



Prof. Basavanand M. Dodamani took charge as Head of the Department of Water Resources and Ocean Engineering on 25 March 2021.



Prof. Ashvini Chaturvedi took charge as Head of the Department of Electronics & Communication Engineering on 16 April 2021.



Dr. Mangalpady Aruna took charge as Head of the Department of Mining Engineering on 20 April 2021.



Prof. Jayalekshmi B. R. took charge as Head of the Department of Civil Engineering on 22 April 2021.



Prof. Gururaj S. Punekar took charge as Head of the Department of Electrical & Electronics Engineering on 7 June 2021.



Dr. Uday Kumar Dalimba took charge as Head of the Department of Chemistry on 11 August 2021.



Dr. R. Madhusudhan took charge as Head of the Department of Mathematical and Computational Sciences on 16 August 2021.



Dr. Jaidhar C.D. took charge as Head of the Department of Information Technology on 19 August 2021.



Dr. Rajesh Acharya H. took charge as Head of the School of Management on 02 September 2021.



Dr. P. E. Jagadeesh Babu took charge as Head of the Department of Chemical Engineering on 03 September 2021.



Prof. Ravikiran Kadoli took charge as Head of the Department of Mechanical Engineering on 31 December 2021.

List of faculty members assigned with the responsibility of Associate Dean

Sl. No.	Domain	Positions	Name of the faculty members	With effect from
1	Research and Consultancy	Associate Dean (R&C) - I	Dr. Subhaschandra Kattimani, Associate Professor, Department of Mechanical Engineering.	29.07.2021
2		Associate Dean (R&C) - II	Dr. Hari Prasad Dasari, Associate Professor, Department of Chemical Engineering.	29.07.2021
1	Alumni Affairs and Institutional Relations	Associate Dean (AA&IR) - I	Dr. Navin Karanth P, Associate Professor, Department of Mechanical Engineering.	29.07.2021
2		Associate Dean (SW) - II	Dr. C.P. Devatha, Associate Professor, Department of Civil Engineering.	29.07.2021
1	Students Welfare	Associate Dean (SW) - I	Dr. Alwyn Roshan Pais, Associate Professor, Department of Computer Science and Engineering.	29.07.2021
2		Associate Dean (FW) - I	Dr. P. Sam Johnson, Associate Professor, Department of Mathematical and Computational Sciences.	29.07.2021
1	Faculty Welfare	Associate Dean (FW) - I	Dr. P. Sam Johnson, Associate Professor, Department of Mathematical and Computational Sciences.	29.07.2021
2		Associate Dean (FW) - II	Dr. Harsha Vardhan, Professor, Department of Mining Engineering.	29.07.2021

List of faculty members assigned with the responsibility of Associate Dean

Sl. No.	Domain	Positions	Name of the faculty members	With effect from
1	Academic	Associate Dean (Academic) - UG	Dr. Ramesh Kini M., Associate Professor, Department of Electronics and Communication Engineering	01.10.2021
2		Associate Dean (Academic) – PG&R	Dr. Manjunatha Sharman K., Associate Professor, Department of Electrical and Electronics Engineering	15.07.2021

Nomination of faculty members as “Faculty Advisor” for various clubs of the Institute

Sl. No.	Club Name	Faculty Advisor	Name of the Department	From
1	Films Club	Dr. Sharnappa Joladarashi	Mechanical Engg.	22.11.2021
2	Rotaract Club	Dr. Dharavath Kishan	E&E Engg.	22.11.2021
3	ACM Club	Dr. Sourav Kanti Addya	CS Engg.	22.11.2021
4	SPICMACAY	Dr. K.R. Guruprasad	Mechanical Engg.	22.11.2021
5	Amateur Astronomy Club (AAC)	Dr. Sreenath V.	Physics	22.11.2021

Achievements and Awards

Improvement in NIRF Ranking

NITK Surathkal has bagged the 10th position in the category of Engineering School rankings, 32nd place in the Overall University/Institute ranking and 40th rank in the research category in the Union Government's National Institute Ranking Framework (NIRF) rankings for 2021. The Institute has improved its position by three places in the engineering ranking (from 13th in 2020 to 10th in 2021) and by one place in the overall rankings (from 33rd to 32nd). The Institute has been adjudged as the second-best National Institute of Technology (NIT) among 31 NITs in the country.

Best University Library Award



Central Library, National Institute of Technology Karnataka, Surathkal, was conferred the “ILA-Dr. L.M. Padhya Best University Library Award 2020” by Indian Library Association, New Delhi. The award was given in recognition of its innovative library services and state-of-the-art infrastructural facilities provided in the library for the students, faculty and staff of the institute. NITK Surathkal is the first among all NITs to receive this prestigious award from the Indian Library Association.

Dr. Mallikarjun Angadi, Librarian, NITK Surathkal, received the award and citation during the 66th Annual Conference of India Library Association, held at Gulbarga University, Kalaburagi, during 27-28 September 2021.

ISRO-RACS NITK Surathkal

ISRO-Regional Academic Centre for Space (RACS) NITK got six joint research projects and the first Annual Grant of Rs. 1,35,37,563/- was sanctioned towards implementation of these projects.

Patents Granted

Sl No.	Name of Faculty / Students	Department	Title	Date of Grant
1	Dr. Raj Mohan Balakrishnan, Dr. Keyur Raval, Vishnu M.	Chemical	Method, System and Apparatus for Arsenic Removal from Water using Functionalized Melanin	03.06.2021

2	Dr. Ananthanarayana V.S., Sakthi Murugan R.	IT	Method and system for dynamic word encoding and compression of data	18.08.2021
3	Dr. Hari Prasad Dasari, Chaitra S. Shenoy, Atmuri Shourya	Chemical	A Method and Composition for Soot Oxidation in a Diesel Particulate Filter	25.08.2021
4	Dr. R. Kalpana	E&E	Method and system for maximum power point tracking of a pv-array during non-uniform insolation conditions	30.08.2021
5	Dr. R. Kalpana	E&E	A multiphase transformer rectifier unit and a method thereof	02.12.2021

Patents Published

Sl No.	Name of Faculty / Students	Department	Title	Date of Publication
1	Dr. Bhawana Rudra	IT	Method, System and Apparatus for Accurate Run-Out Decision	12.02.2021
2	Dr. Subray Hegde, et al	MET	Method and system for producing elongated grains in wrought metals with superior creep resistance	26.02.2021
3	Dr. Subray R. Hegde, J.K. Rakshan, Sudhir Hegde, et al	MET	Industrial thermocouples with superior creep resistance	26.02.2021
4	Dr. Datttraya Gaonkar et al	E&E	A method for islanding detection based on image classification with ensemble convolution neural networks	12.03.2021
5	Dr. P. Santhi Thilagam, Amit Prasad	CSE	Method and system for detecting asymmetric application layer DDOS attacks based on user access patterns	09.04.2021

6	Dr. Adka Nithyananda Shetty, et al	Chemistry	Method and System for Synthesis of Electrode and Electrolyte Materials for High Energy Storage Devices	07.05.2021
7	Dr. Jagannathan T. K., Kishor Kumar M.J.	Chemical	Method and composition for fabricating a high-k dielectric material	28.05.2021
8	Dr. Suresha S.N., Nigappa A.	Civil	Direct Compaction Mould for Preparation of Bitumen Bounded Fine Aggregate Matrix Specimen	20.08.2021
9	Dr. Saikat Dutta, Dr. Sib Sankar Mal, Sharath B. Onkarappa, Navya Subray Bhat	Chemistry	Efficient production of furanics and levulinic acid from carbohydrates using quaternary ammonium salts as an additive	27.08.2021
10	Dr. B.R. Chandavarkar	CSE	A traveller's optimum route recommendation system	10.12.2021
11	Dr. Y. Suresh	E&E	Method System & Apparatus for converting single DC to three phase using unidirectional sinewave generators	10.12.2021
12	Dr. Harsha Vardhan	Mining	A system for mineral separation & a process thereof Combining froth flotation & gravity separation	28.05.2021
13	Dastagiri Reddy	E&E	Smart Electric Vehicle Charging Station	30.07.2021
14	Dr. Harsha Vardhan	Mining	Hydro Squeeze pressure Filtering for efficient Beneficiation of Coal material	09.07.2021

Testing and Consultancy

1	Total T&C Collections from January 2021 to December 2021	Rs. 2,93,79,678
2	Total Number of T&C Jobs from January 2021 to December 2021	838

Conferences and Workshops Organised

Department of Chemistry

Sl No.	Title of the Event	Coordinator/ Co-Coordinator (as in the Event brochure)	Held during	Name of the Chief Guest/s, Keynote Speaker, etc. with affiliation
1	Five-Day National E-Workshop on Advanced Materials: Properties and Applications (AMPA-2021)	Dr. A. Chitharanjan Hegde, Dr. U Kamachi Mudali & Dr. Liju Elias	1-5 March 2021	Prof. N. Munichandraiah (IISc Bangalore); Prof. Ranga Rao (IIT Madras); Prof. V. S. Raja (IIT Bombay); Prof. Ch. Subrahmanyam (IIT Hyderabad); Dr. Rama Kant (University of Delhi); Dr. Siddhartha Das (IIT Kharagpur); Dr. S. Balakumar (University of Madras); Dr. Ch. Jagadeeswara Rao (IGCAR, Kalpakkam, Tamil Nadu); Dr. Mukul Pradhan (NIT Warangal); Dr. J. Manjanna (RC University, Belagavi).

2	E-workshop on Advancements in the Molecular World: Materials and Catalysis-2021 (AMWMC-2021)	Dr. Saikat Dutta and Dr. Sib Sankar Mal	15-19 February 2021	Dr. Anukul Jana (TIFR Hyderabad); Dr. Prasenjit Mal (NISER, Bhuvneshwar); Dr. Tarun K Panda (IIT Hyderabad); Dr. Paresh Nath Chatterjee (NIT Meghalaya); Dr. Abhishek Banerjee (VNIT Nagpur); Dr. Debabrata Maiti (IIT Bombay); Dr. Arunabha Thakur (Jadavpur University); Dr. G. K. Nagaraja (Mangalore University); Dr. Akkattu T Biju (IISC Bangalore); Dr. Gopal Das (IIT Guwahati); Dr. Subhas Chandra Pan (IIT Guwahati); Dr. Debaprasad Shee (IIT Hyderabad); Dr. Chandi Malakar (NIT Manipur)
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Department of Civil Engineering

SI No.	Title of the Event	Coordinator/ Co-Coordinator (as in the Event brochure)	Held during	Name of the Chief Guest/s, Keynote Speaker, etc. with affiliation
1	ATAL Online Faculty Development Programme “India’s Strategic Transport Infrastructure Development Projects and Programs”	Dr. Suresha S.N.	16-20 August 2021	Dr. Veeraraghavan (IITM); Er. T.R. Lokesh (Executive Director, Infra Support Engineering Consultants Pvt. Ltd., Bangalore)
2	International Conference on Civil Engineering for a Disaster Resilient Society (VCDRR 2021)	Dr. Sreevalsa Kolathayar (Organising Chair)	15-20 March 2021	Dr. R.K. Bhandari (INAE); Dr. Dilanthi Amaratunga, (University of Huddersfield, UK); Dr. Chian Siau Chen, (Darren National University of Singapore)
3	Case Histories in Geotechnical and Geological Engineering Theory to Practice	Dr. Sridhar G. and Dr. Vinoth Srinivasan	25-26 March 2021	Dr. G.L. Sivakumar Babu (IISc); Dr. D.T. Bergado (Emeritus Professor, AIT Thailand); Dr. R. Shankar (Retd. Professor of Geology, Mangalore University); Dr. B.C. Prabhakar (Bangalore University).
4	Five days Online Faculty Development Program (FDP) On Recent Advances in Construction and Demolition Waste Management	Dr. B. Manu and Dr. Raviraj H.M. (Coordinators)	22-26 February 2021	Dr. Pradeep Kumar Gautam (NIT Meghalaya), Dr. Suman Saha (NIT Calicut), Dr. Aneetha (NIT Warangal)

	Five Day National e-Workshop on “Key Challenges and Options for Environmental Management”	Dr. Arun Kumar Thalla and Dr. Devatha C.P.	15-19 March 2021	Dr. A. Gangagni Rao (Indian Institute of Chemical Technology); Dr. Sunil Kumar (NEERI, Nagpur); Dr. Pramod Kumar (IIT Roorkee); Dr. Manoj Kumar Tiwari (IIT Kharagpur); Dr. Selvaraju Ramasamy (IIT Guwahati); T.V. Suresh Kumar (Dredging Corporation of India Ltd.); Shri Gangadhar R. Dontireddy (Blue Drop Enviro Pvt. Ltd.); Shri Sagar Apte (EcoSense Watertech); Dr. Garima Kaushik (Central University of Rajasthan); Dr. Singaram Jayanthi (GCT Coimbatore); Dr. A.D. Prasad (NIT Raipur)
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Department of Computer Science & Engineering

Sl No.	Title of the Event	Coordinator/Co-Coordinator (as in the Event brochure)	Held during
1	Faculty Development Programme (FDP) on “Entrepreneurship Development”	Dr. Alwyn Roshan Pais, Co-coordinators: Dr. P. Santhi Thilagam, Mr. Mahendra Pratap Singh.	15-27 February 2021
2	Serverless To sErve moRe at Scale (STEERS 2021) held with 21st IEEE/ACM CCGrid 2021. Melbourne, Australia.	Dr. Sourav Kanti Addya	10-13 May 2021

3	The Second International Workshop on, Fog Networks: The Next Generation Cellular Communication Systems, held with IEEE ANTS 2021, Hyderabad, India,	Dr. Sourav Kanti Addya	13-16 December 2021
4	Workshop on Recent Cutting Edge Technologies in Computing	Dr. Sourav Kanti Addya	29 October – 2 November 2021

Department of Electronics and Communication Engineering

Sl No.	Title of the Event	Coordinator/ Co-coordinator	Held during	Name of the chief guest/s, Keynote speaker, etc with affiliation
1	Online AICTE-ATAL Faculty Development Programme on "Photonics"	Dr. Muralidhar Kulkarni, Dr. Mandeep Singh	01-05 February 2021	Dr. Niranjana U.C. (Director of Research & Training, Manipal Dot Net Pvt. Ltd); Dr. Venu G. Achanta (TIFR, Mumbai); Dr. U.K. Tiwari (CSIR-CSIO Chandigarh); Dr. H.S. Jattana (SCL – ISRO); Dr. T. Srinivas (IISc Bangalore), Mr. Sadanand Bhatt (Anritsu India Pvt. Ltd.), Mr. N. Srinath (Anritsu India Pvt. Ltd.), Mr. Madhukar Tripathi (Anritsu India Pvt. Ltd.), Dr. Om Prakash (RRCAT–Indore), Dr. S.K. Raghuwanshi (IIT Dhanbad) Mr. Ankush Sharma (CADFEM India)

2	Online Five-Day Workshop on “Machine Learning and Applications”	Dr. Raghavendra B.S., Dr. A.V. Narasimhadhan	22-26, February 2021	Dr. Ashok Rao (NIE-MC, Mysore); Dr. Arulalan Rajan (Formerly Asst. Prof, ECE, NITK Surathkal, Faculty, Proficiency, CCE, IISc Bangalore); Dr. Prathosh A.P. (IIT Delhi); Dr. Sharath (IISc Bangalore); Sahil Bhandary (IISc Bangalore); Dr. Thirumulanathan (IIT Kanpur); Dr. Sandesh Kamath (IIT Hyderabad); Dr. Satya Kumar (Samsung R&D India, Bangalore); Dr. Uma Ranjan (IISc Bangalore).
3	Online One-Day Webinar on “Quantum Computing”	Dr. Muralidhar Kulkarni, Dr. Mandeep Singh	18 June 2021	Mr. Nikhil Mitaliya (Team Lead- Application Engineer at Tektronix)
4	Online Summer School Workshop on “Machine and Deep Learning for Remote Sensing Applications”	Dr. Shyam Lal, Dr. Aparna P., Dr. Ramesh H, (Dept. of Water Resources and Ocean Engineering, NITK)	05-16 July 2021	Dr. P.G. Diwakar (ISRO-HQ, Bangalore); Dr. Avik Bhattacharya (IITB Mumbai), Prof. B.S. Daya Sagar (ISI Bangalore), Dr. C. Sudhakar Reddy (ISRO, Hyderabad), Dr. Anil Kumar (ISRO Dehradun); Er. Nagajothi Kannan (ISRO Bangalore); Dr. Biplab Banerjee (IITB Mumbai), Dr. Alok Bhardwaj (IIT Roorkee),

				Dr. Rama Rao Nidamanuri (IIST, Trivandrum, Kerala), Dr. Saroj K. Meher (ISI, Bangalore), Mr. Ujaval Gandhi (Founder, Spatial Thoughts, Bangalore), Dr. Uttam Kumar (IIIT Bangalore), Er. Ujjwal Kumar Gupta (Scientist-SD, SAC (ISRO Ahmedabad)
5	Online IEEE Workshop on “Advances in Nanophotonic devices & Sensors” (2nd IEEE WANS - 2021)	Dr. Mandeep Singh, Dr. Muralidhar Kulkarni	04-08 October 2021	Dr. Venu Gopal Achanta (Director, CSIR- NPL, New Delhi), Dr. Niranjana U.C. (Director of Research & Training, Manipal Dot Net Pvt. Ltd.)
6	Online Faculty Development Programme on “Recent Trends in Free Space Optics and its Applications (RFA-2021)”	Dr. Prabu K, Dr. Shyam Lal, Dr. Sandeep Kumar	04-08 October 2021	Dr. Swaminathan R. Indian Institute of Technology, Indore
7	Online Faculty Development Programme on “Applications of Artificial Intelligence in Digital Histopathology”	Dr. Shyam Lal, Dr. Sandeep Kumar, Dr. Prabu K.	13-17 December 2021	Dr. Amit Sethi (IITB, Mumbai); Dr. Jyoti Kini (Dept. of Pathology, KMC Mangalore, MAHE, Manipal); Dr. K.B. Vatsala (Dept. of Pathology, KMC Mangalore, MAHE, Manipal); Dr. Arulalan Rajan (Formerly with NITK Surathkal); Mr. Rajesh Ranjan (Catalyst Biotech, Mumbai)

8	Wearables and Machine learning in Epilepsy - Online lecture series on Challenges in Biomedical Research	Dr. Sumam David, Dr. Deepu Vijayasenan	31 December 2021	Dr Zulfi Haneef, MBBS, MD (Associate Professor in Neurology, Director, Neurophysiology laboratory, Director, Epilepsy Centers of Excellence, Houston, Texas)
9	Machine Learning for flow cytometry- Online lecture series on Challenges in Biomedical Research	Dr. Sumam David, Dr. Deepu Vijayasenan	07 January 2022	Dr. Thiagarajan Perumal MD (Professor of Medicine and Pathology Baylor College of Medicine, Director, Transfusion Service and Hematology Laboratory, Houston, Texas)
10	Challenges of using Machine Learning to Predict Outcomes in Neurological Diseases- Online lecture series on Challenges in Biomedical Research	Dr. Sumam David, Dr. Deepu Vijayasenan	10 January 2022	Dr Pitchaiah Mandava MD, PhD MSEE (Professor, Baylor College of Medicine Chief of Neurology at Michael E. DeBakey VA Medical Center, Houston, Texas)

Department of Information Technology

SI No.	Title of the Event	Coordinator/Co-Coordinator (as in the Event brochure)	Held during	Name of the Chief Guest/s, Keynote Speaker, etc. with affiliation
1	NITK National level Hackathon "HackVerse 2.0"	Dr. Sowmya Kamath S., Dr. Suprabha K.R. (School of Management) and Dr. Anand Kumar M.	27-28 February 2021	Mr. Naveen Yeri, (Senior Vice President, Head of Enterprise Analytics and Data Science, Wells Fargo India)
2.	DST sponsored Technology based Entrepreneurship Development Program (TEDP 2021)	Dr. Sowmya Kamath S. and Dr. Suprabha K.R. (School of Management)	15 February- 26 March 2021	Dr. M. Vasudeva Rao (Emeritus Professor, T.A. Pai Institute of Management, Manipal)

3.	DST sponsored Women's Entrepreneurship Development Program (WEDP 2021)	Dr. Suprabha K.R. (School of Management) and Dr. Sowmya Kamath S.	01-26 February 2021	Dr. Srivardhini Jha, (IIM Bangalore)
4.	"Dravidian-CodeMix-HASOC2021" Shared task at FIRE2021 International Conference (online)"	Dr. Anand Kumar M. (Jointly with National University of Ireland)	13-17 December 2021	-
5.	DravidianLangTech-2021 The First Workshop on Speech and Language Technologies for Dravidian Languages	Dr. Anand Kumar M (Jointly with National University of Ireland)	19-23 April 2021	Dr. John P McCrae (Insight Centre for Data Analytics and ADAPT centre at the National University of Ireland Galway) Dr. Vasu Renganathan (South Asia Studies Department, University of Pennsylvania)
6.	5-Day AICTE -ATAL Sponsored Online Workshop on "Quantum Computing and Quantum Cryptography"	Dr. Bhawana Rudra	07-11 June 2021	Dr. Dedasis Das (IIT-Jodhpur); Dr. Harish Sahu (DRDO Delhi); Dr. Aswath Babu (IIIT Darwad); Dr. Nirman Ganguly (BITS-Hyderabad); Dr. Indranil Chakraborty (IIIT-Hyderabad)
7.	5-Day TEQIP sponsored workshop on Applications of Algorithms to Security	Dr. Bhawana Rudra	15-19 March 2021	Dr. Damodar Reddy (NITGOA); Dr. Debasis Das (IIT Jodhpur)

Department of Mathematical and Computational Sciences

SI No.	Title of the Event	Coordinator/ Co-Coordinator	Held during	Name of the Chief Guest/s, Keynote Speaker, etc. with affiliation
1	Expert Lecture on Readiness for Campus Recruitment	Dr. Pushparaj Shetty D.	8 June 2021	Mr. Rudramuni B. (Formerly Vice President, Dell R&D, India)

Department of Mechanical Engineering

S.No.	Title of the event	Coordinator/ Co-Coordinator	Held During	Name of the Chief guest, Keynote Speaker etc with affiliation
1	Essentials of Salient Subjects in Thermal Engineering (5-Day workshop under twinning activities)	Dr. Arumuga Perumal D., Dr. Gnanasekaran N.	15-19 March 2021	Dr. Ranjan Das (IIT Ropar); Dr. Pankaj Kalita (IIT Guwahati); Dr. Satya Sekhar B. (IIT Jammu); Dr. Chandramohan V.P. (NIT Warangal); Dr. Sendhil Kumar N. (NIT Puducherry); Dr. Ravi Kumar Peetala (VNIT, Nagpur); Dr. Vettivel S.C. (Chandigarh College of Engineering and Technology, Punjab)
2	One-week short-term course on Experimental and Numerical Approaches to Two-Phase Heat Transfer	Dr. A. Sathyabhama	27-31 December 2021	Dr. Aravind Pattamatta (IIT Madras)
3	5-Day workshop under TEQIP on Fundamentals of	Dr. Khyati Verma, Dr. Suvin	08-12 February 2021	Dr. Piyush Gaur (Hindustan Institute of Technology and Science, Chennai);

	the core subjects in Mechanical Engineering (FCSME - 2020)			Dr. Vishwanath Managuli (Manipal Institute of Technology, Karnataka); Dr. Kishore Kumar Gajrani, (IIITDM Kancheepuram, Chennai); Dr. Deepak G. Dileep, (Mar Baselios College of Engineering and Technology, Trivandrum); Naveen Kumar (Heavy Engineering Corporation, Ranchi); Shaik Mohammad Riyaz (Pedestrian Safety Engineer, Renault Nissan Technology Business Centre India)
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Department of Mining Engineering

S.No.	Title of the event	Coordinator/Co-Coordinator	Held During	Name of the Chief guest, Keynote Speaker, etc.
1.	FDP on Planning of Surface Mining Projects	Dr. S.K. Reddy	23-27 August 2021	Shri Chandrashekar, Chief Guest (Director-Operations Singareni Collieries Company Ltd.)

School of Management

Sl No.	Title of the Event	Coordinator/Co-Coordinator (as in the Event brochure)	Held on/during	Name of the Chief Guest/s, Key note Speaker, etc. with affiliation
1	Expert Lectures on Cyber security for business leaders and managers	Dr. S. Pavan Kumar	15-20 March 2021	Mr. Vinaya Satyanarayana, Freelance Management Consultant, Bangalore

2	Expert Lecture on The Advent of Cryptocurrency	Dr. Shashikantha Koudur	16 October 2021	Mr. Dharnesh Krishna Koganti, Director (Sales & Distribution), Livaah Innovations, Pvt.Ltd.
3	Expert Lecture on High Impact B2B Selling Skills – Science to Selling- Part 1	Dr. Rajesh Acharya H.	23 October 2021	Mr. Srinivas Somayajula, Director, Learning Horizons, Bangalore
4	Expert Lecture on High Impact B2B Selling Skills – Science to Selling- Part 2	Dr. Rajesh Acharya H.	30 October 2021	Mr. Srinivas Somayajula Director, Learning Horizons, Bangalore
5	Expert Lecture on Techno Management and Business Development Projects’	Dr. Rajesh Acharya H.	3 November 2021	Whizzcorps
6	Expert Lecture on Data Analytics	Dr. Pradyot Ranjan Jena	13 November 2021	Dr. Chakradhar Panda, Director, Data Science, Publicisis Sapient
7	Expert Lecture on Investor Education’	Dr. Rashmi Uchil	13 November 2021	LOTUS KNOWLWEALTH (LKW)
8	Expert Lecture on Corporate Communication	Dr. Shashikantha Koudur	31 December 2021	Dr. Rakesh Godhwani, Founder, School of Meaningful Experience, Bangalore

Faculty Achievements

Department of Chemical Engineering

1. Dr. Hari Mahalingam of the Department of Chemical Engineering was awarded the best oral presentation award during the international conference on advances in sustainable research for energy and environmental management (ASREEM-2021) at SVNIT Surat during August 6–8, 2021

Department of Chemistry

1. Dr. D. Krishna Bhat secured a position in the list of top 2% scientists of the world for career long impact (Rank: 230963) as well as for the year 2020 (Rank: 67938). This list was prepared by the scientists of Stanford University, USA in collaboration with Elsevier Publications, London, UK. Prof. Bhat was also awarded with a certificate of appreciation as a highly cited author by the Royal Society of Chemistry, London, UK.
2. Dr. Arun Isloor secured a position in the list of top 2% scientists of the world as surveyed by Stanford University (October 2021). Prof. Isloor also received the Best Teacher award (2nd position in Science at the National level) by Academisthan (A Non-profit Organization), among 10000+ nominations (September 2021).

Department of Civil Engineering

1. Dr. Sreevalsa Kolathayar of the Department of Civil Engineering was Featured in Geostrata Magazine of American Society of Civil Engineers (ASCE) Geo-Institute in 2021.
2. Dr. Sreevalsa Kolathayar of the Department of Civil Engineering published a book titled "Civil Engineering for Disaster Risk Reduction" (Springer). Link: <https://link.springer.com/book/10.1007/978-981-16-5312-4>
3. Dr. Mattur C. Narasimhan of the Department of Civil Engineering was one of the four editors of a book titled "Sustainability Trends and Challenges in Civil Engineering: Select Proceedings of CTCS-2020" (Springer). Link: <https://doi.org/10.1007/978-981-16-2826-9>
4. Dr. Mithun Mohan of the Department of Civil Engineering delivered a plenary lecture during the international conference titled "NEW HORIZONS of Transport and Communications 2021" organized by the University of East Sarajevo, Bosnia, and Herzegovina.
5. Dr. Basavaraju Manu delivered a keynote lecture in AICTE-ISTE sponsored online Induction / Refresher Program 2021-22 on "Pollution Control & Remediation - A Geo Environmental Approach" held during 29 December 2021 to 4 January 2022, in Civil Engineering Department of MCE Hassan.
6. Dr. Varghese George was awarded the IGBC-CII Accreditation for Faculty in Green Building by Indian Green Building Council and the Confederation of Indian Industries on 6 August 2021.
7. Dr. Varghese George was awarded the Best Reviewer award for review of Research Papers for Scopus Springer International Conference CTCS, organized by NMAMIT, NITTE on 20 November 2021.

8. Dr. B.M. Sunil, Dr. B. Manu, Dr. Raviraj H.M. published a book titled “Two Day Online International Conference Green Highway Construction A Sustainable Approach”; the book was published by Selfypage Developers Pvt. Ltd. (ISBN number of 978-1954461-543) in March 2021.
9. Dr. Subhash C. Yaragal is appointed as a nominee of VTU Belagavi to the “IQAC Member” of PDACE, Kalaburagi (Autonomous) for a period of three years from 31 January 2022 to 30 January 2025.
10. Dr. Subhash C. Yaragal delivered a keynote lecture on “Value added materials for sustainable concrete construction” during a Five-day Faculty Development Programme at Jyothi Institute of Technology, Bangalore on 30 December 2021.

Department of Computer Science and Engineering

1. Dr. P. Santhi Thilagam served as a Reviewer of Curriculum and syllabus of B.E/M.Tech programs for the department of Computer Science & Engineering of Siddaganga Institute of Technology Tumkur, Karnataka on 6 March 2021.
2. Dr. P. Santhi Thilagam served as an External Academic Auditor for the Department of Computer Science & Engineering of Karunya Institute of Technology and Sciences, Coimbatore, Tamil Nadu on 20 March 2021.
3. Dr. Mahendra Pratap Singh was awarded the Protsahan Award from IEEE ComSoc Bangalore in recognition of his contribution to research publications in conferences, and journals during January 2020-Sept 2021.
4. Dr. Mohit P. Tahiliani was awarded the ‘Outstanding Young Professional Volunteer Award’ from IEEE Bangalore Section in January 2021
5. Dr. Biswajit R. Bhowmik of the Department of Computer Science and Engineering has been awarded
 - The Monetary Prize of Rs. 10000/- at the 2021 IEEE 18th India Council International Conference (IEEE INDICON 2021) 19-21 December 2021, Guwahati.
 - The Best Paper Award at the 2021 IEEE 18th India Council International Conference (IEEE INDICON 2021) 19-21 December 2021, Guwahati.
 - Start-up Research Grant Award sponsored by Science and Engineering Research Board (SERB), Department of Science and Technology (DST).

6. Dr. Sourav Kanti Addya received the Best Paper Award (Poster track) in the 13th International Conference on Communication Systems & Networks (COMSNETS 2021), Bangalore.

Department of Electrical and Electronics Engineering

1. Dr. R. Kalpana delivered a Keynote lecture on “Battery Management System for Electric Vehicles” 4th International Conference on Systems, Energy and Environment (ICSEE 2021) held at Govt. College of Engineering, Kannur, during 22-23 January 2021.
2. Dr. Dattatraya N. Gaonkar delivered a Keynote address in 5-day workshop on “Applications of AI and ML in Power and Electronics Engineering Challenges” organized by IEEE Power & Energy Society of RVCE in association with the Department of EEE and ECE, R.V. College of Engineering Bangalore, Karnataka from 21-25 September 2021
3. Dr. Dattatraya N. Gaonkar delivered a Keynote address in AICTE sponsored one-week Short-Term Training Programme on “Application of Machine Learning and Artificial Intelligence Techniques for Control of Future Grid” during 02-07 August 2021, organized by department of E&E, NMAM Institute of Technology, Nitte, Udupi District.
4. Dr. Ravi Raushan contributed as a session–chair during the virtual International Conference on Advances in Communication & Computing Technology (ICACCT-2021) during 28-29, December 2021.
5. Dr. B. Venkatesaperumal received the Award for Research Publications (ARP) by Vision Group on Science and Technology, Government of Karnataka, on 18 September 2021.
6. Dr. B. Venkatesaperumal was recognised as a Fellow of the Institute of Electronics and Telecommunication (IETE) on 26 November 2021.
7. Dr. B. Venkatesaperumal was recognised as a Fellow of the Institute of Engineers (India) on 02 September 2021
8. Dr. Prajof P. was awarded Young Researcher and Best Paper for the paper titled “A Novel PR Controller with Improved Performance for Single Phase UPS Inverter” in ICNTE 2021 organized by Fr. C. Rodrigues Institute of Technology, Vashi, in association with IEEE and IAS during 15-16 January 2021.
9. Dr. Prajof P. delivered a Keynote lecture on “Research Scope and Challenges in EV Chargers” on 11 September 2021 for National Symposium and Research Colloquium, organized by IEEE Kerala, in association with Govt. Engineering College Kannur, Kerala.

10. Dr. Gururaj S. Punekar, of the Department of Electrical and Electronics Engineering was invited as Expert member of reviewing of autonomous scheme and syllabus of Electrical & Electronics Engineering Board MVJ College of Engineering, Bangalore, on 29 November 2021.

Department of Information Technology

1. Dr. G. Ram Mohana Reddy delivered Keynote Talk on “AI-based Real-Time Data Analytics in Smart Application Environments”, at the 5th Conference on Information and Communication Technology (CICT-2021), IIITDM Kurnool, 10-12 December 2021.
2. Dr. Sowmya Kamath S. received the Best paper award for “Deep Learning based detection of Diabetic Retinopathy from Inexpensive Fundus Imaging Techniques”, at the 7th International Conference on Electronics, Computing and Communication Technologies (IEEE CONECCT 2021), held during 9-11 July 2021, organised by IEEE Bangalore Section
3. Dr. Sowmya Kamath S. received the Best paper award for “Sketch-based Image Retrieval using Convolutional Neural Networks based on Feature Adaptation and Relevance Feedback”, at the 6th International Conference on Emerging Applications of Information Technology (EAIT), 25-27 February 2021, organised by Computer Society of India (Kolkata chapter).
4. Dr. Anand Kumar and his team won first place in the shared task “CheckThat! lab at CLEF 2021: Fake news detection of news articles” at Conference and Labs of the Evaluation Forum Bucharest, Romania, 21-24 September 2021.

Department of Mathematical and Computational Sciences

1. Dr. Pushparaj Shetty D. was the Chair IEEE Mangalore Subsection for the year 2021.
2. Dr. R Madhusudan delivered a Keynote address on 10 June 2021 at a five-day workshop on “Cyber Security and Cyber Forensics”, School of Computer Science and Engineering, VIT Vellore

Department of Metallurgical and Material Engineering

Dr. S. Anandhan

1. Invited as an expert in 2021 for evaluation and assessment of proposals received for NRDC National Innovation Award 2020.
2. Invited as a referee to evaluate research proposals submitted for funded projects to the Board of Research in Nuclear Sciences (BRNS).

3. Delivered a Keynote address titled 'Enhancement of Dielectric and Piezoelectric Properties of PVDF nanofibers for Energy Harvesting Application: Role of Nanofillers' in International Conference on 'Advancements in Polymeric Materials APM-2021', CIPET-Bhubaneswar, in March 2021.
4. Has been admitted to the prestigious Fellowship of the Royal Society of Chemistry (FRSC), UK on 7 September 2021.

Department of Mining Engineering

1. Dr. Ch. S.N. Murthy was appointed as a member of BoS, Bikaner University, Rajasthan in July 2021 for 3 Years.
2. Dr. M. Aruna was appointed as a member of BoS, JNTUK, Kakinada, Andhra Pradesh for the period of 2021-2024.
3. Dr. Ch. S.N. Murthy published a book entitled "Rock Indentation: Experiments and Analyses" brought out by CRC Press, Taylor and Francis in December 2021.

School of Management

1. Dr. S. Pavan Kumar was awarded the Best Paper Award in the Track "Entrepreneurship and Engineering Innovation" for the Research Paper "Exploring the Relationship Between Students' Inclination to Sports and their Entrepreneurial Intentions" in the Eighth International Conference on Transformations in Engineering Education (ICTIEE 2021), organized by IUCEE, held online during 8 – 10 January 2021.
2. Dr. Shashikantha Koudur delivered a public lecture on "Dasa Sahitya and Communities: Iconisation of Purandaradasa in the 20th Century", in the aegis of the Centre of Excellence for Studies in Classical Kannada, Central Institute of Indian Languages (Ministry of Education), Mysore, on 19 August 2021.

Central Library, NITK

Dr. Mallikarjun Angadi, Librarian, was awarded the Global Librarians' Award 2021 on 29 August 2021 by AKS Education for excellence in competence and remarkable work and contribution in library services.

Mr. Iranna M. Shettar, Assistant Librarian, was awarded Best Young Librarian Award 2021 on 28 August 2021 by Vertex Research & Technology.

Students Achievements

Department of Civil Engineering

1. Ms. Sudeepthi Nalla of VIII Semester BTech was awarded the “Best Cadet NCC (SW)”. She also received the Silver Medal in the Inter-NITK Chess tournament (Group). Further, she also took part in the DAAD WISE Virtual Summer Academy (2021) and Indian Academy of Sciences (2021).
2. Mr. Shashank S R of VIII Sem BTech was awarded the Best NCC Cadet (Senior Division) of the academic year 2021-2022. He represented NITK Surathkal in Inter NIT Yoga held at NIT Silchar. He also won the First Place in quiz conducted by 9 Kerala Naval Unit NCC - NIT Calicut; Second Place in Science Journalism (Discovery of Water on Mars) - Indian Institute of Science, Bangalore and was the Finalist at an Innovation Summit held at Indian Institute of Science, Bangalore.
3. Mr. Pavan N of VIII Sem BTech received the First Place in “Firing” organized by 2 KAR ENGR COY NCC.

Department of Chemical Engineering

1. Sunaina S Patil, Ph.D. scholar of the Department received the Best Paper Award, entitled “Negative effect of Niobium doped ceria on soot oxidation activity” in the International Chemical Engineering Conference 2021, organized by the Department of Chemical Engineering, Dr. B.R. Ambedkar National Institute of Technology, Jalandhar.
2. Minimol M., a research scholar working with the guidance of Dr. M.B. Saidutta and Dr. Vidya Shetty K., was awarded the Best Oral Presentation Award under Mineral Processing during 26–30 December 2021 at the Indian Chemical Engineering Congress & 74th Annual Session of Chemical Engineers (CHEMCON 2021).

Department of Computer Science and Engineering

1. Mr. Gagan N, an M.Tech (Research) Student of the Department received the Best Paper Award at the 2021 IEEE 18th India Council International Conference (IEEE INDICON 2021) held during 19-21 December 2021, in Guwahati.
2. Arpana Chakma, a PG student, received the Best Paper Award (Poster track) at the 13th International Conference on Communication Systems & Networks (COMSNETS 2021), held at Bangalore.

3. Nithesh Naik, a Ph.D Scholar, received the Best Paper Award at the 2021 Springer 3rd International Conference on Machine Learning, Image Processing, Network Security and Data Science (MIND-2021) during 11-12 December 2021, at NIT Raipur.

Department of Electronics and Communication Engineering

1. Deeksha M.S., a student of Final year BTech ECE and NITK IEEE Chair, received the prestigious Shri Prahlad P. Chhabria best outgoing female student award for the year 2021 by the Hope Foundation in association with the IEEE India Council and Women in Engineering Affinity Group. The award comprised a prize of Rs.1,25,000/-, a medal and a citation sponsored by the Foundation.

Department of Electrical and Electronics Engineering

1. Aditya Chandrasekar (181EE103), Dhanush D. Shekar (181EE217) and Abhishek C. Hiremath (181EE101), students of the VIII Semester, published a journal paper titled "Detection of arrhythmia from electrocardiogram signals using a novel gaussian assisted signal smoothing and pattern recognition" in Biomedical Signal Processing and Control, Vol. 73, p.103469, 2021, DOI: <https://doi.org/10.1016/j.bspc.2021.103469> with the guidance of Dr. C.M.C. Krishnan, Assistant Professor in the Department.
2. Suraj Kulkarni (181EE248) and Nikhil Nair (181EE131), students of the VIII Semester, participated in the finals of e-Yantra Robotics Competition (eYRC 2020-21) held during 30 March to 3 April 2021 online. This team has been selected as one of 7 finalists out of 465 teams in the Sahayak Bot theme and was placed at the 1st position in this theme.

Following students got the prestigious internship offers abroad:

Name and Register No. of the student	Company/University
Adithya Madhusoodanan (181EE202)	Dtime.AI, Data science associate, London
Anshuman Sinha (181EE209)	European Bioinformatics Institute, Research Intern, Cambridge, UK
Fidha Palamthalakkal (181EE218)	Nimai DigiEX, investment banking intern, Dubai
Ritesh Chaudhary (181EE236)	Xupoli Technologies Inc., USA
Sarath Edaparambil (181EE240)	Project Assistant, Zentech Technical Services Inc., United Arab Emirates

Department of Information Technology

1. OxyHeal, a startup co-founded by a B.Tech. final year student, Manash Sharma, received funding of Rs. 9.3 Lakh under DST Nidhi Prayaas Scheme.
2. Veena Mayya, fourth year PhD student received IEEE ComSoc Protsahan Award in recognition of the exceptional research contributions in her journal publication.

Financial Support for Students Attending Conference Abroad

In order to increase citations of research articles published by our faculty members, a provision is made to use the fund under “Students Attending Conference- Abroad” to publish research articles in high-quality open-access journals. Sixteen faculty members have utilized the financial support to publish their research articles in high-quality open access journals. The total amount spent for the purpose is Rs. 7,20,261/-. In addition, two students have utilized a sum of Rs. 61,462/- to attend and present research papers under the same head at the conference.

Projects/Consultancies Sanctioned

Department of Chemical Engineering				
Project Title	Investigator(s)	Funding Agency	Sanctioned Amount (in Lakh)	Duration
Chito-oligosaccharides for medical and food application.	Dr. Keyur Raval	79 Impact Alumni funding	3.8	February 2021 to August 2022
Integrated Photo catalytic and membrane bioreactor process for effective removal of emerging contaminants and Disinfection.	Dr. Amrithanshu Shriwastav, IIT Bombay (Lead); Dr. Vidya Shetty K., NITK Surathkal; Dr. Swatantara Pratap Singh, IIT Bombay; Dr. Pradip Kalbar, IIT Bombay.	DST, Water Technology Initiative	Total: 72.32 NITK: 22.8	2021-24

Department of Chemistry				
Design and Development of Moisture-Resistant Dopant-free Hole-Transporting Materials for Perovskite Solar Cells	Dr. Udaya Kumar D (PI) Dr. Piyasiri Ekanayake and Dr. Pasit Pakawatpanurut	SERB, DST, India under ASEAN- India Collaborative R&D scheme	33.52	Aug 2021 to July 2023
Synthesis of azulene-porphyrin conjugates and their exploration as anti-Kasha-active fluorophores	Dr. Vijayendra S. Shetti	DST-SERB (under Core-Research Grant Scheme)	29.64	Nov 2021 to Nov 2024
Synthesis of Carbo- and Heterocycle Based Novel Hybrid Polycycles and their Applications	Dr. Beneesh P.B.	DST-SERB (under Core-Research Grant Scheme)	34.91	Nov 2021 to Nov 2024
Olefin-Linked Fluorescence Enhanced Covalent Organic Frameworks	Dr. Lakshmi Vellanki	DST-SERB	26.78	Dec 2021 to Dec 2023
Food Waste to Hydrogen Using Aqueous Phase Reforming	Dr. Saikat Dutta	Indian Subsidiary Tecnimont Private Limited, Mumbai through Maire Tecnimont S.p.A. Milan, Italy	6.8	Nov 2021 to Dec 2022
Department of Civil Engineering				
Strength, serviceability and hazard assessment of Global Vipassana Pagoda considering as built information and in - situ material properties	Dr. Pavan G.S. (PI), Dr. Prashanth M.H.(Co-PI), Dr. Sreevalsa Kolathayar (Co-PI)	Global Vipassana Foundation, Mumbai	18.5	June 2021 – May 2024
Development of Trip Generation Manual for Indian Cities	Dr. Mithun Mohan (Nodal PI)	CSIR-CRRI	7.97	December 2021- June 2022
Interaction of various environmental factors on the fracturing behavior and damage mechanism in rocks	Dr. Vinoth S	Science & Engineering Research Board (SERB), GoI	32.64	2021-2023

Department of Computer Science & Engineering

Proof of Concept (v2) of New IP.	Dr. Mohit P. Tahiliani	Futurewei Technologies, Inc.	USD 40000	January 2022 to January 2023
Proof of Concept (v1) of New IP.	Dr. Mohit P. Tahiliani	Futurewei Technologies, Inc.	USD 20000	March 2021 to October 2021
Queue Management and Traffic scheduling for efficient utilization of DPUs.	Dr. Mohit P. Tahiliani	NVIDIA Academic Hardware Grant Program.	USD 1500	October 2021 to October 2022
DLT based Platform for Warranty of Home Appliances.	PI: Dr. Mohit P. Tahiliani Co-ordinator: Dr. K.V. Gangadharan	Robert Bosch Engineering and Business Solutions Pvt. Ltd..	8.26	January 2021 to April 2021
Logical Correctness for Batteryless Internet of Things.	Dr. Biswajit R. Bhowmik	DST-SERB	20	January 2021 to January 2024

Department of Electrical and Electronics Engineering

Smart Electric Vehicle Supply Equipment with improved Reconfigurability, Economic, Availability and Performance (REAP)	Chief Investigator: Dr. B. Dastagiri Reddy Co-investigators: Dr. V. Vignesh Kumar, Dr. Y Suresh, Dr. B.V. Perumal, Dr. Arun M.	DST/SERB/ CRG	60	April 2021 to April 2024
An Affordable Therapeutic Solution for Rehabilitation of Cerebral Palsy Children with Crouch Gait	Chief-Investigator: Dr. Krishnan C.M.C., Co-investigators: Dr. Deepu Vijayasenan (Dept of E&C), Dr. Ranjith M. (Dept. ME), Dr. Sumam David (Dept of E&C), Dr. Sheron Figarado (School of Electrical Sciences, IIT Goa), Dr. Unnikrishnan B. (Department of Community Medicine, KMC Hospital Mangalore)	DST-SERB	59.75	August 2021 to July 2024

Development of Integrated Health Monitoring Tools for Solar PV inverters	Chief-Investigator: Dr. Md Waseem Ahmad	DST-SERB	20.57	December 2021 to December 2023
Department of Electronics and Communication Engineering				
Engineering novel label free multi-layer plasmonic nano-biosensor for DNA hybridization	Dr. Mandeep Singh	Department of Biotechnology (DBT), GoI	57.49	January 2021 to January, 2026
Design and Development of Nanoscale Integrated System Along with Conformal Antenna as Capsule Prototype for Wireless Capsule Endoscopy	Dr. Sandeep Kumar	DST under the Programme of BDTD	74	2021 to 2024
Department of Mathematical and Computational Sciences				
A retinex inspired framework for intensity homogenization contrast upgradation and restoration of satellite and area images	Dr. Jidesh (PI) Dr. Santhosh George	DST-SERB (under Core-Research Grant Scheme)	22.9	March 2021-February 2024
Department of Mechanical Engineering				
Semi-active damping using controllable orifice for four-wheeler automobile	Dr. Hemantha Kumar (PI), Dr. Ranjith Kumar Sahu, Dr. Debashisha Jena (E & E Dept.)	DST-SERB (under Core-Research Grant Scheme)	28.18	November 2021 to November 2025
Design and Development of Semi-Active Prosthetic Knee using cost-effective Magneto Rheological Brake to assist Trans- Femoral Amputees	Dr. Hemantha Kumar (PI), Dr. Arun M.	DST - SEED, Scheme - TIDE	23.98	February 2022 to February 2024
Development of convertible and a cost-effective mechanism for Smart-flower type solar panels	Dr. Saurabh Chandraker (PI) Dr. Parthasarthy	DST-SERB	51.37	July 2021 to July 2023

Design and development of Supercritical carbon dioxide based naturally circulated solar thermal collector	Dr. Ajay Kumar Yadav (PI), Dr. M.R. Ramesh	DST-SERB (under Core-Research Grant Scheme)	23.81	November 2021 to November 2025
Waste Recycling and Circular Economy	Dr Vasudeva Madav (PI), Dr. Ashoke Babu	Maire Tecnimont S.p.A. Italy	35.2	April 2021 to March 2022
Department of Metallurgical and Materials Engineering				
To Study the Effect of Interfacial Heat Flux during Waam on the Micro-Structural, Distortion and Mechanical Properties of Aluminium Alloy	Dr. K. Narayan Prabhu	DST-SERB	19.05	January 2021 to December 2023
Failure Analysis of Utility Boiler (UB-4) tubes of CPP-III Plant	Dr. Subray R. Hegde	MRPL	5	November 2021 (ongoing)
Department of Mining Engineering				
Design of method of working, ultimate pit slope, dump slopes including monitoring of highwall benches, OB dumps and slopes of Naini coal mine, SCCL, Odisha	Dr. K. Ram Chandar	Naini Coal Mine	6.25	2021
Scientific Study for Controlled Blasting in Tummalpenta Limestone Mine	Dr. K. Ram Chandar	M/s. Ultratech Cements Pvt Ltd., Ananthapur, AP	5	2021
Scientific study for stability analysis of benches of Basant Nagar Limestone Mine of M/S. Kesoram Cements	Dr. Sandi Kumar Reddy	M/S. Kesoram Cements	9.5	November 2021 to May 2022
School of Management				
Design of Toys manifest local flora & fauna of the State of Karnataka & Design of Toys to engage people with local culture	Chief-Investigator: Dr. Bijuna C. Mohan; Co-investigator: Dr. K.V. Gangadharan (Dept. of ME)	Ministry of MSME	15	January 2021 to December 2021

Design and development of process and process equipment for Use of Eco-friendly Materials for toy making	Chief-Investigator: Dr. Bijuna C. Mohan; Co-investigator: Dr. K.V. Gangadharan (Dept. of ME)	Ministry of MSME	9	January 2021 to December 2021
Design of suitable packaging to transport the toys using Eco Friendly Materials (upcycling of waste paper)	Chief-Investigator: Dr. Bijuna C. Mohan; Co-investigator: Dr. K.V. Gangadharan (Dept. of ME)	Ministry of MSME	5.62	January 2021 to December 2021
MDP for Supervisory Level Executives of MRPL	Dr. Suprabha K.R. and Dr. Rashmi Uchil	MRPL	5	1-15 March 2021

Centrally Organised Events/Activities

19th Annual Convocation

19th Annual Convocation of the Institute was held on 6 November 2021 on virtual platform. Shri Dharmendra Pradhan, Union Cabinet Minister for Education, Skill Development and Entrepreneurship, was the Chief Guest. In his address, he said that the economic progress is determined by the capacity of research and innovation. He expressed his pleasure about the efforts at implementing NEP 2020 at the institute. Dr. K. Sivan, Secretary, Department of Space, Chairman, Space Commission and Chairman, Indian Space Research Organization (ISRO), was the Guest of Honour. He pointed at the fast-evolving world in the post-pandemic era with challenging areas such as machine learning, artificial intelligence, big data analytics, genetic engineering, space and aeronautics, etc. bigger challenge in the contemporary scenario, he said, was to respond to climate change and the potential natural disasters in the coming times. Mr. Suhas L.Y., an alumnus, was presented with the first honoris causa of the institute for his multifaceted achievements such as winning a silver in Tokyo Paralympics and for his able administration as a District Magistrate of several different districts in UP.



Shri Dharmendra Pradhan



Dr. K. Sivan

A total of 795 students were awarded their B.Tech degrees; 743 students were awarded various postgraduate degrees; 23 students, MTech by research and 120 students were awarded their PhD degrees in the convocation.

Admission Details for UG, PG and PhD programme for the academic year 2021-22

Sl. No.	Programme	Intake	Admissions 2021-22	Male	Female
1	B.Tech	1054	979	777	202
2	M.Tech	981	820	633	187
3	M.Tech (Research)	63	29	20	9
4	MCA	68	64	54	10
5	MBA	90	45	23	22
6	MSc (Physics)	40	34	23	11
7	MSc (Chemistry)	38	37	19	18
8	PhD	188	116 FT-SCH	84	32
			16- FT-NSPON-NSCH	6	10
9	M.Tech (Research) – Others (IR NITK/ER-SPON)	--	12	10	2
10	M.Tech (QIP Poly)	--	1	1	--
11	Ph.D – Others (IR NITK/ ER-SPON/ FT-SPON-NSCH)	--	73	54	19
12	Ph.D (QIP – Poly/Regular)	--	8	7	1
Total		2522	2234	1711	523

International Mother Language Day

International Mother Language Day was celebrated on 21 February by *Hindi Vibhaag* and *Hindi Evam Sanskrit Club*, NITK. This year (Academic year 2020-21), it was conducted in online mode. Events like Quiz Competition (Hindi and Kannada), On the spot/Creative Writing Competition, Open Mic Competition, Essay-writing Competition and Poster-making Competition were held for students

Covid Awareness Programme

A Covid Awareness Programme was arranged on 23 March 2021 in Pavilion of the institute for the benefit of faculty, staff and students. The programme was well attended. On this occasion, Dr. Shrimathi, Resident Medical Officer (RMO) of the institute delivered a talk on Covid Awareness. She dealt on the precautions to be taken, the SOPs and procedure to be followed in case someone is found Covid positive.



Dr. Shrimathi addressing the audience

Yoga Day

Seventh edition of International Day of Yoga was celebrated on 21 June 2021 at the institute with enthusiasm and healthy spirit as per the protocol of *Be with Yoga, be at Home*. All were requested to follow the guidelines and send a few photographs of their yoga sessions done at home. There was good participation with considerable number of staff participating.



Swachata Pakhwada
(1 to 15 September 2021)

On the occasion of the *Swachata Pakhwada*, Swachata Pledge was administered by Director. Deputy Director, Registrar, Deans of the institute were present. More than 300 faculty and staff members were present during the event. A good number of students also participated. More than 500 numbers of sapling and planation of High-CO₂ absorbing plants were planted in the institute premises. On this occasion, online competitions were conducted regarding the Swachata Abhiyan. More than 200 students participated in this event. Cleanliness Awareness in the campus, Beach Clean-up Drive and Plogging run conducted during 1 to 15 September 2021. More than 400 faculty, staff and students participated in this *Pakhwada*.



Kannada Rajyotsava 2021

On 1 November 2021, *Kannada Rajyotsava* was celebrated at the pavilion. Prof. Krishnamurthy P, Principal of Govinada Dasa College, Surathkal, was the chief guest. Nearly 100 people attended the event including Prof. Narendranath S. (Dean, Student Welfare), Dr. Nagamma Patil (Faculty Advisor of *Kannada Vedike Club*), Prof. Ananthanarayana V.S. (formerly Deputy Director), Prof. Jagannath Nayak (formerly Dean, Student Welfare), Sri. K. Ravindranath (Registrar), Prof. Vidya Shetty (Dean, Academic), Prof M.S. Bhat (formerly Dean, Faculty Welfare), Prof. U. Shripathy Acharya (formerly Dean, Research and consultancy), Dr. Hem Prasad Nath and Dr. Manoj (Student Activity and Sports Officers), Dr. Devatha C.P. (Associate Dean, Student welfare), Dr. Subhaschandra Kattimani (Associate Dean, Research and Consultancy), faculty members and students.

Virtual Quiz Competition: On 29 and 30 October 2021, two rounds of quiz were conducted through MS Teams. Top three contestants were rewarded. The questions were based on the contribution of Kannadigas in the Indian freedom fight and propagation of Kannada language and culture.

Virtual Essay Competition: On 29 October 2021, an essay competition was conducted. "Unification of Karnataka" was the topic given for the essay. Top two contestants were rewarded.



Celebrating the Kannada Rajyotsava Day

Freshers Cup

Freshers cup was organized for the second year UG, and first-year and second-year PG students, who entered the campus for the first time, on 18 and 19 December 2021 (Saturday and Sunday).



Orientation Programme for First Year B.Tech Students

The Orientation Programme 2021-2022 for the first year B.Tech students was conducted on 27 December 2021 through virtual mode at the Digital Library of the Institute. Padma Vibhushan Dr. B.M. Hegde, Former Vice Chancellor, Manipal University, was the chief guest of the programme. Prof. K. Umamaheshwar Rao, Director, NITK, presided over the function. The Deans, Professors in-charge of Hostels, Career development Centre, SC/ST Cell, NCC and the librarian spoke on their respective realms of responsibility and on how students could make use of different facilities in the institute. All the first-year students attended the programme virtually with their parents.



Felicitating Dr. B.M. Hegde

Blood Donation Camp for All Students and Staff on Campus

NITK Hostels organized a Blood Donation Camp on 7 December 2021 in Karavali Mess (Block-1) of the boys' hostel. 155 units of blood were collected which was unprecedented. The Professor in-charge, Hostel Affairs, Prof. Rajmohan B. acknowledged the efforts of every individual who did their part in making the camp successful.



Director Prof. K. Umamaheshwar Rao visited the Camp

Students' Activities

Amateur Astronomy Club

Amateur Astronomy Club held a pre-recruitment event on 26 and 27 August 2021 to make the second and third year students of B.Tech aware of the activities of the club. They also had an opportunity to interact with existing members of the club. This year was the first time a pre-recruitment event was held by AAC which was dubbed "SpaceWalk".

Bharat Darshan

On 26 January 2021, the Dance, Drama and Fashion Club (DDFC) virtually conducted *Bharat Darshan*, a vibrant cultural event of NITK. *Bharat Darshan* is a celebration of the diversity of India. The aim is to represent the traditions and cultures of different states through a variety of traditional dance or cultural forms. Students from different state participated in the event from their home.



International Women’s Day

International Women’s Day was celebrated by the NSS unit of the institute on 8 March 2021 at LHC Seminar Hall with students of NITK Kannada Medium High School. Smt. Vidyalakshmi, Rotarian, was the chief guest of the programme. Prof. Jagannatha Nayak, the then Dean (SW), presided over the function.



Chief Guest addressing the gathering

NITK Toastmasters

The Youth Leadership Programme (YLP), with a motto of “Giving back to the Society”, was taken up by NITK Toastmasters. In March 2021, members of the Club delivered 2-hour sessions every Wednesday and Saturday in NITK English Medium School. The sessions were structured for a small group of 20 students from Class 8. The students learnt the basics of public speaking through practical experience.



Online training of high school students

Azadi ka Amrut Mahotsav Art Competition

To commemorate 75 years of progressive India, an Art Competition was conducted in the spirit of *Azadi ka Amrut Mahotsav* in the month of November 2021. The competition was themed “75 years of triumph of the Indian Freedom Struggle” and was open to all students of NITK. Every artwork was creative and well-thought-out, making it undoubtedly challenging to choose the top 3. Winning artworks are below:



ACM NITK

Mental Health Conversations was an event jointly conducted by ACM-W and the social initiatives wing of ACM NITK, *Krutagnata*. It was a session conducted by a mental health professional Ms. Leanne Pais, who delivered a talk aimed to cope with the stress and uncertainty during the internship season. An active Question & Answer session concluded the conversation which helped the students to get answers to their unsolved difficulties faced during internship season. This tackled a less spoken-about issue prevalent among the students.



NITK Racing

NITK Racing in the year 2021 has established NITK Surathkal's first formula student electric team.

They have participated in two major events with the following results:

1. 1st overall at FSEV 2021
2. 2nd in Business Plan at Formula Bharat Virtuals 2020-21
3. 4th Overall and in Engineering Design at Formula Bharat Virtuals 2020-21



Team of 2021

SPICMACAY NITK

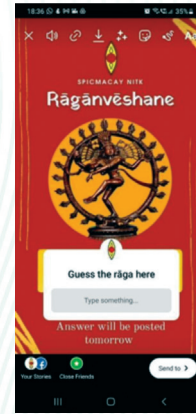
Aradhana 2021

Aradhana, a festival celebrating the rich heritage of India is the flagship event of SPICMACAY NITK. It was a 3-day cultural fest aimed at promoting our culture and arts at the school level. This is done in two phases – by conducting literary and art competitions for school children and giving a platform to upcoming artists to showcase their classical art forms. On account of the pandemic, *Aradhana* was conducted completely in online mode, including the concerts which were streamed on our YouTube channel '[Spicmacay Student Club NITK](#)', receiving over 10,000 views.



Rāgānvēshaṇe

Rāgānvēshaṇe is a series of posts on our Instagram channel [@spicmacaymangalore](https://www.instagram.com/spicmacaymangalore), started in October 2021, aimed at introducing the audience into the beautiful world of music through the lens of *Rāgas*. Every Saturday, posted a short clip of a song or a tune as an Instagram story, and users were encouraged to guess the *Rāga* in which the tune had been set. Then on the next day, posted a reel with the answer along with the description of the *Rāga*.



MoUs Signed with Industries and Institutions/Universities

Date of Signing	Duration	Organisation/ Institution	Area/s of Cooperation
08.12.2021	3 Years	India Internet Engineering Society (IIESoc)	Cooperation in areas of common interest such as IPv6 deployment at university campuses and explore additional related work items.
08.12.2021		Garrison Engineer (P) Ezhimala, Naval Academy, Ezhimala	Consultancy Services
04.09.2021	5 years	Nukus Branch of Navoi State Mining Institute	Development of cooperation in the field of technical education and science. Training mineral industry personnel for acquiring higher skill levels and preparing qualified scientific personnel to be ready for industry 4.0 and beyond.
21.10.2021	10 years	M.S Ramaiah Institute of Technology, Bangalore	To facilitate faculty members of the Institute to submit a Joint project with faculty members of NITK in the Regional Academic Centre for Space (RAC-S) setup at NITK.
17.08.2021	5 years	Manipal Academy of Higher Education, Manipal	To Promote Academic Cooperation

25.03.2021	5 years	Maire Tecnimont S.p.A	for the creation of Maire Tecnimont Centre for Research in Waste Recycling and Circular Economy
12.04.2021	3 years	Prime Ever Ayurvedic Research Laboratories, Navsari, Gujarat	To foster cooperation in education and research
23.07.2021	5 Years	Indian Institute of Technology, Guwahati	To promote Academic Collaboration and to participate in various academic Endeavors
09.07.2021	3 Years	Nokia Solutions and Networks India Private Limited, Bangalore	To collaborate on Learn with Nokia program, develop project prototypes, and Nokia designed curriculum electives (2/3 credits) offered under the name Nokia Course. Both parties shall work together on developing and shaping the curriculum guided by Nokia's technological focus.
19.04.2021	5 Years	University of Utah, Salt Lake City, UT-USA	Visit by and exchange of Undergraduate and Postgraduate students for one or two semesters for academic course work, training fieldwork, internship etc.
30.03.2021	10 Years	National Institute of Technology, Calicut (NITC)	To facilitate faculty members of the institute to submit Joint project with faculty members of NITK in the Regional Academic Centre for Space (RAC-S) setup at NITK.
22.03.2021	5 Years	College of Fisheries, Mangalore	To promote fisheries and technology application for Fisheries research, National and International academic cooperation in education, research and Consultancy
02.03.2021	5 Years	Sree Chitra Tirunal Institute for Medical Sciences and Technology, Trivandrum (SCTIMST)	To facilitate collaboration in academic, scientific research, and technical fields in the broad area of artificial intelligence in neurological diseases, under the project titled "Development of an Artificial Intelligence-based System for Comprehensive Cerebral Arterial Stroke Imaging and Prognostication"

12.01.2021	3 Years	Neel Water Treatment Systems Pvt. Ltd	To develop a collaborative partnership to address the concerns/challenges of Research and development, current engineering education, and industry by providing internship/project opportunities, guest lecturers to NITK students and build a strategic partnership between parties
20.01.2021	5 Years	International Advanced Research Centre of Powder Metallurgy and New Materials, Hyderabad	For joint research collaboration in broad areas of mutual interest
05.01.2021	5 Years	Coastal Engineering Division Karnataka Engineering Research Station, KR Sagara	For Research, National and International Cooperation in education and Consultancy Co-operations

Alumni Activities and Support Received

1996 B.Tech Batch Reunion

The reunion of the B.Tech 1996 Batch of NITK Surathkal was organized on the institute campus during 20-22 December 2021.



A group photograph of the 1996 Batch

1995 B.Tech Batch Reunion

The reunion of B.Tech 1995 Batch of NITK Surathkal was organized on the institute campus during 27-28 December 2021.



A group photograph of the 1995 Batch

Award of Cash and Certificate of Merit

NITK/KREC Alumni of the 1981 batch have contributed plentifully to support NITK Non-teaching and contract staff by donating Rs. 4,73,663/- to NITK/KREC Endowment fund. The award is a cash scholarship of Rs. 10,000/- each for two meritorious and deserving children of non-teaching/contract employees of the institute who secure the highest score in their SSLC examination. For the year 2020, Ms. Anisha, D/o Mr. Srinivas, R.E. office, and Mr. M.S. Manjunatha, S/o Mr. L. Mahadeva, Dept. of Chemical Engineering were chosen. This cash scholarship was given during the NITK Foundation Day, on 6 August 2021.

Trishul Jal Sanchayan - A Groundwater Recharge Project

Trishul Jal Sanchayan is a groundwater recharge project for Trishul (8th block) hostel surroundings. This aims to reduce the water inadequacy that NITK faces by adopting various techniques available for groundwater recharge. The project is designed to collect rainwater from the rooftops of Trishul boys' hostel, Canara bank building and State bank building and divert it to the proposed location of pond and well. Over 300 saplings have been planted around the well to create a green space. The total cost of the project was around Rs. 20 lakh and it was funded by the KREC 1994 batch.



A well collected 12 lakh litres of rainwater this June-July

Associating with Heritage Network

NITK had submitted its application to enrol itself to the Heritage Network, which is an Indo-European network of more than twenty leading technical Higher Education Institutions (HEI) jointly engaged in collaborations through their research and academic activities addressing

common priorities of national interest and well-being. The Heritage Network aims at achieving these goals by identifying partner institutions willing to undertake joint research projects, academic and research exchanges, and industry partnerships between India and Europe. This Network proposes a unique platform and framework for sharing expertise and best practices and foster high level educational programmes.

Associating with Obreal Global Network

NITK has applied to enrol itself to Obreal Global Network in order to open up academic and research collaboration with select Institutions of European Union, Africa, Latin America. We are now accepted as member of this network after an evaluation. Based in Barcelona, Obreal Global Observatory (<http://obsglob.org/>) has recently expanded its mandate to cater to diverse global regions in a 'South-South-North' perspective, aiming to create bridges in support of shared development objectives. The setting up of the OBREAL – Global India Chapter will allow Indian universities and research institutions to link themselves to a global network of universities, university associations and higher education organizations that work together around development, internationalization, research and innovation.

CSR Funding Received and Project Executed

Anaerobic Digestion Plant: Maire Tecnimont Group, the global leader in engineering and construction, has funded a 500 kg Biogas Plant which uses Food and Vegetable Waste as a feedstock, through its Indian subsidiary, Tecnimont Private Limited (TCMPL) as a part of its CSR initiative and has donated Rs. 39.60 Lakh for the installation of pilot plant at the institute.

The company has also provided scholarships worth Rs 4.3 Lakhs to NITK for supporting implementation of pilot plant and further activities related to sustainability at the institute campus. In this regard, Maire Tecnimont S.p.A. Milan has signed an MOU with NITK for period of five years for the creation of Maire Tecnimont Centre for Research in Waste Recycling and Circular Economy.



Outdoor Programme (Behind Aravali Hostel Block)

The company has donated 16 scholarships worth Rs. 35.20 lakh for the academic year 2021-22 to NITK to run the Maire Tecnimont Centre for Research in Waste Recycling and Circular Economy and carryout research. As part of international Corporate Level Social Outreach Program, the inaugural function of Bio-Waste Recycling Pilot Plant (both indoor and outdoor) was held on 25 March 2021.

Placement Statistics Year 2020-21

Department	Eligible Students	Placed	% Placed
B.Tech			
Civil Engg	75	55	73
Chemical Engg	33	31	94
Computer Science & Engg	98	98	100
Electronics & Communication Engg	84	77	92
Electrical & Electronics Engg	90	83	92
Information Technology	95	93	98
Mechanical Engg	124	117	94
Metallurgical & Materials Engg	30	26	87
Mining Engg	32	28	87
Total B.Tech	661	608	92
M.Tech			
Civil Engg			
Structural Engg.	31	13	42
Geo Tech Engg	13	4	31
Environmental Engg	28	6	21
Transportation Systems Engg	27	12	44
Construction Tech & Mgmt	26	4	15
Water Resources and Ocean Engg			
Marine Structures	28	8	29
Water Resource Engg & Mgmt	12	3	25
Remote Sensing & GIS	23	1	4
Chemical Engg			
Environmental Science	9	5	56
Chemical Engg	12	6	50
Industrial Biotechnology	25	13	52

Computer Science & Engg			
Computer Science & Engg	23	23	100
Information Security	32	31	97
Electronics & Communication Engg			
VLSI	33	22	67
Communication Engg & Network	31	21	68
SPML	25	18	72
Electrical & Electronics Engg			
Power & Energy System	29	13	45
Information Technology			
Information Technology	26	24	92
Mechanical Engg			
Thermal Engg	17	8	47
Manufacturing Engg	16	4	25
Mechatronics	28	16	57
Mechanical Design	17	12	71
Metallurgical & Materials Engg			
Process Metallurgy	12	1	8
Materials Engg.	18	3	17
Nanotechnology	6	0	0
Mathematical & Computational Science			
Computational Data Science	23	22	96
Total M.Tech	570	293	51.40
MCA	89	79	89
MBA	28	18	64
MSc (Chemistry)	23	14	61
MSc (Physics)	24	1	4
Total	Eligible Students	Placed	Total % Placed
	1395	1013	72.61
Total Companies Visited: 278	Maximum Salary Rs. 51.75 LPA		
Average Salary UG: Rs. 12.28 LPA		UG: 92 %	PG: 55 %

Training Slots for the Academic Year 2020-21

Sl. No.	Branch	No. of Slots
01	Chemical Engineering	17
02	Civil Engineering	9
03	Computer Engineering	86
04	Electronics & Communication Engineering	48
05	Electrical & Electronics Engineering	46
06	Information Technology	81
07	Mechanical Engineering	110
08	Metallurgical & Material Engineering	20
09	Mining Engineering	1
Number of Companies: 127		Number of Training Slots: 418

PLACEMENT STATISTICS FOR 2021-2022 As on 31.12.2021

Department	Eligible Students	Placed	% Placed
	B.Tech		
Civil Engg	97	59	61
Chemical Engg	35	33	94
Computer Science & Engg	104	100	96
Electronics & Communication Engg	101	94	93
Electrical & Electronics Engg	101	81	80
Information Technology	91	91	100
Mechanical Engg	157	118	75
Metallurgical & Materials Engg	38	24	63
Mining Engg	32	18	56
Total B.Tech	756	618	82
	M.Tech		
	Civil Engg		
Structural Engg.	41	7	17

Geo Thermal Engg	18	2	11
Environmental Engg	34	4	12
Transportation Systems Engg	30	7	23
Construction Tech & Mgmt	63	5	8
Water Resources & Ocean Engg			
Marine Structures	32	9	28
Water Resource Engg & Mgmt	18	4	22
Remote Sensing & GIS	29	4	14
Chemical Engg			
Environmental Science	13	5	38
Chemical Engg	17	4	24
Industrial Biotechnology	24	4	17
Computer Science			
Computer Science & Engg	37	31	84
Information Security	33	26	79
Electronics & Communication Engg			
VLSI	30	17	57
Communication Engg & Network	24	22	92
SPML	24	17	71
Electrical & Electronics Engg			
Power & Energy System	34	15	44
Information Technology			
Information Technology	29	24	83
Mechanical Engg			
Thermal Engg	16	8	50
Manufacturing Engg	21	12	57
Mechatronics	34	16	47
Mechanical Design	20	9	45

Metallurgical & Materials Engg			
Process Metallurgy	17	4	24
Materials Engg.	28	2	7
Nanotechnology	17	7	41
Mining Engg			
Mining Engg	1	0	0
Mathematical & Computational Science			
Computational Data Science	37	31	84
Total M.Tech	721	296	41
MCA	52	41	79
MBA	29	13	45
MSc (Chemistry)	32	0	0
MSc (Physics)	27	0	0
Total	Eligible Students	Placed	Total % Placed
	1617	968	60
Total Companies Visited: 228	Maximum Salary Rs. 45.03 LPA		
Average Salary UG: Rs. 15.73 LPA	UG: 82 %		PG: 41 %
Training Slots for the Academic Year 2021-22 as on 31-12-2021			
Sl. No.	Branch	No. of Slots	
01	Chemical Engineering	11	
02	Civil Engineering	4	
03	Computer Engineering	89	
04	Electronics & Communication Engineering	50	
05	Electrical & Electronics Engineering	35	
06	Information Technology	74	
07	Mechanical Engineering	30	
08	Metallurgical & Material Engineering	2	
09	Mining Engineering	1	
Number of Companies: 55		Number of Training Slots: 296	

New Infrastructure

Inauguration of new buildings



Inaugural of the New Gate

The newly constructed Security Gate and Security Office on the eastern side (main entrance) was inaugurated on 17 November 2021 by the Director Prof. K. Umamaheshwar Rao.

Construction of Sky-Track (Foot overbridge) across National Highway 66



The Bhoomi Pooja at the site for Sky-Track, a foot overbridge across the National Highway to connect eastern and western parts of the campus for the safe movement of faculty, staff and students of the Institute was performed on 01 November 2021 by the Director Prof. K. Umamaheshwar Rao. This work is being carried out through the NHAI and is expected to be completed by August 2022.

Construction of a New Lecture Hall Complex (Block-D)

The Board of Governors of the institute has accorded approval on 03 March 2021 for the construction of a new building for “Lecture Hall Complex – Block D”. The Ministry of Education has accorded approval on 17 January 2022 for funding this project under HEFA (Window – I). The approved project cost is Rs. 54.76 crore. The estimated built-up area of the proposed Lecture Hall

Complex 11,000 sqm, and is designed to accommodate the following facilities:

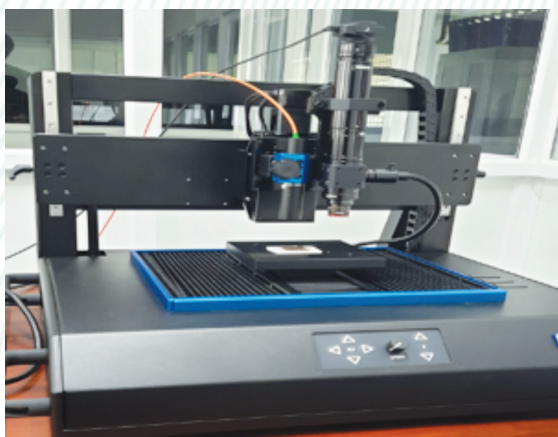
- (i) 4 numbers of Studios with state-of-art and latest facilities & equipment.
- (ii) 30 numbers of Classrooms/ Lecture halls of 120 seating capacity each – 27 classrooms of gallery type and 3 classrooms of non-gallery type.
- (iii) One Faculty waiting room/ group discussion room.
- (iv) All the classrooms/ lecture halls will have Wi-Fi facility, multimedia arrangement, Whiteboards on the middle of dais, LED display facility with display board on either side of Whiteboard, and public address system.

The work would be commenced soon through CPWD.

Central Research Facility

During January – December 2021, a large number of equipment were installed and commissioned in the Central Research Facility. These installations were carried out despite the lockdowns due to the pandemic ensuring that the installation engineers as well as the CRF staff were fully vaccinated. All SOPs as applicable during the pandemic were scrupulously followed. The following gives a brief description of the equipment and their functionality.

1. 3D Noncontact Profilometer



2D and 3D surface measurement with videomicroscope for advance imaging.

2. Raman Spectrometer



Raman and photoluminescence measurements, chemical imaging in 3D and to see both the chemistry and the topography of the sample

3. Thermal Gravimetric Analysis with FTIR



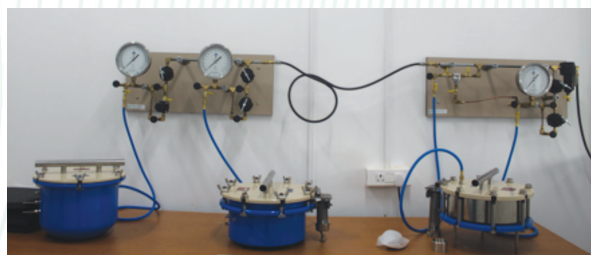
Used for determination of sample volatility, moisture content, oxidation stability, decomposition temperatures, carbon black content, performance of stabilizers and ash Content of polymers and pharmaceuticals.

4. 3D Scanner



Portable 3D scanning solution for small objects, body parts, archaeology and also used for reverse engineering.

5. Pressure Plate Membrane Apparatus



Used for determination of soil water retention/release curve. It is a reliable means of removing soil moisture, under controlled conditions from the soil samples throughout the plant growth range, without disturbing the soil structure.

6. Automatic Gas Sensing Unit



It characterizes the material ability to sense particular gas based on material property.

7. Cell Imaging Multi-Mode Reader



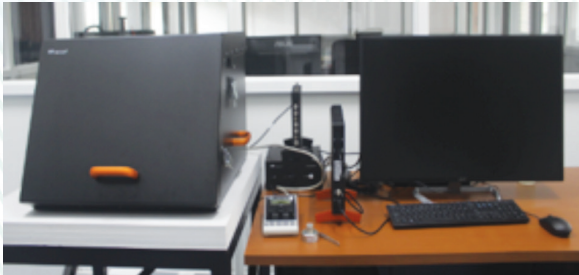
Absorbance, fluorescence and luminescence-based endpoint and kinetic assays, cell imaging: 6- to 1536-well plates.

8. Inductively Coupled Plasma Mass Spectrometry



Environmental, biological, pharmaceutical, petroleum, food and material testing samples.

9. Atomic Force Microscope



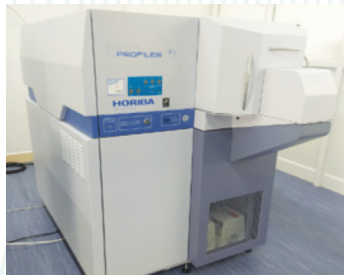
Application in the field of Biomaterials, Lithography, Tribology, nanomechanical and nonelectrical characterization.

10. Multi-purpose Impact Testing Machine with SHPB



Used for determination of maximum contact force, damage area, total absorption value and strain rate of the sample.

11. Glow Discharge Optical Emission Spectrometer



Ultrafast elemental depth profile analysis of thin and thick layers, conducting or isolating, with high sensitivity to all elements.

12. Chemisorption Analyzer with Integrated Mass Spectrometers



It is used to study qualitative analogy of a catalyst, status of physical adsorption & chemisorption, characteristics of adsorption during the reaction, also used to find specific surface area measurement by single point BET analysis.

13. Micromachining with EDM facility



Removal of material in the order of microns, machining of high precision parts like bio medical implants/stents, micro EDM facility for drilling holes or slots with minimum dimension of 250 μm , high degree of Surface roughness, micro geometry & shape.

14. 5-Axis CNC Machining Vertical Centre



Machining of aerospace components, Automotive components, Bio medical implants, Marine structures, metallic civil structures.

15. Friction Stir Welding/ Surfacing System



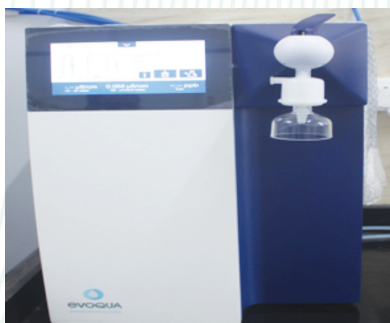
Application in the field of Aerospace, Automotive, Bio medical, Marine structures, also used for surface modification.

16. Automatic Electrolytic Polishing Machine



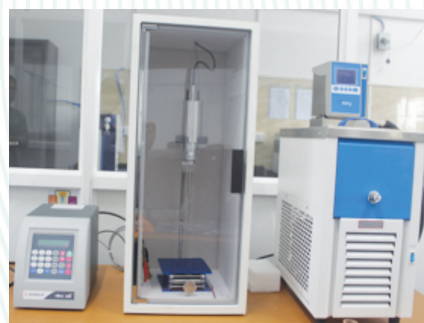
Electropolishing and etching for material characterization.

17. Type 1 Water Purification System



Feed for laboratory ultrapure water systems, laboratory washing machines including final rinse, buffer preparation.

18. Probe Sonicator



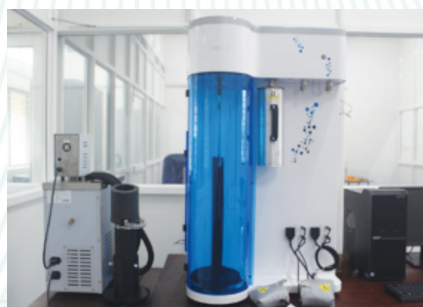
Used for producing nanoparticle materials and graphene dispersions, Sample preparation, Emulsification, sonochemical processing and Cell lysing.

19. Ultracentrifuge



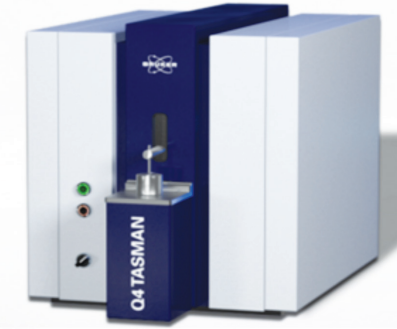
Used for fast and efficient separations from samples, Fractionation, affinity purification.

20. BET Surface Area Analyzer



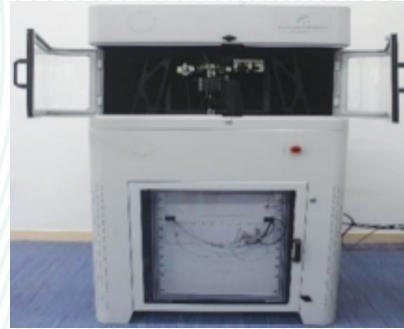
Measurement of surface area, Pore volume, pore size of powder materials.

21. Spark Optical Emission Spectrometer



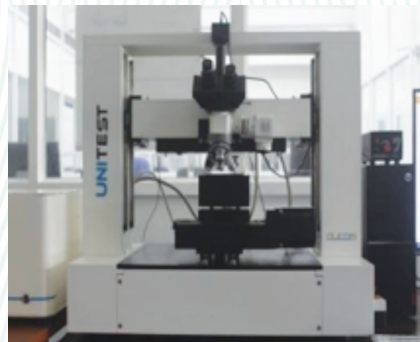
Composition analysis of metallic samples and metal identification.

22. Integrated Multirole Mechanical Test System



It can carry out indentation tests on the tensile samples at any given instant of time.

23. Friction and Wear Monitor



Determination of working load limit of soft coatings like PTFE, critical load of hard and brittle coatings, identification of process parameters of heat treatment for best scratch resistance.

Retirement on Superannuation

Faculty



Dr. R. Shivashankar, Professor (HAG),
Department of Civil Engineering,
retired on 31 May 2021.



Dr. K.N. Lokesh, Professor (HAG),
Department of Civil Engineering,
retired on 31 May 2021.

Non-Teaching Employees

Sl. No.	Name of the Staff	Designation	Date of Retirement
1	Sri Gangadhara B.	Assistant Engineer (SG -I)	28.02.2021
2	Smt. Kasturi Rohidas	Assistant (SG-I)	31.03.2021
3	Sri Prabhakar Shetty	Assistant (SG-I)	31.05.2021
4	Sri Raghurama	Technician	31.05.2021
5	Sri H.R. Ramachandra	Technician (SG-I)	31.05.2021
6	Sri Madhava	Assistant (SG-II)	31.05.2021
7	Sri Gangadhra M. Amin	Technician	31.05.2021
8	Sri Gopi G.	Technical Assistant (SG-II)	31.07.2021
9	Sri Vaikunta Shenoy	Senior Assistant	31.08.2021

Staff opting for Voluntary Retirement (VRS) during January to December 2021

Sl. No.	Name of the Staff	Designation	Date of VRS
1	Sri Thaniya	Office Attendant (SG-II)	06.04.2021





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