January - July 2021



NIE Newsletter

ESTD:1946

The National Institute of Engineering

(An Autonomous Institute Under Visweswaraya Technological University, Belagavi)
[Approved by AICTE, New Delhi, Accredited by UGC NAAC]
Manandavadi Road, Mysuru-570008, Karnataka, INDIA

Message



The new National Education Policy (NEP) has ushered in a paradigm shift in education. It puts the focus on learning instead of studying and goes beyond the formal curriculum to promote critical thinking. We, at NIE, have started working with rigour to bring key elements of NEP into our curriculum. It is important to bring in flexibility and innovation in the curriculum design. In future, the students do not need to pick a stream and get straight jacketed to learn whatever is offered in that stream alone. The onus now is on individual choice. The student will decide what he/she wants to learn and the education system has to have the bull work and flexibility to meet the aspirations of the students. The boundaries between traditional engineering streams such as Civil, Electrical, Computer Science, etc., will disappear and the student can gain multi-disciplinary education cutting across various disciplines. Such an approach has become imperative because of the changing landscape of industry in general and technology in particular.

I am confident that our faculty and staff will take up this challenge with enthusiasm and work towards making our engineering programmes, curriculum delivery and the overall campus life absolutely student centric. I compliment the editorial team of this newsletter for their excellent efforts for showcasing our work in a wonderful manner.

Dr. N V Raghavendra
Principal

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Dr. N V Raghavendra, Principal

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Republic Day celebration





The 72nd Republic Day was celebrated by The National Institute of Engineering, Mysuru on January 26, 2021 at administrative block of the institute. The Tricolor was unfurled by Dr. K. Raghuveer, Principal, NIE. The Head of the Departments, Deans, Heads of Centers of Excellence and Administrative Officer of the institute were present on the occasion.

10th Graduation Day celebration



The 10th batch of 1,072 students of the National Institute of Engineering (NIE) received their provisional degree certificates at the 10th Graduation Day programme held here on 23rd January 2021. Prof. G Hemantha Kumar, Vice-Chancellor, University of Mysore, delivered the graduation day address and said that the New Education Policy (NEP) – 2020 has visualised an education system where the younger generation people are instilled deep-rooted pride in being Indian, not only in thought, but also in spirit, intellect and deeds besides developing knowledge, skills, values and dispositions that support responsible commitment to society.

The NIE management also felicitated 41 BE, 25 M.Tech. and 3 MCA gold medalists besides felicitating 7 faculty members for getting their PhD.

D. Sudhanva, Hon. Secretary, NIE-MC, presided. Dr. K Raghuveer, Principal, welcomed. Dr. Shabana Sultana, Controller of Examinations, proposed a vote of thanks.

DST awards prestigious FIST project to NIE

The Department of Science & Technology, Govt. of India, has awarded the prestigious FIST project to the National Institute of Engineering (NIE), Mysuru. The FIST (Fund for Improvement of S&T infrastructure in universities & higher educational institutions) project, started by DST in the year 2000, provides funding to higher education institutions in order to build strong Science and Technology Infrastructure in the country. **The project outlay of Rs.96 lakhs** will be utilised by NIE to establish a Centre of Excellence in 'Renewable Energy Sources, Battery Management Systems and Internet of Things'.



The multi-disciplinary research team of faculty lead by **Dr. H Pradeepa**, Associate Professor & Head, Department of Electrical & Electronics Engineering, who is also the Principal Investigator for the FIST project, will be working during the project tenure of five years on the following core areas:

- Development of High efficiency fast Battery chargers for Electric Vehicles
- Sensor-less speed control of Electric Drives for Electric Vehicle application
- Development of control system for the proposed hardware set-up with real time interfacing and intelligent features to improve the controllability and reliability of the system
- To conduct research on the impact of Renewable energy systems in the grid and the power quality improvement features of grid-interfacing inverter using IoT

Patents granted to NIE

INTELLECTUAL PROPERTY INDIA
PATENTS | DESIGNS | TRADE MARKS
GEOGRAPHICAL INDICATIONS

Patents in the name of NIE

Invention	Inventors	Month of grant
Recycled brick powder composition for masonary block and a method for synthesising the same	Dr. G L Shekar Dr. M V Achutha Prof. T H Sadashivamurthy	July 2021
Experimental evaluation of flexural toughness of fiber reinforced concrete subjected to sustained elevated temperature	Dr. N Suresh	July 2021
A device to tap black carbon and other particulate matter from diesel engine vehicles	Dr. Y S Varadarajan Dr. K Pushpalatha Dr. Sangamesha M A	July 2021

Patents in the name of Faculty

Invention	Inventors	Month of grant
Scalable Space Structured Ledger Framework for Industrial Internet of Things using Block Chain Technique	Dr. C Vidyaraj, Prof. Dept. of CSE	June 2021
Method and System for Performing Experiments in a Remote Laboratory	Dr. K R Prakash, Prof. Dept. of ME Mohana Lakshmi J, Asst. Prof. Dept. of EEE	May 2021
Double Guarded Hot Box	Dr. N C Balaji, Assoc. Prof. Dept. of CV	March 2021

Field visit by M.Tech. students



One day field trip was organized for the first year M.Tech. (Structural Engineering) students by Dr. N Suresh, Dr. N C Balaji & Dr. Naveen B O, on 27th March, 2021as a part of curriculum activities. The students visited building rehabilitation site to understand the nature of work involved and know about the execution of such construction works.



M.Tech. first year Structural Engineering students along with Dr. Anand Hulagabali, visited "Construction of Reinforced Earth Retaining Wall" at Bengaluru - Mysuru Expressway Corridor near Shrirangpatna- Mandya Stretch on 17th April, 2021. Construction and Design of Reinforced Earth Retaining Wall is part of the 1st year curriculum included in Analysis and Design of Substructure course.



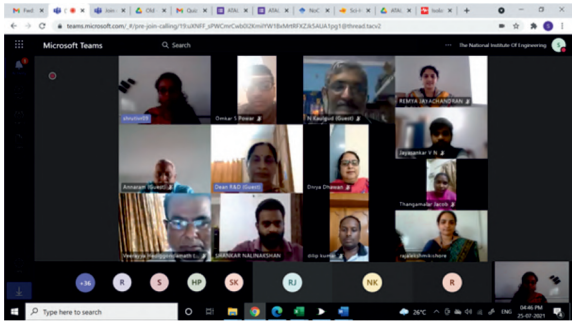
One day training program on Modal View

The Department of Mechanical Engineering, National Institute of Engineering Mysore, organized an online training program on **Modal View** for students and faculty of M. Tech. Machine Design on 24th March, 2021. The training was focussed on Theoretical V/s Experimental Modal analysis, examples and case studies. The speaker was Dr. Akash Rajan, Chief Executive Officer, Vibration Analyst ISO Category III, Tyrannus Innovative Engineering and Research Academy Pvt. Ltd.

AICTE-ATAL sponsored FDP by ECE & EEE

The Department of Electronics & Communication Engg. and Electrical & Electronics Engg., The National Institute of Engineering, jointly organised AICTE-ATAL sponsored Faculty Development Program on **"Hands-on Approach for Design and Implementation of Lab-on-Bread Board - A Blended Learning"** from 21st July 2021 to 25th July 2021.

FDP was inaugurated by Dr. N V Raghavendra, Principal NIE, Mysore. The coordinators for the programme were Ms. Remya Jayachandran, Assistant Professor, Dr. Rajalekshmi Kishore, Associate Professor of Dept. of Electronics & Communication Engg. and Dr. Shankar Nalinakshan, Associate Professor of Dept. of Electrical & Electronics Engg.



NPTEL recognition

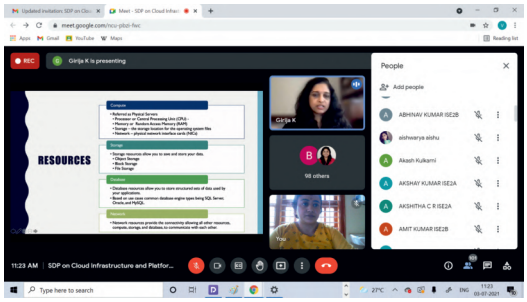
National Programme on Technology Enhanced Learning (NPTEL) recognised **Mr. Prithvi C**, Assistant Professor, Dept. of Mechanical Engg. as **"NPTEL Stars"** in its announcement dated 16th February 2021 for his achievement in NPTEL/SWAYAM courses during Jan-Dec 2020 semesters.



Workshop on Qualitative Research Methods

The Dept. of Electronics and Communication Engineering, NIE, Mysore organized a 3 days workshop on **Qualitative Research Methods-A Guidance for Research Career** on 15th-17th February, 2021. This 3-dayd workshop was designed to encourage and make researchers at ease in writing their research findings. Towards this end, this workshop targeted research scholars, early career researchers and faculty members engaged in research not only familiarizes with various qualitative research methods but also trains them to fulfil their research objectives. Prof. Rajalekshmi Kishore, Associate Professor, Prof. Shruthi R, Assistant Professor and Prof. Remya Jayachandran, Assistant Professor coordinated the workshop. Dr. Damodar Reddy Edla, Assistant Professor, National Institute of Technology (NIT) Goa, Prof. Sanjeev Gurugopinath, Professor, PESIT, Bengaluru, Dr. Rupesh S, Assistant Professor, PES , Mandya were the resource persons.

SDP on Cloud Infrastructure Platforms



Department of Information Science & Engg. conducted one day online Student Development Programme on **"Cloud Infrastructure Platforms"** on 3rd July 2021 for students of NIE. Smt. Girija K, Director, Cloud Infrastructure platforms, spoke on Oracle Cloud Infrastructure service gateway, which allows access to Oracle services within the region to protect your data from the internet. She elaborated on Oracle Cloud Infrastructure service gateway which enables consumer-to-service (C2S) private connections and how Oracle Cloud Infrastructure has reimagined cloud for the most important enterprise applications which runs with a Generation 2 offering and provides consistent high performance and unmatched governance and security controls.

The program was very well attended by 132 plus students and they were very much interested in mini projects & internship opportunities which the speaker gave an insight on what will be offered as long term and short term projects at Oracle in coming days.

The program was convened by Dr. P Devaki, HoD, IS&E and coordinated by Smt. C K Vanamala, Associate Professor and Smt. B M Nandini, Assistant Professor of IS&E.

NIE collaboration with CSTRI for Product Development

A collaborative product development project titled **"Development of Artificial Intelligence Empowered Multi-Sensor Approach for Gender Classification and Separation of Silkworm Cocoons"** is taken up by Dr. Nithin K S, Assistant Professor, Dept. of Chemistry and his research group with *Central Sericultural Research and Training Institute (CSRTI), Mysuru.* The team has already figured out a spectral tool which identifies the male and female silkworm pupae and cocoons.

The Gender Identification Machine is designed and work on fabrication is also under process.



- Project Code: (MFM 01020 CN)
- Category : Multi-Institutional Project
- Project Duration: 12 Months (01/02/2021 to 31/01/2022)
- Total Budget : INR. 17.92 Lakhs
- Funding Agency: Central Silk Board (CSB)

Yoga Day celebration

To celebrate International Day of Yoga (IDY) 2021, Dept. of Physical Education, NIE, organized a demonstration of Common Protocol and some Asanas by Mr. Rudresh C L, Alumnus of NIE 2012-16 batch and India's second best student Yogi 2015, on June 21, 2021.

TEQIP-III Sponsored value added course





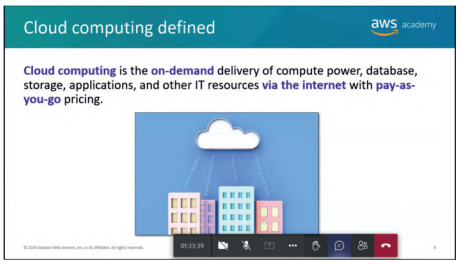
The Dept. of Computer Science and Engineering conducted a TEQIP-III sponsored value-added course titled **"Virtualization using VSphere"** from 15th March 2021 to 19th March 2021.The aim and objective of this course was to impart knowledge of Virtual Machines. The experts from *ICT Academy* enlightened the students about virtualization and educated the students on VMware vSphere which is the VMware's cloud computing virtualization platform. All sessions engaged by the resource persons were very well planned and the theoretical knowledge imparted by them strengthened along with the practical sessions. Students were exposed to production environment tools and there was an active participation by them. Students felt happy to learn cutting edge technology by real-world application tools.

The outcomes of the course were:

- Students gained knowledge and strengthened their knowledge about virtualization.
- They were able to use, configure and monitor virtual machines.
- They understand how VSphere can be used in business applications.
- They were able to create, use and configure a virtual machine over bear metal hardware components.

The value added course was conducted by Dr. Jayasri B S, Professor, Ms. Ramya S, Assistant Professor, Mr. Yogesh M J, Assistant Professor, Mr. Suhas S, Assistant Professor and Mr. Narender M, Assistant Professor of Dept. of CS&E.

Workshop on AWS Cloud Computing



The Dept. of Information Science & Engg. conducted the 15 days online workshop on **"AWS Cloud Computing Architecture"** sponsored by TEQIP-III during 15th February 2021 to 31st March 2021 for 100 students of current 6th semester of IS&E department. The key resource person for the workshop was Mr. Hari Prasath from AWS. During inauguration Mr. Vishnu Prasad, State Head, Karnataka, ICT Academy briefed about the benefits of course and gave information about certification of the course. Dr. P Devaki, HOD, Dept. of IS&E briefed about the establishment and aim of Center of AWS academy in association with ICT Academy. She encouraged the students to take up the course. Dr. Bhat Geetalaxmi Jairam, Associate Professor and Convener of this workshop gave bird eye view and objective of the workshop. Ms. Prathibha B S, Asst. Professor and co-ordinator of the workshop introduced the resource person to participants. Mr. Rajesh N, Asst. Professor and co-ordinator of the workshop delivered vote of thanks. The event was anchored by Mr. Suhas Bhardwaj, Asst. Professor and also co-ordinator of the workshop.

After the completion of this course, the student will be able to:

- Make architectural decisions based on AWS architectural principles and best practices
- Use AWS services to make infrastructure scalable, reliable, and highly available
- Use AWS managed services to enable greater flexibility and resiliency in an infrastructure
- Indicate how to increase the performance efficiency and reduce costs of infrastructures built on AWS

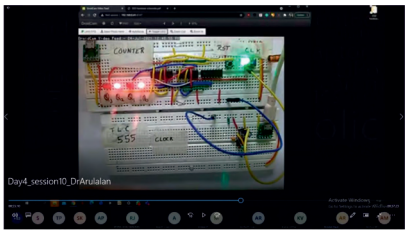
Workshop on Physics Virtual Lab

Dept. of Physics, organized **"An Introductory Workshop on Physics Virtual Lab"** to faculty members, highly motivated research scholars and students of UGC and AICTE approved institution on 08th December, 2020. There was an overwhelming response to the workshop with more than 400 participants. Dr. Kumaraswamy G N, Chairperson, Physics, School of Engineering, Amrita Vishwa Vidyapeeta, Bengaluru has demonstrated the experiments in workshop. He explained clearly, how to use the virtual lab in Physics by taking examples in three broad areas namely mechanics, optics and electronics.

Virtual Labs
An MHRD Govt of India Initiative

AICTE sponsored 5 days Faculty Development Program





Dept. of Electronics & Communication Engg. conducted AICTE sponsored 5 days Faculty Development Program on **"Hands-on Approach For the Design and Implementation of Lab on Breadboard –A Blended Learning"** from 21st to 25th July 2021 in which around 130 participants from different parts of the country participated. The aim of this FDP was to impart the concept of lab-on-chip/lab-on-breadboard for various applications. Lab-on-Breadboard is very useful for the faculty members, researchers and professionals to demonstrate the basic concept in design. Fundamentals of the analog circuit and digital circuit design and considerations were covered by the eminent resource persons on this FDP and the participants had a hand-on experience on the circuit design, both in hardware and in simulator. At the end of the FDP, participants were familiarized with a minimum of 10 experiments on analog designs and digital designs, both hands on and simulation on computers (Blended learning concepts).



The key takeaways of the workshop were -

- Concepts about blending learning
- Exposure to different simulator tools- TINA-TI and LogicSim
- Exposure to cost effective analog and digital product design

The participants were highly enthusiastic having attended the workshop. They have planned to extend their knowledge and start blended learning.

Three days FDP on Writing Research Proposals and awareness on IPR Information Technology

Three days Faculty Development Program titled **"Writing Research Proposals and awareness on IPR Information Technology"** was organized by Dept. of Information Science & Engg., from 21st January 2021 to 23rd January 2021. The resource persons were Dr. M A Jabbar, Dr. Sanju Tiwari, Ms. Surabhi Ganesh, Dr. Manoj and Smt. Poornima Satish. The Organizing committee comprised of Dr. Devaki, HOD, Dept. of IS&E (Patron), Mr. Rampure Srinath, Associate Professor (Convenor), Smt. C K Vanamala, Associate Professor (Coordinator), Mr. Rajesh N, Assistant Professor (Coordinator) and Mr. Suhas Bharadwaj, Assistant Professor (Coordinator).

One of the resource persons, Dr. Sanju Tiwari expressed lot of valuable inputs on how to write the research proposals. Some case studies were discussed along with funding agencies like DST, Indo-German collaboration, Indo-US, Indo-Japan joint proposals currently running in different streams, WOSA etc., and some fund raising software solutions.

Dr. Jabbar highlighted on how and where we make mistakes while writing the proposals and shared tips and tricks to correct the same with at least 15 iterations to get the proposal right. Further, Dr. Jabbar and Dr. Sanju Tiwari demonstrated hands on session on how to write research proposals and the entire set of participants were divided into 5 groups and the 5 teams presented their proposals and corrections and suggestions were made by the experts.

There was excellent effort by all the faculty and PG students for attempting to write the Project Proposal. Overall, 3 days' workshop was very fruitful in context, content and delivery and value addition which was well received by all the participants asking for more such programs to be conducted in the future.

Spriger Best Paper Award

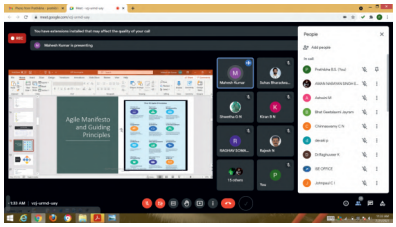


Congratulations

Three technical papers were presented by **Dr. Anand M Hulagabali**, Assistant Professor, Dept. of Civil Engg., in Indian Geotechnical Conference-2020, organised by Andhra University and IGS Vishakpattanam Chapter on 18th and 19th December 2020. He was awarded "Springer Best Paper Award" for the research paper titled "Assessment of Effect of Deep Excavation on Adjacent Structures using Finite Element Analysis". Other two papers which got published in proceedings are, "Numerical Simulation of Field Vane Shear Test Using Finite Element Analysis", "Numerical Study on Prediction of Behaviour of Braced Excavation in Heterogeneous Soil".

Technical talk on Scrum and Hybrid Scrum

The Department of Information Science & Engg. conducted online technical talk for faculty on **"Scrum and Hybrid Scrum"** on 21st July 2021. Resource person Mr. Mahesh Kumar, Solution Delivery Lead in IBM-ISL, shared information about Agile Manifesto, Scrum, advantages and disadvantages of Scrum and about Hybrid Scrum.
This webinar was organized by Dr. P Devaki, Prof. and Head of the Department, Ms. Prathibha B S, Asst. Professor and Mr. Suhas Bharadwaj R, Asst. Professor of IS&E Department.



Agile Manifesto being explained to the audience

SDG Center for Youth Engagement



National Institute of Engineering Mysore, in coordination with United Nations Development Programme (UNDP) and Sustainable Development Goal Coordination Center (SDGCC) & Department of Planning, Programme Monitoring and Statistics, Government of Karnataka, has established India's first "SDG Center for Youth Engagement"

The Government of Karnataka (GoK) and United Nations Development Programme (UNDP) have established Sustainable Development Goal Coordination Center (SDGCC), with Dept. of Planning, Programme Monitoring and Statistics being the nodal agency. National Institute of Engineering Mysore and SDGCC have coordinated together which has resulted in NIE establishing India's first **"SDG Center for Youth Engagement"**. This SDG Centre was inaugurated by Shri B J Puttaswamy, Deputy Chairman, Karnataka State Planning Board, GoK on 21st November 2020. Mr Ashok Anand, Vice President, NIE Managing Committee, Mr. D Sudhanva, Hon. Secretary, NIE Managing Committee, Dr. K Raghuveer, Principal NIE, Dr. H S Prasanna, Professor, Dept. of Civil Engg. and SDGCC team from Bangalore were part of the inaugural ceremony. Shri. B J Puttaswamy, in his inaugural speech reiterated the Government of Karnataka's lead in contributing to India's vision of achieving Sustainable Development Goals by 2030.

Initiatiative by NIE-CRD



An invited talk was arranged from NIE - Cetre for Research & Development (CRD) on **"Strategies to submit a successful project proposal under SERB startup scheme"** by Dr. Sudarshan Iyengar, Executive Director, NIE, Mysore, on 1st February 2021, to motivate the freshly appointed faculties having PhD degree, with the age of less than 42 years. In this inspirational talk, the speaker has emphasized about the novelty and strong achievable objectives to be taken care of while writing the research proposal, which will not only have more probability of getting the grants but also helps to enhance the visibility and branding of the institute. Totally 51 faculty members have attended this program.

NIE-CREST Activities

Awareness Programs
by Centre for Renewable Energy & Sustainable Technologies (CREST)

An awareness program on **"Renewable Energy and Sustainable Technologies"** was conducted at Kanana Organic Farm, Baradanapura, Jayapura Hobli, Mysuru on 17th January 2021.

Mr. Somshekar, Chairman, Indian Green Building Council (IGBC), members of IGBC, NIE college students and villagers attended the program on Waste Management (segregation of waste), ways to utilize the Segregated Waste, Solar Energy Technologies, Renewable Energy Micro Grids, Muscle Power Technologies, Rainwater Harvesting System, Sustainable Building Technologies and MICRO/Pico Hydel System.



An awareness program on **"Renewable Energy and Sustainable Technology and Bio Fuel"** was conducted at NIEIT, Mysuru on 1st February 2021. Government representatives of Koorgally Panchayat and Ex-Minister G T Devegowda were present in the program.









An awareness program on **"Renewable Energy and Sustainable Technologies"** was conducted at Hemmige Haadi (Tribal Hamlet), Hunsur Taluk, Mysore District on 2nd April 2021.

The people in the Haadi were educated regarding Waste Management (segregation of waste), ways to utilize the Segregated Waste and other technologies promoted by CREST.





Awareness Program on Biofuel at Settahalli Haadi, Hunsur Taluk, Mysore District on 2nd April 2021





The technologies promoted by CREST were exhibited and also an awareness program on the same was demonstrated by NIE-CREST at State Institute for Urban Development (SIUD) Mysore. District Commissioner Mrs. Rohini Sindhuri and MCC Commissioner Mrs. Shilpa Nag and Engineers from MCC and public were preset in the program.

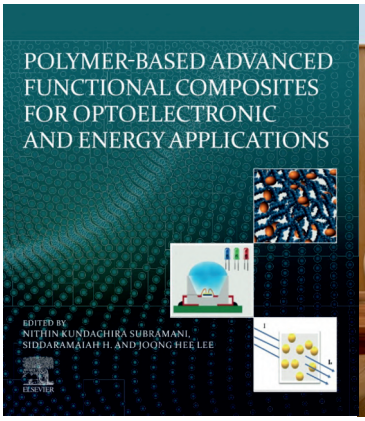
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Aerobic Composter Installation at Karnataka Police Academy (KPA), Mysuru.



The waste management project at Karnataka Police Academy (KPA), Mysuru was initiated by Vipul Kumar, Director, KPA. Two mesh type aerobic composters to manage the waste from the kitchen and left out food and two numbers of UV protected bag composters to manage the leaf waste generated within the campus were installed. The manure obtained from the composters was used to develop the garden. The installation was done by NIE-CREST and training was given to workers to convert the waste to composter. DYSP Kumar and other Police officers were present during the training program.

Book Release





Research centric book titled **"Polymer-based advanced functional composites for optoelectronic and energy applications"** contributed by, Dr. Nithin Kundachira Subramani (Assistant Professor, Dept. of Chemistry, NIE, Mysuru), Dr. M. R. Siddaramaiah, & Dr. Joong Hee Lee, published with *Elsevier publishing house*, was released to public domain on 23rd July, 2021 by Dr. N V Raghavendra, Principal (NIE, Mysuru) Dr. G L Shekhar, Former Principal (NIE, Mysuru), Dr. Hemalatha W/o Late. Dr. Siddaramaiah, Dr. R. K. Sharma, Director Tech (CSB Bangalore) and Dr. Babulal Director (CSR&TI Mysuru).

Two days workshop on Innovation through Lean Thinking



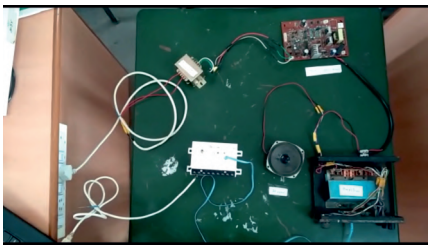
The Dept. of Industrial and Production Engineering conducted two days workshop on **"Innovation through Lean Thinking"**, on 11th and 12th December 2020. The workshop focussed on comprehensive understanding of how lean manufacturing works in manufacturing sectors. The workshop provided the learner with lean implementation suggestions including approaches for addressing the different issues and the workshop also addressed the students, fundamental concepts of Lean Practices and how these lean tools implementation can impact on manufacturing sectors, how the various lean tools can be implemented and their role in productivity improvement. Also, highlighted the historical development of production system, evolution of mass production and impact of lean tools on manufacturing sectors in terms of product quality, improved lead time, sustainability and increased profit.

National Science Day - 2021 celebration

National Science Day was celebrated through online mode by Dept. of Physics on March 14, 2021. An invited talk was delivered by Ar. Chinmayi M S on the topic **"Going Local for Global Impacts: A conversation about Eco-Sensitive technology"** in which echo sensitive technology was discussed which could save our future. On this occasion a National Level competition on *"Best out of Waste"* was organized for which a number of entries were received from all over the country, amongst which three best entries have been given prizes. The videos of the prize winning entries have been uploaded in the official YouTube Channel of Department of Physics. (**https://www.youtube.com/channel/UC6_wc9qDjUU6EBicaTeckjQ**)



- 1st Prize - Electronic Waste Music System
- 2nd Prize - Hand Made Torch
- 3rd Prize - Radiographic film Recycler





Student Webinars conducted by Dept. of EEE

- A webinar on **"Electric drives for industrial and electric vehicle applications"** for 8th semester students of UG, first and third semester students of PG-Power systems and CAID programme on 6th October 2020. This webinar was coordinated by Dr. B R Ananthapadmanabha and Mr. Neeli Mallikarjuna.
- A webinar on **"Learning EEE: Why and How?"** for third semester students of UG programme on 16th December 2020. This webinar was coordinated by Dr. Jayasankar V N and Mr. Neeli Mallikarjuna.
- A webinar on **"The New Electric World"** for 5th semester students of UG Programme on 19th December 2020.This webinar was coordinated by Mrs. R Radha and Mr. Neeli Mallikarjuna.
- A webinar on **"Selection of Electric Motors for Industrial Applications"** for 5th semester students of UG programme on 29th December 2020. This webinar was coordinated by Ms. Sonaxi Bhagawan Raikar and Mr. Neeli Mallikarjuna.
- A webinar on **"Power system protection"** for first semester students of M.Tech. in power systems on 18th April 2021. This webinar was coordinated by Dr. R Chidanandappa, Power system Programme coordinator.

Industrial visit to BSNL RTTC





The Dept. of Electronics and Communication Engg., organized a 1 day **"Industrial visit to BSNL RTTC, Mysore"** on 8th February, 2021. Faculty and students from 7th Semester and 1st year ME participated in the programme. The students were accompanied by faculty Dr. Rajalekshmi Kishore, Dr. Nagaraju, Dr. Yajunath Kaliyath and Miss. Shruthi R.
Mrs. Sunitha, Divisional Engineer, Telecom division, BSNL RTTC, Mysore coordinated the event and made all necessary arrangements for the visit.
Students were introduced to the following labs at RTTC, BSNL Mysore.

- Optical Fibre Communication Lab
- Digital Switching Lab
- Wireless Communication Lab
- Data Communication Lab

The students were divided in to three groups and each group was engaged to different labs.

Proud Students of NIE





Mr. Ayush Jain, 2020 - Graduated student, Department of Civil Engineering, NIE got admission for Master Degree program in Civil Engineering at "Politecnico Milano in Milan, Italy". Mr. Jain has also cleared **GATE-2020**.



Mr. Pawan Naika L, 2020 - Graduated student, Department of Civil Engineering, NIE got admission for Master's program in Transportation Engineering & Management, Department of Civil Engineering at National Institute of Technology, Tiruchirapalli. Mr. Naika has cleared **GATE-2020** and secured a **GATE Score of 313**.



Mr. Omkar Yogaraj (V EC, 4NI17EC053) bagged Two Silver Medals in 58th National Roller Skating Championships-2020 speed Skating held at Mohali, Punjab from 4th to 10th April 2021.

Also, bagged One Gold Medal and Three Silver Medals in 36th State Roller Skating Championships- 2020 Speed Skating held at Mysuru from 4th to 7th March 2021.

Workshop on Mathematical Foundations for Data Science



Three days workshop was organized by the Dept. of Computer Science and Engg. on **"Mathematical Foundations for Data Science"** from 4th January 2021 to 6th January 2021 with an objective to introduce faculty members and make them appreciate the mathematical aspects of data Science. Dr. Sudarshan Iyengar, Professor ,IIT Ropar, Punjab was the resource person.

The first day of the workshop focused on defining a set of classical problems under Data Science. The speaker invoked the curiosity of the audience through a series of questions and classic examples. It was a fun-learning experience for the audience through simple problem solving. The second day of the workshop involved interesting sessions on further problem solving and establishing a set of results. The problems of day-1 were revisited and some standard inferences were made. The third day of the workshop involved vectors and some important results involving linear combinations of a set of vectors. There was an introduction to the matrix theorem in terms of mapping to the solution of simultaneous linear equations.

Outcome:

It was a very enlightening experience in terms of the takeaway of key concepts of the mathematical foundations in a fun-filled manner. As per the feedback, the participants thoroughly enjoyed the workshop and obtained a starting point for exploring further on data science aspects.

Live webinar on Big Picture of E&CE





Dept. of Electronics and Communication Engineering organized two days webinar on **"Big Picture of Electronics & Communication Engineering: Academia Industry Perspective"** from 12th to 13th February 2021 through online mode using Google Meet for the speakers and students attended in offline at NRN Block, classroom 405 and 411. The speakers for the session were Dr. Nisha Haridas, Sr. Lead System Engineer, Qualcomm and Dr. Dhanaraj K J, Assistant Professor, NIT, Calicut. The event was coordinated by Ms. Remya Jayachandran, Mr. PavanKumar P Bandoji, Assistant Professors, Dept. of ECE, NIE and Dr. Rajalekshmi Kishore, Associate Professor, NIE Mysore.

Objective of the Programme

- To understand the interconnection among various subjects in the ECE curriculum
- To discuss and analyze the role of Electronics & Communication from different perspective
- Role of Electronics and Communication Engineers to the society

One week FDP on Linear Algebra



One week Faculty Development Programme on **"Linear Algebra and its Applications"** was organized by the Dept. of Mathematics in association with the Dept. of Mechanical Engineering from 26th February 2021 to 03rd March 2021.

One of the resource persons, Dr. Ashok Rao, has introduced the participants to Linear Algebra Applications during the inauguration. In the later talks he discussed about inner product spaces, eigenvalues and eigenvectors. Dr. Arulalan Rajan has introduced participants to the concept of vector spaces, Linear Transformations, four fundamental subspaces, Rank Nullity theorem and Singular Value Decomposition in detail. Also he has discussed about how to visualise eigenvalues and eigenvectrors using software tools. Dr. Sudarshan Iyengar introduced participants to diogonalizability and its applications to google page ranking algorithm. Dr. Sandesh Kamath introduced participants to some of the classical optimization problems.

New PhD s



Dr. Anand M Hulagabali, Assistant Professor, Dept. of Civil Engg. (NIE) has been awarded PhD from National Institute of Technology - Surat, Gujarat on 23rd March, 2021 for the thesis titled "Static and Seismic Response Analysis of Reinforced Earth Retaining Wall" under the guidance of Dr. C. H. Solanki.



Dr. Akhil V M, Assistant Professor, Dept. of Mechanical Engg. (NIE) has completed his PhD in Mechanical Engineering from National Institute of technology Calicut (NIT Calicut) with thesis titled "Design development and control of a pneumatically activated human locomotion system" under the guidance of Dr P K Rajendrakumar, Professor, Department of Mechanical Engineering NIT Calicut and Dr K S Sivanandan, Professor, Department of Electrical Engineering NIT Calicut.



Dr. Anand A, Assistant Professor, Dept. of Mechanical Engg. (NIE) has completed his PhD in Mechanical Engineering from Visveswaraya Technological University, Belagavi, with thesis titled "Performance study of Composite Biodiesel extracted from Pongamia, Neem and Calophyllum seeds" under the guidance of Dr. G V Naveen Prakash, Associate Professor and Head, Department of Mechanical Engineering, Vidyavardhaka College of Engineering, Mysuru.



Dr. Chandan, Assistant Professor, Dept. of Civil Engg. (NIE) has been awarded with PhD from RCG School of Infrastructure Design and Management, Indian Institute of Technology, Kharagpur on 26th June, 2021 for the thesis titled "Urban Land Use Modelling and Developing a Framework of Spatial Decision Support System for Indian Cities" under the guidance of Prof. Bharath Haridas Aithal.



Dr. C I John Paul, Assistant Professor, Dept. of Information Science & Engg. (NIE) has completed his PhD thesis defense titled "Feature based representational structures for time series" on 19th July, 2021 at NIT Tiruchirappalli under the guidance of Dr S. Nickolas (NIT Tiruchirappalli) and Dr. Munaga V N K Prasad (IDRBT, Hyderabad).



Dr. Vadivel S M, Assistant Professor, Dept. of Industrial Production & Engg. (NIE) has been awarded PhD from NITK - Surathkal, Gujarat on 26th November, 2020 for the thesis titled "Development and Implementation of Lean Service Tools and Techniques in India Post Mail Service – A Case Study".



Dr. Harshavardhan B, Assistant Professor, Dept. of Mechanical Engg. (NIE) has been awarded PhD from Visweswaraya Technological University, Belagavi, Karnataka for the thesis titled "Studies on Mechanical, Thermal and Tribological Behaviour of Carbon Fiber Reinforced Polymer Composites with Fillers" under the guidance of Dr. Ravishankar R (SJCE, Mysuru) and mentored by Dr. Suresha B, Professor and Head, Department of Mechanical Engineering. NIE Mysuru.



Dr. Anitha R, Associate Professor, Dept. of Computer Science & Engg. (NIE) has been awarded PhD from Visweswaraya Technological University, Belagavi, Karnataka for the thesis titled "Energy Efficient Load Balancing Algorithm for Cloud VMs using Clustering Technique" under the guidance of Dr. C. VidyaRaj, Professor, Department of Dept. of Computer Science & Engg, NIE, Mysuru.

PhD Viva Voce

Mr. Sachin B P, Assistant Professor, Govt. Engineering College, Chamarajanagar and Research Scholar (Part time) at NIE has successfully defended his PhD viva voce (online) of thesis titled "Studies on Retrofitting of Hybrid Fiber Self Compacting Concrete Subjected to Elevated Temperature"on 12th October 2020. Prof. Satish Kumar S R, Professor, IITM, Chennai was the external examiner. Mr. Sachin was guided by Dr. N Suresh, Professor, Department of Civil Engineering, NIE.



Mr. Sachin receiving the Provisional Ph.D Degree Certificate

One week FDP on Probability, Statistics and their Applications



Dept. of Mathematics in association with the Dept. of Electronics and Communication Engineering has organized one week Faculty Development Programme on **"Probability, Statistics and their Applications"** during 05th-10th March 2021.

One of the resource persons Dr. Ashok Rao has introduced the participants to the history of the probability theory and its applications. Dr. Arulalan Rajan has introduced participants to the classical definitions of probability theory, discrete, continuous random variables, parameters associated with the random variables and multivariate random variables. Also he has discussed about some of the classical inequalities, applications of positive definite matrices in the theory of probability. Dr. Praveena A S discussed about the Statistics and introduced the participants to one the statistical tools called R. Dr. Prathosh A P defined the probability with measures and discussed some the interesting problems in probability theory. Dr. Ravi S has discussed about some of the assorted problems in probability theory.

Centre of Excellence Inaugurated

AWS Academy, VMware IT Academy, and **"ICT Academy Centre of Excellence for Design"** powered by Autodesk were inaugurated at The National Institute of Engineering, Mysuru on 30th October 2020. The initiative was taken to boost up the technology skill of student community, which will pave way for higher employability in the IT/ITeS sector. The inauguration of the Centres of Excellence was attended by members from corporate & academia. More than 200 members were present during the inaugural function.

The speakers of the inaugural function were Dr. B Anbuthambi, President, ICT Academy, Dr. Rohini Nagapadma, Principal, The National Institute of Engineering, Sachin Kumar R S, Regional Program Manager, VMware IT Academy APJ, VMware; Badari Hiriyur, Education Programs Specialist, Autodesk, Dr. Mamta D, Professor – Department of Mathematics, The National Institute of Engineering. The coordinators of the centre of Excellences are ICT Academy Centre of Excellence for Design Powered by Autodesk – Dr. Balaji N C, Associate Professor, Department of Civil Engineering, VMware IT Academy – Dr. Jayasri B S, Associate Professor, Department of Computer Science and Engineering, AWS Academy - Dr. Bhat Geetalaxmi Jairam. Associate Professor. Department of Information Science and Engineering

Installation of Micro Grid (Phase-1) by NIE-CREST

Remote area/village where the electricity grid has not reached and also the supply of grid power is not reliable can be electrified using locally available renewable energy sources such as Solar Energy, Bio Gas Energy, Hydel Energy & Wind Energy. NIE-CREST is involved in designing & establishing the (Microgrid based Renewable Energy Power plants) (IREPP). These plants are appropriate for remote villages, village hamlet, coffee estates & other remote locations.

Prof. Sham Sundar (Head-CREST) and Srikant (Director-Deed, Hunsur), with NIE students identified the availability of renewable resources in the Haadi and installed a Micro-Grids comprising of 1KW solar panel, inverter and batteries, 3KW Bio Diesel Generator on 05th March 2021. As a result, houses, a temple and one street light of the Haadi were electrified by 100% renewable energy sources for lighting and mobile charging purpose. Mr. Satya Kumar, Director NIE Managing Committee was also present during the installation program.

Hemmige Haadi is a small tribal hamlet in Hunsur Taluk, Mysore District. The people living there are below the poverty line and are in the fringes of forest area, hence they do not have access to electricity.





Faculty Accomplishments

Dr. N. Suresh, Professor, Dept. of Civil Engg.

- Delivered a talk on "Fire Resistance of Structures"at National Seminar organized by Dept. of Civil Engg., Government Engineering College, Haveri on 18th June 2021.
- Delivered a talk on "Fire Resistance of Structures"at Larsen & Toubro, Mysuru on 29th July 2021.

Dr. M S Ganesh Prasad, Professor, Dept. of Civil Engg.

- Delivered a lecture on "Estimating Uncertainty in Remote Sensing Data" at Forest Survey of India, Dehradun on 27th July 2021.

Dr. H S Prasanna, Professor, Dept. of Civil Engg.

- Recognized as "JOINT SUPERVISOR" for the M. Tech thesis at Department of Civil Engineering, National Institute of Technology, Agartala
- Recognized as "JOINT SUPERVISOR" for the M. Tech thesis at Department of Civil Engineering, National Institute of Technology, Silchar

Dr. N C Balaji, Associate Professor, Dept. of Civil Engg.

- Invited talk on "Construction Measurement and Calculation – Volumes of Cube, Cuboids and Cylinder" for "Bare Foot Technician" under MGNREGA Training Program, which held on 15th to 29th March 2021, Organized by the Abdul Nazir Sab State Institute of Rural Development (ANSSIRD), Administrative Training Institute Campus, Mysuru, Karnataka
- Expert talk on "Thermal Performance of Low Carbon Building Materials & Sustainable building Technologies", in One-week Online Short-Term Training Program (STTP) on "Novel Advances in Ingredients of Sustainable Construction Materials" which held from 1st June to 5th June 2021, organized by Department of Applied Mechanics of L.D.College of Engineering, Ahmedabad, India.

Dr. Anand H, Assistant Professor, Dept. of Civil Engg.

- Invited as Expert Speaker for webinar on "Applications of Geosynthetics in Civil Engineering Projects" organised by IGS Surat Chapter and IGS Student Chapter, SVNIT, Surat on 25th July 2021.
- Delivered an expert talk on "Interlocking Stabilised Soil Blocks - Appropriate Material and Method for Construction Rural Areas" as Resource Person in One Week FDP on "Precast and Sustainable Technologies" organised by JB Institute of Engineering and Technology, Hyderabad on 23rd April, 2021.
- Delivered Guest Lecture on Career opportunities and Guidance for Civil Engineering Students on 15th January 2021, organised by Department of Civil Engineering, KLE Dr. M. S. Sheshgiri College of Engineering & Technology, Belagavi.
- Recognized as "JOINT SUPERVISOR" for the Doctoral Thesis at School of Engineering and Technology, Poornima University, Jaipur, Rajasthan.

Kavitha S S, Assistant Professor, Dept. of Electronics & Communication Engg.

- Achieved Badge in "IBM quantum challenge- advanced Badge 2021".

Dr. Pradeepa H, Associate Professor, Dept. of EEE

- Reviewer in the IEEE International conference.

Dr. Gurumurthy S R, Professor, Dept. of EEE

- Established BARC-NIE Centre for Electric Vehicle Development with an Experimental setup for Electric Vehicle Laboratory in collaboration with BARC, Mysuru.
- Resource person for AICTE-ATAL sponsored FDP on "Hands-on Approach for Design and Implementation of Lab-on-Bread Board-A Blended Learning" held at NIE Mysore from 21st July 2021 to 25th July 2021.

Mrs. Radha, Associate Professor, Dept. of EEE

- Reviewer in the Department Advisory Board meeting, SJCE, Mysuru.

Dr. R Chidanandappa, Associate Professor, Dept. of EEE

- Reviewer of International journal, Electrical Systems and Components, Taylor and Francis Group.
- Reviewer in International Conference (Mysore Con-2021) held on 24-25 October 2021 at NAVKIS College of Engineering, Hassan organized by IEEE Mysore Sub Section.

Dr. Likith Kumar M V, Associate Professor, Dept. of EEE

- Invited as a resource person for FDP on "Operational Planning in Electric Distribution Systems"held at Bapuji Institute of Engineering & Technology, Davangere.
- Academic Auditor in SDM College of Engineering and Technology, Dharwad.
- Session Chair in 1st National Conference, "Emerging Trends in Engineering Science for Future Technology 2020" held at Sri Siddhartha Institute of Technology, Tumkur
- Session Chair in International Conference, "Recent Trends in Science and Technology (ICRTST-2021)", held at ATME college of Engineering, Mysuru.
- Jury member for VIVACIOUS-2021, held at Vidyavardhaka College of Engineering, Mysuru.
- Jury member for National Level Project Competition,held at ATME College of Engineering, Mysuru.
- Jury member for "Shakthistaavara-2021", held at GSSSIETW, Mysuru.
- Invited as a resource person for "Smart Distribution System" in 7th National Conference on Power System Engineering, held at SDM College of Engineering and Technology, Dharwad.
- Reviewer at Flagship International Conference Series of IEEE Mysore Sub Section in Association with IEEE Bangalore Section held at NAVKIS College of Engineering, Hassan.
- Designated Reviewer for IPMU Journal of Energy Harvesting and Storage.
- Reviewer of Electrical Power Components and System Journal.

Dr. Shankar Nalinakshan, Associate Professor, Dept. of EEE

- Resource person for Five days FDP on "Recent Trends in Power Electronics, Controllers and Power Systems", held at GMR Institute of Technology, AP.
- Track Chair IEEE- CONECCT 2021(International Conference)
- Reviewer of Alexandria Engineering Journal (Elsevier Publication).
- Reviewer of IEEE MYSURU CON-2021.
- Reviewer of "7th International conference on Electronics, Computing and Communication Technologies", IEEE CONECCT organized by IEEE Bangalore.

Faculty Accomplishments

Dr. Jayasankar V N, Assistant Professor, Dept. of EEE

- Resource person for AICTE-ATAL sponsored FDP on "Hands-on Approach for Design and Implementation of Lab-on-Bread Board- A Blended Learning"held at NIE Mysore from 21st july 2021 to25th july 2021.
- Resource person in "Grid Integration of RE and its Impact on Grid Stability in five days KTU sponsored Online FDP on Recent advances in power Electronics and Power Systems "
- Session Chair in 8th International conference on "Smart Computing and Communications(ICSCC 2021)" organized by Muthoot Institute of Technology and Science, Kochi.

Dr. B R Ananthapadmanabha, Associate Professor, Dept. of EEE

- Resource person for AICTE-ATAL sponsored FDP on "Hands-on Approach for Design and Implementation of Lab-on-Bread Board- A Blended Learning"held at NIE Mysore from 21st July 2021 to 25th July 2021.
- Reviewer for IEEE HTC 2021.
- Reviewer for Sound and Vibration.
- Reviewer for International Journal of Emerging Power systems

Dr. Rohit K. Mathew, Assistant Professor, Dept. of EEE

- Session chair in the International Conference on Circuits, Control and Energy, Christ Engineering Congress, 2021, held at Christ College of Engineering, Thrissur, Kerala on 14th July 2021.
- Reviewer for Electric Power Components and Systems Journal, Taylor and Francis, International Journal of Disaster Risk Science, Springer Nature.
- Reviewer for IEEE International Power and Renewable Energy Conference (IPRECON 2021), held at College of Engineering Karunagappally, Kerala, 24-26 September 2021.
- Reviewer for International Conference on Communication, Control and Information Sciences (ICCISc 2021), held at Government Engineering College Idukki, Kerala, 16-18 June 2021.

Dr. Mohana Lakshmi J, Assistant professor, Dept of EEE

- Resource Person in 3-Days Student Development Program on Recent Trends in Electrical Engineering "Electric Vehicle Technology –Introduction, Trends & Challenges", held at PESIT, Shivamogga.
- Member-Board of Studies (Meritorious PG Alumni) PES College of Engineering, Mandya.
- Reviewer for " Devising High Fidelity Synthetic Data using Generative Adversarial Networks for Energy Storage Systems", IEEE MYSURU CON-2021
- Reviewer for "Modeling of High Voltage-High Frequency DC-DC Converter for Transmitter Application",in 7th International conference on Electronics, Computing and Communication Technologies, IEEE CONECCT organized by IEEE Bangalore.
- Reviewer for "Solar PV Network Installation Standards and Cost Estimation Guidelines for Smart Cities", Alexandria Engineering Journal (Elsevier Publication).
- Jury member for National Level Project expo on Power and Energy 2021 held at Vidya Vardhaka College of Engineering, Mysuru.
- Jury member in Ideathon-2021

Mr. Bharath T S, Assistant Professor, Dept. of IPE

- Conducted a short term training program on "Automation Technologies" from 21-29 December 2020 , organized by Centre of Relevance & Excellence, Department of Electrical & Electronics Engineering, Ajay Kumar Garg Engineering College, Ghaziabad.

Dr. H N Divakar, Professor, Dept. of IPE

- Delivered invited talk on "Long Term Sustainability of Organization through Lean Implementation - Tools and Techniques" in National Webinar conducted by RNSIT Bangalore on 21st December 2020.

Dr. Vadivel S M, Assistant Professor, Dept. of IPE

- Received consultancy project in Indian Postal Service on Implementing Lean Service in Mysuru Postal Mailing service.

Dr. Chandra, Assistant Professor, Dept. of Physics

- Delivered lectures on Solid State Physics and Electronic Devices for 1st year M.Sc. students at Karnataka State Open University, Mysuru from 3-5 March 2021.

Dr. Deepa Urs M V, Associate Professor, Dept of Physics

- Reviewer and Session Chair in the International Conference on Recent Trends in Science and Technology (ICRTST – 2020) organised by ATME College of Engineering on 8th & 9th July 2021.

One week FDP on Recent Trends in Advanced Materials and Applications

One week faculty development programme on **"Recent trends in Advanced Materials and Applications"** was organised by Dept. of Physics, The National Institute of Engineering, Mysuru from October 19 to October 23, 2020. The FDP programme received an overwhelming response with more than 250 participants. The FDP aimed to provide opportunities for faculty and research scholars to enrich their knowledge in the above field. The FDP was attended by participants from different institutes all over India.

The programme was inaugurated by Dr. N C Shivaprakash, Professor, Department of Instrumentation, IISc, Bengaluru, in the presence of Dr. Rohini Nagapadma, Principal, NIE, Mysuru, Dr. N V Raghavendra, Vice- Prinicpal, NIE Mysuru, Dean, Hods and faculties of various department of NIE along with coordinators. Dr. N C Shivaprakash stated ***"without science there is no engineering and without engineering there is no technology"*** in the keynote address delivered. The speakers from elite institutes such as IISc, IITs, NIT and Universities have delivered lectures in the event.

All the sessions were very much informative. The discussed areas were of great benefit for the participants as the topics match with the current working domain. Participants enlightened with the most widely used advance technologies in this domain.

Vaccination Drive









Covid-19 **"Vaccination Drive"** has been conducted for students and faculties of NIE Mysuru on Monday, 28th June 2021. The drive was symbolically inaugurated and supervised for some time by Mysuru-Kodagu MP Sri. Pratap Simha, who said that the strategy was to inoculate all the students, teachers and other staffs before the offline mode of classes begin. District Health Officer (DHO) Dr. K H Prasad was also present. Expressing happiness over getting priority in the jab drive, students thrilled with the fact that soon, the colleges will be open. Nearly 1000 students, staff and faculty of the institution got vaccinated in the drive.

KITS Activity

The National Institute of Engineering, Mysuru in association with Karnataka Innovation and Technology Society (KITS) New Age Innovation Network (NAIN), Department of Electronics, IT, BT, and S&T, GoK has organized a webinar on **"Entrepreneurship Potential in Renewable Energy Technologies"** on Wednesday, 19th May 2021.

The distinguished speakers for the webinar were Prof. Shamsundar, Head-CREST, NIE, Mysuru and Mr. Ravikumar Kandaswamy, Deputy Director, Energy & Infrastructure, Mahathma Gandhi Institute for Rural Industrialization, Wardha, Maharastra.

Following topics were covered in the discussion:

- Current Renewable Energy scenario in India and the world.
- Latest innovations in Renewable Energy Technologies
- Entrepreneurship potential in Renewable Energy Technologies

Mr. G Vivek Bharadwaj, District Innovation Associate, KITS NAIN program, NIE, Mysuru was the coordinator of the event.

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