





Department of Mechanical Engineering



Editors: Dr. C Velmurugan Mr. B.N Sreeharan Associate Editors: Mr. Praveen B Ms. Rushethra P.N



## **NOTE TO THE READERS:**





We are delighted to announce the launch of our 4<sup>th</sup> anniversary newsletter with celebration of passion and innovation. This marks a significant milestone for our team, which was first launched its first newsletter in the year of 2017 focusing on our achievements in academics, co-curricular and extracurricular activities.

To mark this milestone, we are delighted to launch this 4<sup>th</sup> anniversary newsletter. We planned to include few new sections via, student speaks, students page – articles, photographs, food for thoughts, job opportunities, Q&A etc in coming episodes.

It is also decided to increase the circulation including with alumni, with industries signed MoU with the department with the aim of reaching to all the stake holders.

Please take this opportunity to review and forward this newsletter to all members who are within our organization, as well as to your friends in related disciplines.

Editors

**MEXPRESS** 

## PROGRAMMES ORGANIZED

- Department in collaboration with KCIRI, Auto, AERO organized a Webinar on "Sandwich Composites and its Failure Modes" on 06.08.2020. Dr. N. Sangeetha, Sr. Associate Professor, coordinated the event. Mr. Subramanya Sastry,Director - Projects, Renprotech Solution Pvt. Ltd. Bangalore was the resource person.
- Another webinar in association with IIC tiled "Innovation to start-up/Smart Manufacturing was organized on 06.08.2020. Dr. S. Balasubramanian, Associate Professor coordinated and delivered the lecture. Mechanical
- A Webinar on "Importance of students enrolling in a Professional society" was organized by the department on 21.08.2020. Mr. M. A. Vinayagamoorthi, AP (II) & Mr. R. S. Mohankumar, AP coordinated the event. Dr. K. Chitra, Honorary Secretary, Coimbatore Productivity Council was the resource person.
- A Training programme on "Technology Platform" was organized on 28.8.2020. Training to the students was provided by the following faculty members.
  - 1. Mr .M. A. Vinayagamoorthi, AP (II)
  - 2. Mr. B. N. Sreeharan, AP (II)
  - 3. Dr. P. S. Samual Ratnakumar, AP
  - 4. Mr. S. Sivakumar, AP (II)
  - 5. Mr. P. Prashanth, AP
- An Awareness programme on Protosem for incoming Third Year students" was organized on 03.08.2020. Mr. S. Dinesh, Program Manager Forge, Coimbatore was the resource person. Mr. M. Thirumalaimuthu kumaran, AP (II), Mr. B. Jeeva, AP and Mr. S. Subbiah, AP were the coordinators.

 Another webinar on "Awareness to GATE exam" was organized by the department in collaboration with Unacademy, Coimbatore on 06.08.2020. The webinar session revealed about Preparation Strategy for GATE exam. Students got awareness on importance of GATE exam. Dr. N. Sangeetha, Sr. ASP coordinated the webinar.

### **GUEST LECTURES DELIVERED**

- Dr. S. Balasubramanian, ASP delivered a guest lecture in webinar on "Innovation to start-up with IIC" on 06.08.2020.
- Mr. B. N. Sreeharan, AP(II) delivered a guest lecture in a Webinar on "Communication as a tool to crack campus placements" for Pioneer College of Arts and Science Students on 19.08.2020.
- Dr. S. Bhaskar, ASP Delivered the address (recorded version) on 02.08.2020 in the UG students' parents meeting of Mechanical Department (2nd, 3rd and 4th year parents)" on 02.08.2020. He also delivered lectures on career readiness, placement, writing journal papers for 2nd year entering BE Mechanical Engineering students on 31.08.2020.

### PAPERS PUBLISHED

Dr. M. Balaji, ASP published a paper entitled "Experimental Investigations to Deploy Green Manufacturing through Reduction of Waste Using Lean Tools of Electrical Components Manufacturing Company" in the Scopus indexed International Journal of Precision Engineering and Manufacturing - Green Technology, Springer Publications. He also published another paper entitled "Ranking Supplier by using Sustainable Supplier Evaluation Criteria (SSEC) and Multi Criteria Decision making (MCDM) Method using AHP and ANP Process" in the International Research Journal of Engineering and Technology, Volume 7, Issue 8, pp. 5039-5047.

## **PAPERS REVIEWED**

- Dr. P. S. Samuel Ratna Kumar, AP, reviewed a paper titled "Mechanical approach of a novel ceramic-composite consisting of YAG-matrix with alumina nanoparticles using slip casting and sintering process" for the International Journal Materials Research Express.
- Dr. V. R. Muruganantham, ASP reviewed a paper titled "Using Envelope Analysis and Compressive Sensing Method for Intelligent Fault Diagnosis of Ball Bearing" for the Advances in Science, Technology and Engineering Systems Journal (ASTESJ).

## **BOOK CHAPTERS PUBLISHED**

 Mr. R. S. Mohan Kumar, AP, Mr. M. A. Vinayagamoorthi, AP (II) published a chapter "Scientific Approach on Design and Fabrication of Automated Inbuilt Hydraulic Jack for Light Motor Vehicle" for the book Recent Developments in Engineering Research Vol. 2. Published by Book Publisher International, West Bengal, Print ISBN: 978-93-90206-87-2, eBook ISBN: 978-93-90206-88-9.

### **INDUSTRY LINKAGES**

- An online Internship "Skyy Rider" in collaboration with Robert Bosch from 20.08.2020 to 25.09.2020 was arranged to 35 students by Dr. C. Velmurugan, HoD, Dr. V. R. Muruganantham, ASP, and Mr. PD. Devan, AP
- A project work on "A study on Influencing Process Parameters on Product Quality" was carried at M/s. Sri Ram Karthik Polymers Pvt Ltd, Coimbatore by Mr. R. S. Mohan Kumar and 2 Students from the department.

- Mr. N. V. Manishkumar, Mr. A. Shivananda Ganesh is undergoing an internship at M/s. KU Industries Private Limited from 03.08.2020. Dr. K. M. Senthilkumar, ASP coordinated the internship.
- A virtual internship from 25.07.2020 to 20.08.2020 for 63 students was arranged at Roots Industries, Coimbatore by Dr. V. R. Muruganantham, ASP and Mr. P D Devan, AP



• An MoU was signed with M/s. Unitek Hydraulics Private Ltd by the department on 27.08.2020 for developing Coir Machines. MoU was coordinated by Dr. S. Balasubramanian.

## FACULTY EXTENSION ACTIVITIES (Courses/Programmes Attended)

Dr. C. Velmurugan, HoD

- Completed a Four Weeks online course on Successful Presentation in course era- 05-08-2020- University of Colorado.
- Completed a Four Weeks online course on Introduction to Mechanical Engineering Design and Manufacturing with Fusion 360 in courser-08-08-2020- AUTODESK.
- Completed a Four Weeks online course on Six Sigma Advanced Analyze in course era- 09-08-2020- Kennesaw state University.
- Completed a Four Weeks online course on Initiating and Planning Projects in course era-09-08-2020, University of California, Irvine.
- Completed a Four Weeks online course on Engineering Systems in Motion Dynamics of Particles and Bodies in 2D Motion- 13-08-2020, Georgia Institute of Technology.

- Completed a Four Weeks online course on Introduction to Molecular Spectroscopy- 17-08-2020, The University of Manchester.
- Completed a Four Weeks online course on Water Resources Management and Policy- 17-08-2020, The Universite DE GENEVE.
- Completed a Four Weeks online course on Fundamentals of Engineering Exam Review- 20-08-2020, Georgia Institute of Technology.
- Attended a webinar on "Innovation commercialization for Atmanirbar Bharat" on 14-08-2020 conducted by TURNIP Innovations Private Limited.
- Attended webinar on "AICTE AQIS schemes on Faculty Development to include National Initiative for Technical Teachers Training" on 18-08-2020 organized by Faculty development Cell, AICTE, New Delhi.
- Attended a webinar on "National Education Policy 2020" on 20-8-2020 organized by Noorul Islam Centre for Higher Education (NICHE).
- Attended a webinar on "FACTORY OF THE FUTURE-Digital Transformation for ACADMIA" on 20-08-2020, organized by HARITA Techserve.

### Dr. V. Muthukumaran, Professor

- Completed a five-week online course in coursera on "Introduction to Engineering Mechanics" conducted by Georgia Institute of Technology.
- Completed a five-week online course in coursera on "Applications in Engineering Mechanics" conducted by Georgia Institute of Technology.

- Completed a seven-week online course in coursera on "Engineering Systems in Motion: Dynamics of Particles and Bodies in 2D Motion" conducted by Georgia Institute of Technology.
- Completed a two-week online course in coursera on "Mechanics of Materials IV: Deflections, Buckling, Combined Loading & Failure Theories" conducted by Georgia Institute of Technology.
- Completed a five-week online course in coursera on "Mechanics of Materials III: Beam Bending" conducted by Georgia Institute of Technology.
- Attended webinar on 29 August 2020, Time: 16:00 to 17:30 - IEI Centenary Technical Webinar on 'Green Building with Integrated Design Approach' organised by Faridabad Local Centre of The Institution of Engineers (India).
- Attended Two days FDP "Germinate FDP & Hands-on Workshop" during 27th & 28th Aug 2020.
- Attended webinar on Aug 23, 2020 2:30 PM -6:30 PM - "Post-COVID 19 Supply Chain Collapse: Challenges and Solutions", conducted by The Institution of Engineers (India).
- Attended webinar on Response of the DBT's Autonomous Institutes to COVID-19 on Friday, August 21, 2020 3:00 PM – 4:00 PM IST.
- Attended webinar on "Revolutionize your factories with Al". Thu Aug 20, 2020 3pm – 5pm India Standard Time – Kolkata. Conducted by CPC.
- Attended virtual launch of AIC Anna University Incubation Foundation on Wednesday 19th August 2020 at 10.30 AM.
- Attended Webinar on AICTE AQIS schemes on Faculty Development to include National Initiative for Technical Teachers Training is being held on 18th Aug 2020 from 5 PM.

- Attended webinar on August 17, 2020 from 5:00 - 6:00 pm- 'National Education Policy 2020' - Federation of Indian Chambers of Commerce & Industry.
- Attended webinar on "Copyright Guidelines for Online Teaching". Date Time: Aug 14, 2020 11:00 AM India, KCT
- Attended webinar on Aug 14, 2020 07:30 PM -"Open POWER Webinar : AI solutions , Containerizing applications using E4S".
- Attended FEIAP-ICT Webinar on 'Smart Learning: A New Paradigm' on 10 Aug 2020

### Dr. R. Manivel, Professor

- Attended international conference on " Emerging Trends in Health Care Technology during COVID-19" organised by SPARC Cell and SMST, Kharagpur Date : 8-9, 2020.
- Attended 5 Day On-line Faculty Development Programme (FDP) on "Advances in Automotive Mechatronics" organised by Department of Mechanical and EIE, RV College of Engineering, Bangalore Date :July 27-31 July"
- Attended Webinar on Innovation to startup on the topic " Design Thinking and Innovation Contest" organised by IIC, KCT .Date : 03-08-2020.
- Attended Webinar on Innovation to startup on the topic " IPR and Patent Filing " organised by IIC, KCT .Date : 04-08-2020.
- Attended Webinar on Innovation to startup on the topic " Internet of Things " organised by IIC, KCT .Date : 05-08-2020.
- Attended Webinar on Innovation to startup on the topic "Smart Manufacturing " organised by IIC, KCT .Date : 06-08-2020.

- Attended Webinar on Innovation to startup on the topic " Incubation and Startup Process " organised by IIC, KCT .Date : 07-08-2020.
- Placed Mr. Yashwanth Sinha to M/s Bull Agro Implements , Coimbatore from 06-08-2020 onwards

### Dr. P. Sathyabalan, Professor

- Completed 7 weeks Course in Coursera -Engineering Systems in Motion: Dynamics of Particles and Bodies in 2D Motion - Georgia Institute of Technology.
- Attended IEI Seminar on SMART LEARNING: A NEW PARADIGM, organised in association with IE Malaysia on 10/8/2020 from 3-4.30 PM.
- Attended 2 weeks FDP on ICT Tools for Teaching, Learning Process & Institutes, Jointly organized by EICT Academies- NIT Patna, MNIT Jaipur, IIT Roorkee, IIITDM Jabalpur, IIT Guwahati, from 10 August 2020 to 21 August 2020.
- Attended Alumni Talk Series 04: Session 04 on Career Options for Engineers by Mr. Sriram Peruvamba of B. E. Mechanical - Batch 1991, on 22/8/2020 from 5 - 6.30 PM

Dr. N. Sangeetha, Sr. Associate Professor

- Completed a 5 week online course titled "introduction to Vibration" in coursera.
- Completed in a 5 week online course titled "introduction to Advanced Vibration" in coursera.
- Participated a webinar a Webinar on Sandwich Composites and its Failure Mode on 07-08-2020

Dr. S. Bhaskar, Associate Professor

- Attended Webinar organized by Sri Eshwar College of Engineering, Coimbatore -01 August 2020 - "Vidya (Science of Happiness)".
- Attended Webinar organized by Sri Eshwar College of Engineering, Coimbatore -05 August 2020 - "IT Network Infrastructure - An Overview".
- Attended Webinar organized by Sri Eshwar College of Engineering, Coimbatore -06 August 2020- "An Insight to LEAN Methodology".
- "Attended Webinar organized by Sri Eshwar College of Engineering, Coimbatore -10 August 2020 - ""Changing the ME residing in ME Live Safe, Managing Stress, Anger, Fear & Expectation""".
- Attended Webinar organized by Sri Eshwar College of Engineering, Coimbatore -13 August 2020 - "Enhancing Customer Experience using Al".
- Attended Webinar organized by KCT -14 August 2020 - "Copyright Guidelines for Online Teaching".-Webinar by Gregory Manoj .
- Attended Webinar organized by KCT -24 August 2020 - Webinar on Teams and Onenote - by Mr. Mayank Sathe, InfiSpark, Indore, MP.
- Placement training for KCT 11.08.2020 for final year mechanical engineering students on TQM.
- Attended alumni talk series by KCT 01 August 2020 by Amithkumar 1991-95 Mech. batch on textile industry status.
- Attended alumni talk series by KCT 29 August 2020 -Gearing up for disruption in automotive Technology - By A. Senthil (2001 Mech Batch) -Robert Bosch.

 16 August 2020 - The Selection process for the KCT Leadership Council 2020 - 21 -Presentation panel member for the Vertical -President - PG

Mr. T. R. Sukumar, Associate Professor

- Attended webinar on factory of the future and digital transformation for academia on 20/08/2020by Harish Tehserve.
- Attended a webinar on we on are on national education policy 2020 on 20/08/2020 by Islam centre for higher education.
- Attended a webinar on we on are on revolutionize you factories I with AI 20/08/2020 national engineering college kovilpatty.
- Attended FEIAP ICT WEBINAR on smart learning on 10/08/2020.
- Attended KCT alumnai lecture series 01/08/2020 29/08/2020.
- Attended three NPTEL lecture series 16/08/2020 26/08/2020 07/08/2020.

Dr. K. M. Senthil Kumar, Associate Professor

- Completed a five-week online course in coursera on "Introduction to Engineering Mechanics" conducted by Georgia Institute of Technology.
- Completed a five-week online course in coursera on "Applications in Engineering Mechanics" conducted by Georgia Institute of Technology.
- Completed a seven-week online course in coursera on "Engineering Systems in Motion: Dynamics of Particles and Bodies in 2D Motion" conducted by Georgia Institute of Technology.
- Completed a seven-week online course in coursera on "Control of Mobile Robots", conducted by Georgia Institute of Technology.

- Completed a six-week online course in coursera on "Advanced Engineering Systems in Motion: Dynamics of Three Dimensional (3D) Motion", conducted by Georgia Institute of Technology.
- Participated in a FDP on "Advanced Optimization Techniques for Research Problem Solving", from 4th Aug to 8th Aug. 2020
- Participated in a FDP on "ADVANCED WELDING TECHNOLOGIES", from 4th Aug to 8th Aug. 2020
- Participated in a FDP on "MOODLE Learning Management System", from 10th Aug to 14th Aug. 2020
- Participated in a FDP on "RECENT TRENDS IN PRODUCT DEVELOPMENT", from 24th Aug to 28th Aug. 2020
- Participated in a FDP on "Exploring New Frontiers of Digital Transformation in Teaching-Learning", under AICTE Training and Learning (ATAL) Academy from 24th Aug to 28th Aug. 2020
- "Attended webinar- 22nd August 2020 -""Understanding Dedicated Outdoor Air System"" - ISHRAE (Indian Society of Heating, Refrigerating & Airconditioning Engineers) Coimbatore Chapter.
- Attended webinar-Aug 23, 2020 2:30 PM 6:30 PM - "Post-COVID 19 Supply Chain Collapse: Challenges and Solutions", The Institution of Engineers (India).
- Attended webinar-29 August 2020, Time: 16:00 to 17:30 - IEI Centenary Technical Webinar on 'Green Building with Integrated Design Approach' organised by Faridabad Local Centre of The Institution of Engineers (India).

- Attended webinar-August 17, 2020 from 5:00 6:00 pm- 'National Education Policy 2020' -Federation of Indian Chambers of Commerce & Industry.
- Attended webinar-Aug 13, 2020 3:30 PM 7:00 PM - "Mitigating Safety Challenges in Oil & Gas Sector by Skill Development"- Safety and quality forum - IEI & National Skill Development Forum -IEI with the support of Delhi State Centre- IEI.
- Attended webinar-FEIAP-ICT Webinar on 'Smart Learning: A New Paradigm' on 10 Aug 2020.
- Attended webinar-Aug 13, 2020 3:00 PM 4:30 PM - "Let's optimize Tapping with Sandvik Coromant".
- Attended webinar-Aug 14, 2020 07:30 PM -"Open POWER Webinar : AI solutions , Containerizing applications using E4S". International Webinar.
- Attended webinar-14 August 2020, Time: 16:00 to 18:30 - Waste Water Treatment for Sustainable Development, The Institution of Engineers (India).
- Attended webinar-08.08.2020, 6.00 p.m -"Webinar on "Chiller Plant Manager and its Advantages", ISHRAE (Indian Society of Heating, Refrigerating & Airconditioning Engineers) Coimbatore Chapter.
- Attended webinar-Aug 6, 2020 3:30 PM 7:00 PM
  "DRAFT EIA NOTIFICATION 2020: HIGHLIGHTS AND CHALLENGES", The Institution of Engineers (India).
- Attended webinar-Aug 31, 2020 "Knowledgebased Process and Product Development for Aerospace Applications.
- Attended Two days FDP "Germinate FDP & Hands-on Workshop" during 27th & 28th Aug 2020.

 Attended "Faculty Training on Class Notebook" on Aug 27th, 2020 organized by Department of Mechanical Engineering, KCT from 5.30 pm to 8.00 pm.

### Dr. V. R. Muruganantham, Associate Professor

- Attended 1 week FDP Advanced Optimization Techniques for Research Problem Solving conducted by MGIT - during 4th to 8th Aug. 2020.
- Attended Webinar on Changing ME; Residing ME Eswar College on 10th Aug.
- Attended Webinar on Inbuilt Quality Eswar College on 11th Aug.
- Attended KLDA workshop titles as Building you on 12th Aug.
- Attended 2 day workshop from Germinate on 13th and 14th Aug.

### Dr. M. Balaji, Associate Professor

- Completed 4 week online course through coursera -Communication in the 21st century workplace - 1.8.2020, Univ of California, Irvine
- Completed 4 week online course through coursera -High impact business writing -4.8.2020, Univ of California, Irvine
- Completed 4 week online course through coursera -Art of negotiation 7.8.2020, Univ of California, Irvine
- Completed 4 week online course through coursera -Fundamentals of Management 10.8.2020, Univ of California, Irvine
- Completed 4 week online course through coursera -Effective Problem solving and decision making - 13.8.2020, Univ of California, Irvine.

- Completed 4 week online course through coursera -Essentials of Entrepreneurship: thinking and action - 16.8.2020, Univ of California, Irvine
- Participated in TN Government sponsored eFDP 'Energy Efficiency and Audit: An Eco-Friendly Endeavour' 17.8.2020 to 21 September 2020 at GCT, Coimbatore
- Participated in TEQIP sponsored 5 day e-Short term course 'Exploring Potential: STC on 2020 research advances towards generating leading investigators' 24.8.20 to 28.8.2020 at NIT-Jalandar
- Delivered Placement Training Lecture on Supply Chain Management to Batch 2017-21 Students.

### Dr. S. Balasubramaniam, Associate Professor

- Attended a webinar , Industry 4.0 and future Engineering, Organised by St. Joseph College, Chennai on 06-08-2020.
- Attended Workshop from Germinate two days on 13th and 14th Aug.
- Participated as a Panel member in IIC Innovation contest 3 days- 27-08-2020 to 29-08-2020.

#### Dr. B. Senthilkumar, Associate Professor

- Participated in an AICTE sponsored virtual STTP on "Smart Materials for Intelligent future: Industrial and defense perspective" August 17-22, 2020.
- Participated in an CPC FREE WEBINAR on "Revolutionize your factories with Al" August 20, 2020.
- Participated in an "Online Exam of One Week National Workshop on "Best Practices of ICT Tools in Teaching and Learning" on August 3 to 8, 2020".

- Participated in a One Week Faculty Development programme on "ADVANCE WELDING TECHNOLOGIES" organised by 'Department of Mechanical Engineering, Faculty of Engineering & Technology, JAIN (Deemed-to-be) University, Bengaluru on 04-08th August 2020.
- Attended a Webinar on Vidya (Science of Happiness)" by Sri Eshwar College of Engineering, Coimbatore on 01 August 2020.
- Completed 6 weeks Coursera Course on "Excel Skills for Business: Essentials".
- Completed 4 weeks Coursera course on "Supply Chain Logistics".

### Dr. S. Thirumurugaveerakumar, Associate Professor

 Attended webinar on "Funding opportunities on research proposals for faculty -Insights on developing Research Idea into a Funding Proposal" organized by Er Perumal Manimekalai College of Engineering (PMC Tech) under the aegis of IIC in association with NAFEMS on 7 & 8 August, 2020

### Dr. K. Ulaganathan, Assistant Professor - III

- Participated in a "Three Days FDP on Applications of Mathematical Modelling in Science and Engineering, Organized by Vivekananda Institute of Technology, Jaipur in association with Rajasthan Technical University, Kota.
- Participated in a One Week FDP ON Advanced Optimization Techniques for Research Problems Solving Organized by Mahatma Gandhi Institute of Technology, Hyderabad.
- Participated in one Day Faculty Empowerment Program on Building you Organized by KLDA.

- Participated in an One Week FDP on Recent Development in Solar Energy Recovery and Storage Technologies organized by St. Joseph's College of Engineering, Chennai.
- Participated in an One Week FDP on Research Trends in Water Resources and Environmental Engineering Organized by NIT, Arunachal Pradesh in Association with Govt. College of Technology, Coimbatore.
- Participated in an One Week FDPon Global Steel Industry Sustainability (GSIS-2020) Organized by NIT, Durgapur.
- Participated in an Two Weeks FDP ON ICT Tools for Teaching, Learning Process and Institute Organized by ICT Academies, NIT Patna & MNIT Jaipur.
- Participated in an One Week ATAL Academy sponsored online FDP on Blended Learning and Flipped Classrooms Organized by JIS College of Engineering, Kalyani, West Bengal.
- Completed Coursera online Course: Engineering Systems in Motion: Dynamics of Particles and Bodies in 2D Motion (7 Weeks)
- Completed Coursera online Course: Advanced Engineering Systems in Motion: Dynamics of Three Dimensional (3D) Motion (6 Weeks)
- Completed Coursera online Course: Budgeting and Scheduling Projects (5 Weeks)
- Completed Coursera online Course: Communication in the 21st Century Workplace (4 Weeks)
- Completed Coursera online Course: Effective Problem-Solving and Decision-Making (4 Weeks)

Dr. K. K. Arun, Assistant Professor - III

- One Week Online Short Term Course on "Reliability, Maintainability and Quality Issues in Process Industries" Organized at Dr. B. R. Ambedkar National Institute of Technology, Jalandhar, TEQIP-3.04-08-2020 - 08-08-2020
- "MOODLE Learning Management System" conducted by Sridevi Women's Engineering College - CSE Department - between 10-08-2020 and 14-08-2020- 5 days
- ATAL Academy sponsored online ATAL FDP -SVNIT Surat on "Blended Learning and flipped classrooms" 10-08-2020 and 14-08-2020- 5 days
- Online One Week Expert Lectures on "Emerging Research Opportunities for Mechanical Engineers" Conducted by the Department Research Opportunities for Mechanical Engineers" Conducted by the Department of Mechanical Engineering, CMR Engineering College, Hyderabad, 10-08-2020 and 14-08-2020- 5 days
- Coursera successful completion of Introduction to Cybersecurity Tools & Cyber Attacks August 25, 2020 ,4 weeks of study
- Coursera successful completion of Control of Mobile Robots "August 21, 2020,7 weeks of study, 5-7 hours/week
- Coursera successful completion of Introduction to Sustainability, August 23, 2020,8-10 hours/week, 8 weeks.
- Coursera successful completion of The Sustainable Development Goals – A global, transdisciplinary vision for the future, August 19, 2020 3 weeks of study, 2-4 hours/week
- Coursera successful completion of Linear Regression with Python, August 25, 2020,2 hours.

- Coursera successful completion of Analysis of Variance with ANOVA in Google Sheets, August 25, 2020,2 hours.
- Coursera successful completion of Art of the MOOC: Experiments with Sound August 27, 2020, 8 weeks
- Coursera successful completion of AI For Everyone, August 19, 2020 4 weeks of study, 2-3 hours/week.
- Coursera successful completion of Python Data Structures, August 28, 2020,2-4 hours/week, 7 weeks.
- Coursera successful completion of Programming for Everybody (Getting Started with Python), August 24, 2020,2-4 hours/week, 7 weeks.
- Coursera successful completion of Machine Design Part I, August 14, 2020, This class includes 5 weeks of study, 5-7 hours/week.
- Coursera successful completion of Materials Data Sciences and Informatics, August 13, 2020, 5 weeks of study, 2-3 hours/week
- Coursera successful completion of Beyond the Sustainable Development Goals (SDGs): Addressing Sustainability and Development, August 14, 2020, 5 weeks
- Coursera successful completion of Six Sigma Tools for Define and Measure, August 13, 2020,4 weeks
- Coursera successful completion of Experimentation for Improvement, August 14, 2020,2 to 3 hours of lectures and assessments per week, over 5 weeks of study.
- Coursera successful completion of MOOC and Blended Learning, August 13, 2020,6 weeks.

- Coursera successful completion of Data Collection and Processing with Python, August 17, 2020, 3 weeks
- Coursera successful completion of Blended Language Learning: Design and Practice for Teachers, August 13, 2020,5 weeks of study, 5-6 hours per week.
- Coursera successful completion of Introduction to Programming with MATLAB, August 15, 2020,9 weeks, 3-4 hours/week
- Coursera successful completion of RPA Lifecycle: Deployment and Maintenance, August 10, 2020,4 weeks
- Coursera successful completion of Advanced Engineering Systems in Motion: Dynamics of Three Dimensional (3D) Motion, 6 weeks of material; 5 to 7 hours per week ,2 august
- Coursera successful completion of ART of the MOOC: Public Art and Pedagogy, August 1, 2020, 7 weeks.
- Coursera successful completion of Mastering Statics, August 7, 2020,7 weeks of study, 4-5 hours/week
- Coursera successful completion of Cybersecurity and Its Ten Domains, August 5, 2020,6 hours of videos, quizzes and peer review, 7 weeks.
- Coursera successful completion of RPA Lifecycle: Introduction, Discovery and Design, August 10, 2020,3 weeks
- Dr. PR. Ayyappan, Senior Assistant Professor
- ATAL FDP 'Exploring New Frontiers of Digital Transformations in Teaching-Learning'-JIS College of Engineering-West bengal-24 to 28th August 2020.

 BOSCH sponsored FDP Emerging trends in automotive embedded systems' Bangalore institute of technology, 12 to 14 August 2020.

Mr. S. Sivakumar, Assistant Professor - II

- ATAL FDP 'Exploring New Frontiers of Digital Transformations in Teaching-Learning'-JIS College of Engineering-West Bengal-24 to 28th August 2020.
- Attended the KLDA Workshop on Coding for Everyone - C Programming from 19.08.2020 to 31.08.2020.
- Attended the FDP ON Energy Efficiency and Audit: An Eco-Friendly Endeavour at GCT, Coimbatore sponsored by Govt of Tamilnadu from 17.8.2020 to 21,8,2020.
- Attended the ATAL-FDP on Exploring New Frontiers of Digital Transformation in Teaching-Learning organised by AICTE from 24.8.2020 to 27.8.2020.

Mr. M. A. Vinayagamoorthi, Assistant Professor - II

- Attended the KLDA Workshop on Coding for Everyone - C Programming from 19.08.2020 to 31.08.2020.
- "Attended NPTEL SERIES topic on DDH-2020 Training vertical 1 on 3.8.2020.
- Attended the KLDA Faculty Empowerment programme on Building You at 12.8.2020.
- Webinar by KCT "Copyright Guidelines for Online Teaching".-Webinar by Gregory Manoj dated on 14-08-2020.
- Attended Germinate Faculty Workshop conducted by project germinate from 27.8.2020 to 28.8.2020.

- Mr. T. Karuppusamy, Assistant Professor II
- Completed 7 weeks online course on coursera -Ferrous technology -II.
- Completed 5 weeks online course on coursera -Public speaking.
- Webinar on "AICTE AQIS faculty development for technical teachers training"
- Attended AIC-Annauniveristy incubation foundation
- Webinar on "Alumni Talk Series: Career Options for Engineers by Mr. Sriram Peruvamba"
- Webinar on KCT CPC Importance of students enrolling in a professional society
- Webinar on "Preparation strategy to get double digit rank in GATE"
- Webinar on "Copyright Guidelines for Online Teaching".

Dr. A. P. Arun, Assistant Professor - II

- FDP on "Nano science and nano technology current perspective" associated with institution of engineers, Nagpur.
- STTP on "Finite Element Method for Engineering Applications "03.08.2020 to 08.08.2020, Sai ram engineering college, Chennai.
- ONLINE COURSE "Embracing change" Harappa course 21.08.2020

Mr. M. Thirumalaimuthukumaran, Assistant Professor - II

 Attended Germinate Faculty Workshop conducted by project germinate from 13.8.2020 to 14.8.2020

- Completed a Seven Weeks online course on Creative Thinking Techniques and Tools for Success in course era- 24-07-2020- Imperial College London.
- Completed a Five Weeks online course on Introduction to Engineering Mechanics in course era- 29-07-2020- Georgia Institute of Technology
- Completed a Five Weeks online course on Research Data Management and Sharing in course era- 02-08-2020- The University of Edinburgh
- Completed a Ten Weeks online course on The Science of Well-Being in course era- 03-08-2020-Yale University
- Completed a Three Weeks online course on Advanced Manufacturing Process Analysis in course era- 04-08-2020- The State University of New York.
- Attended a Webinar Series on "Everyone Can Do Quality Research - Talk 07: Insights on Quality Research" on 06.08.2020, KIOT, Salem
- Completed a Four Weeks online course on Advanced Manufacturing Enterprise in course era- 07-08-2020- The State University of New York.
- Attended a Webinar on Pedagogy of Online Teaching and Assessment" 10th August, 2020 organized by the Department of Electrical and Electronics Engineering, PSG College of Technology, Coimbatore in association with The Institution of Engineers (India) Coimbatore local center
- Completed a Six Weeks online course on Initiating and Planning Projects in course era-12-08-2020- University of California, Irvine.
- Attended a Webinar Series on "Everyone Can Do Quality Research - Talk 10: Topology Optimization" on 27.08.2020, KIOT, Salem.

- Attended a Webinar Series on "Everyone Can Do Quality Research - Talk 08: My Research Journey" on 13.08.2020, KIOT, Salem.
- Completed a Four Weeks online course on Cyber Security in Manufacturing in course era-15-08-2020- The State University of Newyork.
- Completed a Four Weeks online course on Model-Based Systems Engineering in course era- 17-08-2020- The State University of Newyork
- Completed a Four Weeks online course on Digital Product Management: Modern Fundamentals in course era- 18-08-2020-University of Virginia.
- Completed a Four Weeks online course on Fundamentals of Management in course era-18-08-2020- University of California, Irvine
- Completed a Four Weeks online course on Effective Problem Solving and Decision Making in course era- 20-08-2020- University of California, Irvine
- Attended a Webinar Series on "Everyone Can Do Quality Research - Talk 09: A Bird's Eye View on Empirical Research" on 20.08.2020, KIOT, Salem.
- Completed a Four Weeks online course on Project Management: The Basics for Success in course era- 25-08-2020- University of California, Irvine.
- Attended a Webinar Series on "Patent Protection for Innovation Driven Academic Institutions" on 29.08.2020 by Turnip Innovations

Dr. V. Manivelmuralidharan, Assistant Professor - II

- Attended Five Days Online Faculty Development Program on "Advances in Thermal Science" during 17th-21th August 2020 organised by Kongunadu College of Engineering and Technology.
- Participated the Expert Webinar on "Art of Publishing Review & Research Articles" on 8th August, 2020 organised by Organised by the Department of Mechanical Engineering, Sri Venkateswara College of Engineering
- Participated in the TEQIP-III e-STC on "Exploring Potential: STC on 2020 research advances towards generating leading investigators ", held on August 24 th , 2020 to August 28 nd , 2020, organised by Department of Computer Science & Engineering, Dr B R Ambedkar National Institute of Technology, Jalandhar, Punjab, India
- Completed the module on Plagiarism on Thursday 06 August, 2020 conducted by Researcher Academy.
- Completed a module on Successful research grant applications – getting it right on Thursday 06 August, 2020 conducted by Researcher Academy.

Mr. K. Krishnamoorthi, Assistant Professor - II

- Proactively Participating in the One Week Online Short Term Course on "Reliability, Maintainability and Quality Issues in Process Industries" Organized at Dr. B. R. Ambedkar National Institute of Technology, Jalandhar, TEQIP-3.04-08-2020 - 08-08-2020.
- Coursera successful completion of Analysis of Variance with ANOVA in Google Sheets, August 25, 2020, 2 hours.

- Attended a Webinar Series on "Everyone Can Do Quality Research - Talk 08: My Research Journey" on 13.08.2020, KIOT, Salem.
- FDP on "Nano science and nano technology current perspective" associated with institution of engineers, Nagpur
- STTP on "Finite Element Method for Engineering Applications "03.08.2020 to 08.08.2020, Sai ram engineering college, Chennai
- ONLINE COURSE "Embracing change" Harappa course 21.08.2020
- Attended A two-hour webinar on 'TEAMS and CLASS ONE NOTE' organized by KCT, Coimbatore on 24th August Monday from 11 am to 1pm
- Attended "Faculty Training on Class Notebook" on Aug 27th, 2020 organized by Department of Mechanical Engineering, KCT from 5.30 pm to 8.00 pm.

## Mr. S. Ramanathan, Assistant Professor - II

- Attended webinar on "Preparation Strategy to Secure AIR DDR (DOUBLE DIGIT RANK) to join PSU'S on Aug 7, 2020 organized by Kumaraguru College of Technology, Coimbatore.
- Attended National Webinar on "Engineering Applications of Quantum Physics" on Aug 8th, 2020 organized by Kumaraguru College of Technology, Coimbatore."
- Attended Germinate faculty workshop on Aug 12th, 2020 and Aug 13th, 2020 organized by Kumaraguru College of Technology, Coimbatore.

- Attended A two-hour webinar on 'TEAMS and CLASS ONE NOTE' organized by KCT, Coimbatore on 24th August Monday from 11 am to 1 pm.
- Attended "Faculty Training on Class Notebook" on Aug 27th, 2020 organized by Department of Mechanical Engineering, KCT from 5.30 pm to 8.00 pm.

Mr. B. N. Sreeharan, Assistant Professor - II

- Webinar on 'Vidhya (Science of Happiness)' conducted by Sri Eshwar College of Engineering on 01-08-2020
- Webinar on 'Human Values and Professional Ethics' conducted by Saintgits College of Engineering, Kerala on 01-08-2020
- Webinar on 'Yoga The Natural Immunity Booster' conducted by Dr. NGP Institute of Technology on 02-08-2020
- Webinar on 'IT Network Infrastructure An Overview' conducted by Sri Eshwar College of Engineering on 05-08-2020
- Webinar on 'An insight into Lean Methodology' conducted by Sri Eshwar College of Engineering on 06-08-2020
- Webinar on 'Evolving as a Healthy Engineer' conducted by Sri Eshwar College of Engineering on 07-08-2020
- Webinar on 'Thinking Smarter Critical and Creative Thinking' conducted by Sri Eshwar College of Engineering on 08-08-2020
- Webinar on 'Parametric Design and Optimization Techniques using ANSYS' conducted by St. Joseph's Institute of Technology on 08-08-2020

- Webinar on 'Clear the Cloud around Microsoft Azure' conducted by Sreepathy Institute of Management & Technology, Vavanoor on 08-08-2020
- Webinar on 'Understanding Self' conducted by Sreepathy Institute of Management & Technology, Vavanoor on 09-08-2020
- Webinar on 'Changing the me; residing in me-Live Safe, managing (Stress, Anger, Fear & Expectation)' conducted by Sri Eshwar College of Engineering on 10-08-2020
- Webinar on 'Advances in Materials Engineering' conducted by Toc - H, Kerala on 10-08-2020
- Webinar on 'In-built Quality The Differentiator' conducted by Sri Eshwar College of Engineering on 11-08-2020
- Webinar on 'HOW TO CRACK CAMPUS PLACEMENTS' conducted by Sreepathy Institute of Management & Technology, Vavanoor on 12-08-2020
- Webinar on 'Enhancing Customer Experience using Al' conducted by Sri Eshwar College of Engineering on 13-08-2020
- Webinar on 'Study Engineering with Learn by doing practices' conducted by Sri Eshwar College of Engineering on 14-08-2020
- Webinar on 'Revised Bloom's Taxonomy (A Refresher Approach)' conducted by Narsimha Reddy Engineering College on 16-08-2020
- Webinar on 'Introduction to Polymers' conducted by Sri Eshwar College of Engineering on 18-08-2020
- Webinar on 'Tools for Research' conducted by Nehru Institute of Engineering and Technology on 19-08-2020

- Webinar on 'Smart Manufacturing and its insights' conducted by Sri Eshwar College of Engineering on 24-08-2020.
- Webinar on 'A Journey of an Entrepreneuship' conducted by Sri Eshwar College of Engineering on 28-08-2020
- Completed a course and got awarded as Innovative Educator, from Microsoft.
- Completed a course on Excel Fundamentals for Data Analysis, Macquarie University, Australia, COURSERA
- Participated in a FDP on Optimization Techniques for Mechanical Engineers conducted by Vignan Institute of Technology & Science, Hyderabad from 27-07-2020 to 01-08-2020
- Participated in a FDP on Python Programming conducted by Government Polytechnic College, Srirangam from 13-07-2020 to 18-07-2020

Dr. S. Balaji, Assistant Professor - I

- Participated in a FDP on "MOODLE Learning Management System", from 10th Aug to 14th Aug. 2020.
- Attended "Faculty Training on Class Notebook" on Aug 27th, 2020 organized by Department of Mechanical Engineering, KCT from 5.30 pm to 8.00 pm.
- Attended A two-hour webinar on 'TEAMS and CLASS ONE NOTE' organized by KCT, Coimbatore on 24th August Monday from 11 am to 1pm.
- Attended Germinate faculty workshop on Aug 12th, 2020 and Aug 13th, 2020 organized by Kumaraguru College of Technology, Coimbatore.

Mr. M. Rameshkumar, Assistant Professor - I

- Attended Webinar organized by Sri Eshwar College of Engineering, Coimbatore -01 August 2020 - "Vidya (Science of Happiness)"
- Attended Webinar organized by Sri Eshwar College of Engineering, Coimbatore -05 August 2020 - "IT Network Infrastructure - An Overview"
- Attended Webinar organized by Sri Eshwar College of Engineering, Coimbatore -06 August 2020- "An Insight to LEAN Methodology"
- "Attended Webinar organized by Sri Eshwar College of Engineering, Coimbatore -10 August 2020 - ""Changing the ME residing in ME Live Safe, Managing Stress, Anger, Fear & Expectation".
- Attended Webinar organized by Sri Eshwar College of Engineering, Coimbatore -13 August 2020 - "Enhancing Customer Experience using Al".
- Attended Germinate faculty workshop on Aug 12th, 2020 and Aug 13th, 2020 organized by Kumaraguru College of Technology, Coimbatore
- Attended A two-hour webinar on 'TEAMS and CLASS ONE NOTE' organized by KCT, Coimbatore on 24th August Monday from 11 am to 1pm
- Attended "Faculty Training on Class Notebook" on Aug 27th, 2020 organized by Department of Mechanical Engineering, KCT from 5.30 pm to 8.00 pm.

Mr. S. Rajesh, Assistant Professor - I

- Online One Week Expert Lectures on "Emerging Research Opportunities for Mechanical Engineers" Conducted by the Department of Mechanical Engineering, CMR Engineering College, Hyderabad, 10-08-2020 and 14-08-2020- 5 days
- One Week FDP ON Advanced Optimization Techniques for Research Problems Solving Organized by Mahatma Gandhi Institute of Technology, Hyderabad.
- Attended Webinar on Copyright guidelines on Online teaching, by KCT
- Attended Germinate faculty workshop on Aug 12th, 2020 and Aug 13th, 2020 organized by Kumaraguru College of Technology, Coimbatore
- Attended "Faculty Training on Class Notebook" on Aug 27th, 2020 organized by Department of Mechanical Engineering, KCT from 5.30 pm to 8.00 pm.

Mr. V. R. Navaneeth, Assistant Professor - I

- Participated in the One Week Online Short Term Course on "Reliability, Maintainability and Quality Issues in Process Industries" Organized at Dr. B. R. Ambedkar National Institute of Technology, Jalandhar, TEQIP-3.04-08-2020 -08-08-2020
- "MOODLE Learning Management System" conduted by Sridevi Women's Engineering College - CSE Department - between 10-08-2020 and 14-08-2020- 5days
- ATAL Academy sponsored online ATAL FDP -SVNIT Surat on "Blended Learning and flipped classrooms" 10-08-2020 and 14-08-2020- 5days

- Online One Week Expert Lectures on "Emerging Research Opportunities for Mechanical Engineers" Conducted by the Department of Mechanical Engineering, CMR Engineering College, Hyderabad, 10-08-2020 and 14-08-2020- 5 days
- Coursera successful completion of Analysis of Variance with ANOVA in Google Sheets, August 25, 2020,2 hours,
- Coursera successful completion of Machine Design Part I, August 14, 2020, This class includes 5 weeks of study, 5-7 hours/week.
- Coursera successful completion of Six Sigma Tools for Define and Measure, August 13, 2020,4 weeks
- Coursera successful completion of MOOC and Blended Learning, August 13, 2020,6 weeks
- Coursera successful completion of Data Collection and Processing with Python, August 17, 2020, 3 weeks

Mr. R. S. Mohankumar, Assistant Professor - I

- Attended AICTE Sponsored STTP on Composite Materials: Micr to Nano fabrication, Characterization and Modeling Including Additive Manufacturing at Rajalakshmi Engineering College from 27.07.2020 to 01.08.2020.
- Attended Online One Week Expert Lectures on "Emerging Research Opportunities for Mechanical Engineers" Conducted by the Department of Mechanical Engineering, CMR Engineering College, Hyderabad, from 10th -14th August, 2020.
- Completed online free course "EMBRACING CHANGE" in HARAPPA EDUCATION.
- Attended Webinar on Copyright guidelines on Online teaching, by KCT

 Attended "Faculty Training on Class Notebook" on Aug 27th, 2020 organized by Department of Mechanical Engineering, KCT from 5.30 pm to 8.00 pm

Dr. P. S. Samuelratnakumar, Assistant Professor - I

- AICTE Sponsored Online Short Term Training Programme on "Innovative Techniques for Sustainable Energy Development through Modeling of Mechanical Processes – (SERIES-I) by K.L.N. College of Engineering, Madurai
- AICTE-STTP Electric Vehicle: An Opportunity for INDIA
- Three Day National Level Faculty Development Programme on "Emerging Trends in Automotive Embedded Systems" from 12th -14th August 2020 by Bangalore Institute of D6:D15 Robert Bosch Engineering and Business Solutions Private Limited (RBEI) Bengaluru.
- Webinar on Copyright guidelines on Online teaching
- Webinar on Towards Excellence: Adaptation, Dissemination and Sustenance, NAAC
- International Webinar on "EXPLORATION OF MAIN GROUP COMPOUNDS FOR PROMOTING METAL-FREE TRANSFORMATION IN INDUSTRIES " St. Joseph's College of Engineering, Chennai
- Webinar on Characterization of two-dimensional materials with atomic force microscopy by Orford Instruments and Springer Nature
- Webinar on Strategic Footprints of Growth and Development by NAAC
- Webinar on MS TEAMS and One note, by KCT
- Virtual lab for Mechanical engineering by MATHWORKS

- One Week AICTE Sponsored Online Short Term Training Program (STTP) on "Recent Advances in Micro Electro Mechanical Systems (MEMS), Mechatronics and Their Applications for Future Challenges" by Mahatma Gandhi Institute of Technology, Hyderabad, Telangana
- FDP on Recent developments in Solar Energy Recovery and storage technologies
- Simulation Analysis for Mechanical Engineers with Autodesk Fusion 360
- Modeling and Design for Mechanical Engineers with Autodesk Fusion 360.

Mr. S. Prabhu (Jr), Assistant Professor - I

- Everyone can do quality research- talk 10: topology optimisation on 27.08.2020 by knowledge institute of technology
- Simplifying AI for different stakeholders-Week 20: NPTEL Special Lecture Series- Aug 25
- Webinar on everyone can do quality research talk 09: birds eye view on empirical research on 20.08.2020
- One week expert lecture on Emerging research opportunities for mechanical engineering conducted by CMR engineering college Hyderabad from 10th- 14th august 2020
- Innovation by Design-Week 17 : NPTEL Special Lecture Series- Aug 7.

Mr. B. Jeeva, Assistant Professor - I

 Attended webinar on "webinar on "Preparation Strategy to Secure AIR DDR (DOUBLE DIGIT RANK) to join PSU'S on Aug 7, 2020 organized by Kumaraguru College of Technology, Coimbatore.

- Attended National Webinar on "Engineering Applications of Quantum Physics" on Aug 8th, 2020 organized by Kumaraguru College of Technology, Coimbatore."
- Attended Germinate faculty workshop on Aug 12th, 2020 and Aug 13th, 2020 organized by Kumaraguru College of Technology, Coimbatore
- Attended A two-hour webinar on 'TEAMS and CLASS ONE NOTE' organized by KCT, Coimbatore on 24th August Monday from 11 am to 1pm
- Attended "Faculty Training on Class Notebook" on Aug 27th, 2020 organized by Department of Mechanical Engineering, KCT from 5.30 pm to 8.00 pm.

Mr. P. Karthi, Assistant Professor - I

- Webinar on everyone can do quality research talk 09: birds eye view on empirical research on 20.08.2020
- Everyone can do quality research- talk 10: topology optimisation on 27.08.2020 by knowledge institute of technology
- One week expert lecture on Emerging research opportunities for mechanical engineering conducted by CMR engineering college Hyderabad from 10th- 14th august 2020.
- Webinar on everyone can do quality research talk 06: Insight on quality research on 06.08.2020
- Short term training programme on composite materials: Micro to nano- fabrication, characterisation, and model king including additive manufacturing organised by Rajalakshmi engineering college chennai from 27th July to 01 august 2020

Mr. P. Pradeep, Assistant Professor - I

- Three days FDP on How to handle online classes effectively from 04th to 08th Aug 2020-Knowledge institute of Technology, Salem
- Webinar Series on "Everyone Can Do Quality Research - Talk 07: Insights on Quality Research" on 06.08.2020- Knowledge institute of Technology, Salem
- International E Conference on Multifunctional Advanced Materials on 07-08-20 - Mahatma Gandhi Arts, Science & Late N.P. Commerce College Armori
- Webinar Series on "Everyone Can Do Quality Research -Talk 08: My Research Journey" on 13.08.2020- Knowledge institute of Technology, Salem.

### Mr. P. D. Devan, Assistant Professor - I

- Attended Webinar on "Changing the me; Residing in me".
- Attended Webinar on "Inbuilt Quality-The Differentiator"
- Completed Coursera certification course on "Project Management: The Basics for Success" by university of California
- Attended Webinar on "Art of Publishing Review & Research Articles"
- Attended a webinar on "Innovation commercialization for Atmanirbar Bharat" on 14-08-2020 conducted by TURNIP Innovations Private Limited
- Faculty Development Program on "Advanced Optimization Techniques for Research Problem Solving"
- Participated in the Faculty Empowerment Program on "Building you" organized by KCT.

- Mr. P. Prashanth, Assistant Professor I
- Attended "Faculty Training on Class Notebook" on Aug 27th, 2020 organized by Department of Mechanical Engineering, KCT from 5.30 pm to 8.00 pm
- Attended A two-hour webinar on 'TEAMS and CLASS ONE NOTE' organized by KCT, Coimbatore on 24th August Monday from 11 am to 1pm
- Attended Germinate Faculty Workshop
- Attended a webinar on copyright guidelines for online teaching.

Mr. K. Manikandaprasath, Assistant Professor - I

- Participated in TN Government sponsored eFDP 'Energy Efficiency and Audit: An Eco-Friendly Endeavour' 17.8.2020 to 21September 2020 at GCT, Coimbatore
- Participated in TEQIP sponsored 5 day e-Short term course 'Exploring Potential: STC on 2020 research advances towards generating leading investigators' 24.8.20 to 28.8.2020 at NIT-Jalandar
- Attended a webinar on "Innovation commercialization for Atmanirbar Bharat" on 14-08-2020 conducted by TURNIP Innovations Private Limited
- Faculty Development Program on "Advanced Optimization Techniques for Research Problem Solving"
- Participated in the Faculty Empowerment Program on "Building you" organized by KCT
- Attended Germinate faculty workshop on Aug 27th, 2020 and Aug 28th, 2020 organized by Kumaraguru College of Technology, Coimbatore

- Attended A two-hour webinar on 'TEAMS and CLASS ONE NOTE' organized by KCT, Coimbatore on 24th August Monday from 11 am to 1pm
- Attended "Faculty Training on Class Notebook" on Aug 27th, 2020 organized by Department of Mechanical Engineering, KCT from 5.30 pm to 8.00 pm
- STTP on "Finite Element Method for Engineering Applications, 03.08.2020 to 08.08.2020, Sai ram engineering college, Chennai.

Mr. S. Suresh, Assistant Professor - I

- One week FDP on Optimization techniques for Mechanical Engineers- Vignan institute of Tech & Science from 27-07-20 to 01-08-20
- National level Quiz on Mechanics of solids on 02.08.20- Kuppam Engineering college
- National level online Technical Quiz on Machine Tools on 02.08.20- Laki reddy Bali reddy college of Engg
- Six days FDP on Recent Developments in Chemical Research for Societal Applications from 03-08-20 to 08-08-20- Yogi vemana university, Kadapa
- National level E quiz on Production Engg on 03-08-20- Vaagdevi College of Engg
- Three days FDP on How to handle online classes effectively from 04th to 08th Aug 2020-Knowledge institute of Technology, Salem
- Webinar Series on "Everyone Can Do Quality Research - Talk 07: Insights on Quality Research" on 06.08.2020- Knowledge institute of Technology, Salem

- International E Conference on Multifunctional Advanced Materials on 07-08-20 - Mahatma Gandhi Arts, Science & Late N.P. Commerce College Armori
- Webinar on "Liquid Crystals and Nanomaterials for Display Technology" conducted on 08-08-2020, organised by Department of Basic Sciences & Humanties, Vignan's Institute of Management & Technology for Women, Hyderabad."
- Webinar on "Experimental Investigation and Non Linear Finite Element Analysis of Pipe Elbow Subjected to Combined Loading " organized by the Department of Mechanical Engineering, Basaveshwar Engineering College (Autonomous), Bagalkot, held on 8th August 2020
- National level FDP on Emerging trends in Automotive Embedded systems on 12th to 14th Aug 2020- Bangalore institute of Technology
- Webinar Series on "Everyone Can Do Quality Research -Talk 08: My Research Journey" on 13.08.2020- Knowledge institute of Technology, Salem
- "Online Faculty Development Program on Emerging Fields in Thermal Engineering Organized from 13th to 15th August 2020 by the Department of Mechanical Engineering Providence College of Engineering, Chengannur"
- Webinar on "Dielectric materials and their characterization studies in the microwave frequency region"" conducted on 14-08-2020, organised by Department of Basic Sciences & Humanities, Vignan's Institute of Management & Technology for Women, Hyderabad.
- Online webinar on "Research Developments in Composite Materials" held on 15th August 2020 organized by Department of Mechanical Engineering, Kuppam Engineering College, Kuppam.

- Webinar on "Laser Cooling of Solids" conducted on 20-08-2020, organised by Department of Basic Sciences & Humanities, Vignan's Institute of Management & Technology for Women, Hyderabad."
- Webinar Series on "Everyone Can Do Quality Research - Talk 09: A Bird's Eye View on Empirical Research" on 20.08.2020 -Knowledge institute of Technology, Salem
- Online webinar on "How to publish paper in SCI/Reputed Journals" organized by Department of Electronics and Telecom. Engg. of GHRIET, NAGPUR on 24-08-2020
- AICTE sponsored National level five days Virtual STTP on industry 4.0 from 24th to 28th Aug 2020 - Nitte Meenakshi institute of Technology, Bangalore
- Webinar Series on "Everyone Can Do Quality Research - Talk 10: Topology Optimization" on 27.08.2020- Knowledge institute of Technology, Salem
- Online E Quiz on Thermal Engg organized by Sri Ranganathar institute of Polytechnic college on 29.08.20
- Webinar on "Photochemical aspects of 3-Hydroxy-chromen-4one and it's derivatives" conducted on 29-08-2020, organised by Department of Basic Sciences & Humanities, Vignan's Institute of Management & Technology for Women, Hyderabad.

#### **A COUPLE OF EXCEL TIPS**

#### Switch Between Excel Spreadsheets Only

It's very frustrating when we have multiple applications open (such as Excel, PowerPoint, Word, Chrome, and IE) and you want to switch between Excel spreadsheets only. No matter how efficient you are, this can get on to your nerves in a few minutes. In this tip, let me show you how to handle this.

Use Control + Tab to toggle between open spreadsheets only (keep the Control button pressed while you press Tab button to switch)

That's it! It's this simple and will save you a lot of time

Note: While most of the people are addicted to ALT + Tab, the drawback is that it does NOT differentiate between different applications. So if you have 2 excel workbooks open along with a Chrome/FireFox/IE browser window, it will toggle one by one through each of these. Control + Tab will toggle between open Excel workbooks only.

#### **Quisckly Make a Copy of a Worksheet**

A lot of times you may need to quickly make a copy of the worksheet in which you are working.

Normally, one would right-click on the tab and select move or copy, and then check the "Create a Copy" check box. While there is nothing wrong in this, here is a faster way to do this.

How to:

- 1. Select the worksheet tab for which you want to make a copy.
- 2. Press and hold the Control Key.
- 3. Left-click on the worksheet tab for which you want to create a copy (a plus sign within a sheet icon will appear next to the cursor).
- 4. While still holding the Control key and the Left button of the mouse, drag the tab within the worksheet.
- 5. Leave the mouse left-button and then leave the Control Key.

This would create a copy of the worksheet in the same workbook.

### Courtesy: http://TrumpExcel.com

B. N. Sreeharan, AP (II)

## **STUDENT ACTIVITIES**

### **IMMERSION PROGRAM: DAY 1**

Mechanical Engineering Association conducted Immersion Programme for the Incoming Second Years on 29<sup>th</sup> August 2020 and 31<sup>st</sup> August 2020.

This Immersion Programme helped Students feel excited about starting their college life in the Department and smooths the transition to campus life and the independence that comes with it. This Immersion Programme served as a chance for students to learn how thing goes and meet seniors as well as faculty and staff members.

As a start to this Immersion Programme, Ms. Madhumitta P – 18BME064, Welcomed the 2<sup>nd</sup> years to the Programme. Welcome address was delivered by Mr. Arun K, President – MEA and Dr. C. Velmurugan, HoD Mechanical Engineering. Academic Co-ordinator Mr. T Sukumar gave an insight about Academic Procedures and opportunities available in Mechanical Engineering Department.



Mr. Jagan Srinivasan, a 2011 passed out alumni who is currently the project Manager at Valeo, shared experience working in Automotive field in North America and India and shared his perspective on soft skills and attitude necessary to find employment in general and automotive field in particular. He Provided an Insights on the scope/prospects of the course, work experiences, and career guidance. Mr. Aswath D - 17BME147 along with his team conducted an activity Named "MY DREAM" . Students wrote a letter to themselves on how he/she will utilize their upcoming college days, goals and dreams for the next 5 years of life.

Ms. Nandhini V – 18BME068 gave introduction about the faculties in Mechanical Engineering Department and their Specialization. Following her, Mr. Srivathsan – 18BME088 introduced the lab facilities and Domains in Mechanical Engineering.

Dr. B Senthil Kumar – Associate Professor, about Curriculum and Mapping of the Current Semester. Dr. Thirumurugaveerakumar S – Assistant Professor III, briefed about the resources and facilities available to the students. SAE, Library, Forge, KC.IRI, oversea opportunities were discussed.

Mr. Athi Srinivasan from Garage, Mr. Brathikan from Ré, Mr. Nirosh Kumar from iQube introduced about RiG, what are the things that are currently being done in RiG, Recruitment Procedure, Scope and much more.

Mr. Deepan Issac – 18BME050 along with his team conducted a Personality test and Career Guidance Test. These tests were a self-reflection and understanding, for job placement, and for learning how to better interact with others in a team or work group.

Mr. Deepan Issac – 18BME050 along with his team conducted an Activity. Ideathon, is an initiative to provide students a platform to solve some of the pressing problems we face in our daily lives, and thus inculcate a culture of product innovation and mindset of problem solving. These problems must be assessed and were asked to submit it as a presentation to their respective class advisors.

As an end for Day - 1 Immersion Program, Mr. Praveen B - 18BME092, Delivered the Vote of Thanks.

## **STUDENT ACTIVITIES**

### **IMMERSION PROGRAM: DAY 2**

Day 2 of the Immersion Program began with a refreshing session where the MEA team interacted with the students and got massive outbreaking responses. This was carried out by Mr. Sreejith – 18BME082.

Dr. V.R. Muruganantham – Associate Professor and Mr. Rajesh – Assistant Professor I the faculty Coordinators of MEA, addressed the students about the Mechanical Engineering Association, Office Bearers, roles and responsibilities, Achievements in the past, Future Plans and much More. They also explained the recruitment procedure for the students for being a part of MEA team in the fore coming years.

Mr. Pradeep P – Assistant Professor I, briefed about the placement statistics of Mechanical Engineering Department. He also listed the Core companies and statistics on salary packages, number of students placed across product, core, management and IT services. He also enumerated the key skills and industry related requirements for placements.

Dr. N. Sangeetha – Associate Professor and Higher Studies Coordinator told about the Opportunities and Scope for doing masters abroad/India, attempting exams like GATE, CAT, GRE, TOEFL etc. She too added about Shankar IAS Academy that is currently working towards student's beneficiary for clearing IAS exams.



Mr. Deepan Issac – 18BME050, Mr. Aswath – 17BME147 along with MEA team conducted quiz competition for the students on facts/information about the department that has been told so far in the immersion Program. This quiz was a time lapse event and only 20 seconds were given to answer the questions. Mr. Mohan – 19BME017 topped the competion followed by Mr. Jaswanth Kumar – 19BME050 securing 2<sup>nd</sup> position and Mr. Hemavijay – 19BME025 securing 3<sup>rd</sup> Position.

Resources and Project works were briefed out by Mr. R.S. Mohan Kumar – Assistant Professor I, exhibiting final year/noteworthy projects and Experiences regarding the research and experiments that students had performed earlier. Ongoing projects and research work and opportunities were also discussed.

Dr. S. Bhaskar – Associate Professor handled a workshop on writing research and technical paper and career guidance through a video mode. This workshop gave a keen insight to the students regarding career guidance and goals.



Clubs and Forums are important part of a student's life in college. Mr. Joshua Peter – 18BME082 and Ms. Madhumitta P – 18BME064 explained about various clubs and forums running inside KCT.

As an end for Day – 2 Immersion Program, Mr. Praveen B – 18BME092, Delivered the Vote of Thanks.

## **STUDENTS ARTICLES**

## **THE FUTURE OF 3D PRINTING**



### Mr. VIVIEN WILFRED - 19BME009 2<sup>nd</sup> Year Mechanical A

3D printing is one of the developing technologies in the field of mechanical engineering. The fact that this technology has grown a lot over the past few years is undeniable. 3D printing is slowly making its way into the advanced technologies and has already captured an irresistible place in the field of manufacturing. What can be done with the 3D printing isn't a science fiction anymore, it is a reality.

The usage of 3D printers is increasing at a rapid pace all over the industries. Several industries including health care, automotive, aerospace and defence have been experiencing impactful productions and rise in business transformations within the key areas of their business with the help of these additive technologies and 3D printing. For instance, in the field of aerospace engineering, minute and important parts are manufactured with the help of this technology.

This technology allows the engineer to trim the weight, reduce the number of components to be attached and eases the assembling process. These technologies give the engineer necessary freedom and flexibility in creating their products and also maintain the rate of production at the same time. In a recent survey, it is found that the number of companies utilizing 3D printing as well as the variety of applications rocketed dramatically; the percentage of companies using additive to manufacture production parts rose from 27% to 52%, bridge production increased from 23% to 39%, and repair went from 14% to 38%.

In the past two years, automotive, transportation and heavy equipment industries have been the most frequent users of the technology. And in the future, almost all industries will depend on the aid of 3D printing technology.

The future of 3D printing is bright and is an increasingly important pillar in the manufacturing renaissance. With the increased usage of the technology, conversations about additive manufacturing are a lot more tangible than they were just two years ago. Before, we were debating whether there is a financial or technological case to convert from traditional, high volume processes to an additive printer. Now, there are growing numbers of use-cases and demonstrable business benefits proving that additive can be used as a mainstream manufacturing technology. What can be done with 3D printing isn't theoretical anymore; it's fact.

Producing a part on-demand with 3D printing enables manufacturers to print parts as needed instead of pulling the part from a supply warehouse. On-demand production will help companies realize huge reductions in inventory and storage costs. In the automotive industry, for example, spare parts inventory could be reduced by 90% with 3D printing, according to a report from MIT.

Today, we're moving from a capability conversation to capacity conversation. But in the future, 3D printing will be able to support all facets of new product introduction (NPI) where scaling volume to achieve price points will become decreasingly important.

## **BIO MIMICS**



### Mr. PADRINARAYAN R - 19BME010 2<sup>nd</sup> Year Mechanical A

Bio Mimic is the emulation of the models, systems, and elements of nature for the purpose of solving complex problems. Started in the latter half of the 20<sup>th</sup> century, using the idea of nerve propagation of squid for his doctoral research by Otto Schmitt.

In the following years many researchers found it to be a new area of interest. From then, there has been many technologies and innovations inspired from the biological world. There been new innovations in every field of research, starting from locomotive to optics. We have been talking about giving back to nature but still we tend to take something from it, at least now it can be something moral for both mankind and Bio-diversity around us.

Taking the problem of superfast and efficient transportation, it has been very difficult to run efficient as well as fast trains. The problem was solved in the Shinkansen Train using the Kingfisher's structure. This helped with higher efficiency and avoiding noise pollution when entering and exiting the tunnels. This big problem was solved by a small and easy solution of extending the front part of the train like the beak of Kingfisher which aerodynamically helped the train's body reduce the drag.

Temperature and sudden climatic change have been an issue in the recent past. Termites have helped us solve this issue effortlessly by just varying minimal design changes. Termites live in huge mud temples built by them for their space. Those mud temples have intricate vents which help them remain cool when its hot out and vice-versa. This helps us in many ways. The amount of energy required for air conditioning is limitless due to increasing heat inside buildings. Secondly the continuous use of A/C alters body conditions and restrict us from avoiding it after a particular period. Zimbabwe's Eastgate centre recently adapted this type of design to reduce heat inside during day and to balance the temperature in the night. It was mastered by Architect Mick Pearce.

"Plant trees and save the Earth" this slogan is something which we often see everywhere, but there is something which saves Earth by not planting trees but doing what the tree does, that is reducing the carbon level on the Earth. The air which we exhale has  $CO_2$  which is low dense in nature than the carbon emissions on vehicles and power plants. Exhaled air is caught using carbon absorbers and the absorbed carbon dioxide is buried underground. Just for the reason of innovating  $CO_2$  recycling, we shouldn't stop planting new trees.

Like the above examples there are millions of unsolved problems around us which can be resolved easily. From agriculture to self-healing materials there have been many natures encouraged solutions. Simple solutions can help us live better.

I think this is sustainable development because this helps us solve our problems from what is around us and let us live gracefully without the guilt of disturbing the nature. We shouldn't innovate something which is hazardous to Earth, thus making the result of innovation null.



COIMBATORE - 641 049

#### **Department of Mechanical Engineering**

#### **INSTITUTE VISION:**

The vision of the college is to become a technical university of International Standards through continuous improvement.

#### **INSTITUTE MISSION:**

Kumaraguru College of Technology (KCT) is committed to providing quality Education and Training in Engineering and Technology to prepare students for life and work equipping them to contribute to the technological, economic and social development of India. The College pursues excellence in providing training to develop a sense of professional responsibility, social and cultural awareness and set students on the path to leadership.

#### **DEPARTMENT VISION:**

To emerge as a centre, that imparts quality higher education through the programme in the field of Mechanical Engineering and to meet the changing needs of the society.

#### **DEPARTMENT MISSION:**

The department involves in sustained curricular and co-curricular activities with competent faculty through teaching and research that generates technically capable Mechanical Engineering professionals to serve the society with delight and gratification.

#### **B. E. MECHANICAL ENGINEERING**

#### PROGRAM EDUCATIONAL OUTCOMES (PEO's):

- **PEO 1** : Graduates will take up career in manufacturing and design related disciplines.
- **PEO 2** : Graduates will be involved in the execution of Mechanical Engineering projects.
- **PEO 3 :** Graduates will take up educational programme in mastering Mechanical sciences and management studies.

#### PROGRAM OUTCOMES (PO's):

- 1. **Engineering knowledge:** Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
- Problem analysis: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
- 3. Design/development of solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

**MEXPRESS** 

- 4. Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
- 5. Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
- 6. Problem analysis: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
- 7. Design/development of solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
- 8. Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
- 9. Individual and teamwork: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
- **10. Communication:** Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
- **11. Project management and finance:** Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
- **12. Life-long learning:** Recognize the need for and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

#### **PROGRAM SPECIFIC OUTCOMES (PSO's):**

- 1. Apply the fundamentals of science and mathematics to solve complex problems in the field of design and thermal sciences.
- 2. Apply the concepts of production planning and industrial engineering techniques in the field of manufacturing engineering.

#### **M. E. INDUSTRIAL ENGINEERING**

#### **PROGRAM EDUCATIONAL OBJECTIVES (PEO's):**

- **PEO 1 :** Graduates will be mid to higher level management / engineering professionals with responsibilities in engineering management, data analysis and business operations.
- **PEO 2** : Graduates will be engineering professionals, and technology leaders who would manage such functions as plant engineering, production, supply chain and quality management.
- **PE03** : Graduates would function as educators or researchers in academic institutions.

#### **PROGRAM OUTCOMES (PO's):**

- **P01 :** An ability to independently carry out research /investigation and development work to solve practical problems.
- **P02** : An ability to write and present a substantial technical report/document.
- **PO3** : Students should be able to demonstrate a degree of mastery over the area as per the specialization of the program. The mastery should be at a level higher than the requirements in the appropriate bachelor program.

#### **PROGRAM SPECIFIC OUTCOMES (PSO's):**

- **PS01 :** Graduates able to apply the engineering management and data management concepts in industrial engineering areas.
- **PS02** : Graduates able to apply industrial engineering skills and knowledge to manage the functions of production and supply chain management.

### M. E. CAD/CAM

#### **PROGRAM EDUCATIONAL OBJECTIVES (PEO's):**

- **PE01 :** Graduates excel in Professional career and/or higher education or/ research by continuously updating the knowledge and skill in the fields of Computer Aided Design and Manufacturing.
- **PEO2 :** Graduates can analyze the complex problems using advanced modelling and analysis tools and thereby solve problems related to product design and manufacturing area.
- **PE03 :** Graduates work individually and also in a team with effective communication skills and pursue lifelong learning.

### **PROGRAM OUTCOMES (PO's):**

- **P01 :** An ability to independently carry out research /investigation and development work to solve practical problems.
- **PO2** : An ability to write and present a substantial technical report/document.
- **P03** : Students should be able to demonstrate a degree of mastery over the area as per the specialization of the program. The mastery should be at a level higher than the requirements in the appropriate bachelor program

#### **PROGRAM SPECIFIC OUTCOMES (PSO's):**

- **PS01 :** Graduates will be able to apply the knowledge and skill in solving the real-time problems in the Computer Aided Design and Manufacturing field.
- **PS02** : Graduates will be able to analyse complex problems and provide solutions using advanced tools in product design and manufacturing area.