



KNOW A FAMOUS MECHANICAL ENGINEER-SERIES 13



Willis Carrier

Willis Haviland Carrier (November 26, 1876 – October 7, 1950) was an American engineer, best known for inventing modern air conditioning. He studied at Cornell University, graduating in 1901 with a degree of Bachelor of Science in Engineering. Carrier invented the first electrical air conditioning unit in 1902. In 1915, he founded Carrier Corporation, a company specializing in the manufacture and distribution of heating, ventilation, and air conditioning (HVAC) systems.

VISION

“To become a centre of excellence in Mechanical Engineering, producing innovative and creative mechanical engineers to meet the global challenges”

MISSION

- To provide a platform to the students towards attaining quality education in Mechanical Engineering.
- To educate students about professional & ethical responsibilities and train them to build leadership and entrepreneurship qualities for their career development.
- To create opportunities and guide students in acquiring career oriented jobs in the field of Mechanical Engineering

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THE DEPARTMENT OF MECHANICAL ENGINEERING OF VJEC IS NOW NBA ACCREDITED



Dear Madam/Sir,

This has reference to your application I.D. No. 3684- 25/04/2019 seeking accreditation by National Board of Accreditation in Tier-II for its UG Engineering programs offered by Vimal Jyothi Engineering College, Jyothi Nagar, Chemperi, P.O., Kannur, Dt., Kerala-670632.

An Expert Team conducted on-site evaluation of the programs from 31st January- 02nd February,2020. The report submitted by the Expert Team was considered by the concerned Committees constituted for the purpose in NBA. The Competent Authority in NBA has decided to approve the accreditation status of the following programs from the Academic Years 2020-2021 to 2022-2023 i.e. up to 30-06-2023:

1. Mechanical Engineering

The Competent Authority in National Board of Accreditation has decided to approve the accreditation status of the Mechanical Engineering program from the Academic Year 2020-2021 to 2022-2023 i.e. up to 30-06-2023.

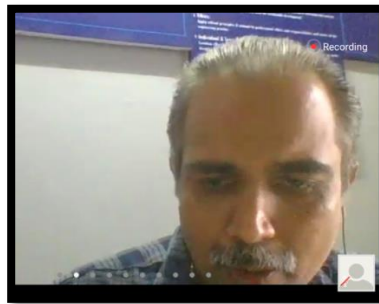
Accreditation is a process of quality assurance and improvement, whereby a programme in an approved Institution is critically appraised to verify that the Institution or the programme continues to meet and/or exceed the Norms and Standards prescribed by regulator from time to time. It is a kind of recognition which indicates that a programme or Institution fulfils certain standards.

The purpose of the accreditation by NBA is to promote and recognize excellence in technical education in colleges and universities - at both the undergraduate and post graduate levels. Institutions, students, employers, and the public at large all benefit from the external verification of quality provided through the NBA accreditation process. They also benefit from the process of continuous quality improvement that is encouraged by the NBA's developmental approach to promote excellence in technical education.

Some of the major benefits enrolled students receive by attending an accredited institution / program are as follows:

- Accredited institution / program offers the highest quality education available;
- Accredited institution / program strengthens consumer's confidence, employers value degrees of an accredited program the most;
- Accreditation helps institutions to know their strengths, weaknesses and opportunities, pushes them to continuously improve their programs and give them a new sense of direction, identity and targets; and
- Accredited institution / program demonstrates accountability to the public, commitment to excellence and continuous quality improvement.

**INTERNATIONAL CONFERENCE ON TECHNOLOGICAL CONVERGENCE IN ENGINEERING,
ENERGY, AND SUSTAINABILITY (ICTCEES-2020): 18-07-2020 and 19-07-2020**




II International Conference on Technological Convergence in Engineering, Energy, and Sustainability (ICTCEES-2020) was conducted online by the Department of Mechanical Engineering, VJEC on 18-07-2020 and 19-07-2020. Dr. Donghoon Shin (Professor, School of Mechanical Engineering, Kookmin University, Seoul, Korea) inaugurated the event. Dr. Mohammed AL-Saidi (Professor, College of Applied Sciences-Sohar, Ministry of Higher Education, Oman) and Mr. B Raha (General Manager, (R&D, Metallurgy) Peekay Steel Castings (P) Ltd, Calicut) were the Guest of Honors. Dr. S Christopher Ezhil Singh (Professor, ME) was the chief coordinator under the guidance of Dr. Benny Joseph (Principal, VJEC) and Cdr. (retd.) Raju K Kuriakose (HOD, ME). Dr. T D John (Professor ME and Dean Research, VJEC) and Dr. P Sridharan (Associate Professor, ME) were the conveners. UG, PG scholars, research scholars, academicians and technocrats submitted papers to ICTCEES 2020.

150 papers were received from authors. 200 delegates, from different parts of India and abroad, participated in the event. 13 sessions were conducted in a parallel manner, with two coordinators and two chairs for each session. All the stakeholders viz. researchers, industry experts, R&D personals, manufacturers, students and faculty gathered in the platform, discussed and shared their views and expertise in the different segment of the technologies, thereby an industry could attract and breed prospective talents from the platform and bring it to development and adoption of the technology. Keeping in view the above facts and industry demands Mechanical, Civil, Electrical, Electronics, Computer Science, and Biomedical areas were considered for discussion.

FDP IN 'NANOCOMPOSITES AND NANOMATERIALS & IT'S CHARACTERIZATION': 08-06-2020 to 22-06-2020

**FUNCTIONAL & STRUCTURAL
NANOCOMPOSITES**


Soney Varghese
 Associate Professor
 Nanomaterials and Devices Research Laboratory
 School of Materials Science and Engineering
 NIT Calicut

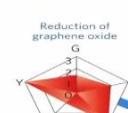
Graphene

Graphene is one atom thick 2D layer of carbon atoms with sp^2 hybridization that are connected in a hexagonal lattice structure

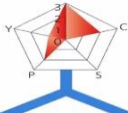
Single layer graphene has extraordinary properties which include:
 Ultimate tensile strength of 130 GPa,
 Young's modulus of 1 TPa,
 Surface area of 2600 m²/gm,
 Thermal conductivity between 2000–4000 Wm⁻¹K⁻¹.

[Ref.] Nat Mater, 14 (3) (2015), pp. 271-279


Reduction of graphene oxide



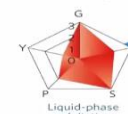
Mechanical exfoliation



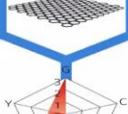
Synthesis on SiC



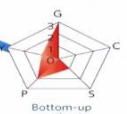
Liquid-phase exfoliation



Chemical vapour deposition



Bottom-up synthesis



The key characteristics of the most common graphene production methods in a scale of 0–3; (G) refers to the graphene quality, (C) refers to the cost of production (a low value corresponds to high cost of production), (S) refers to the scalability, (P) refers to the purity and (Y) refers to the yield of each preparation route [Ref]

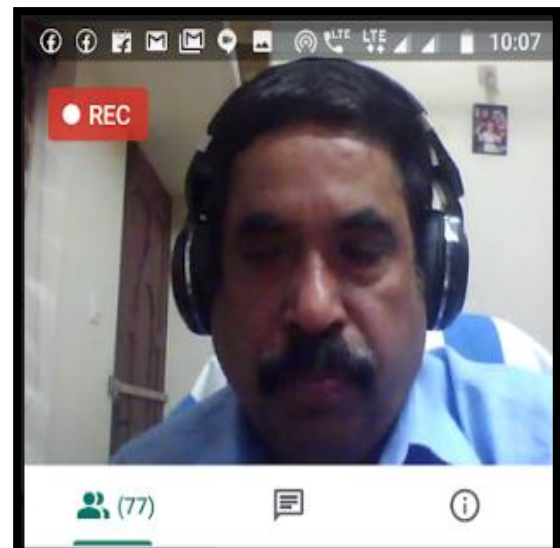
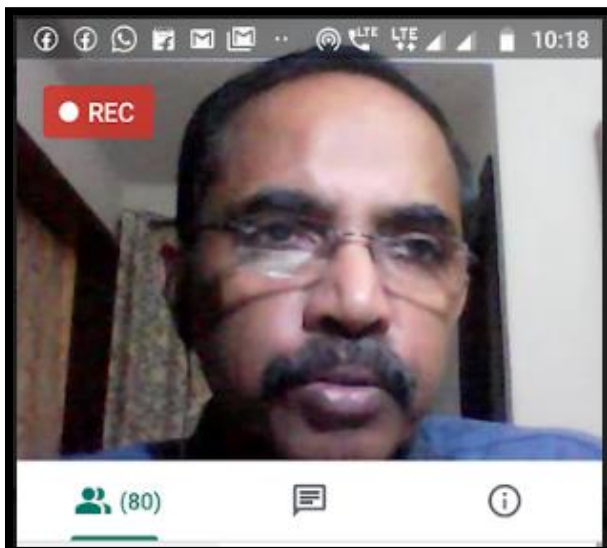
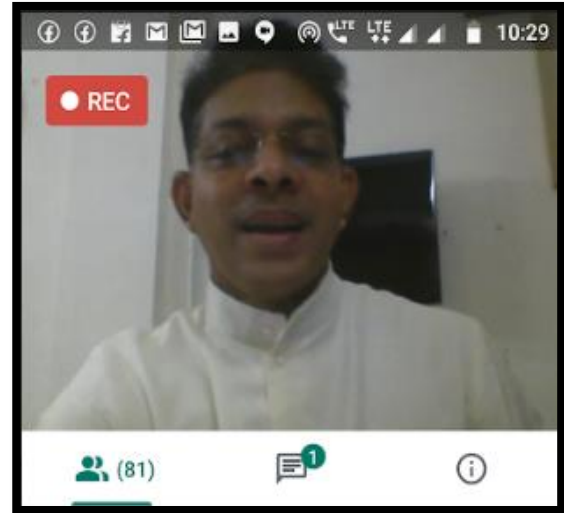
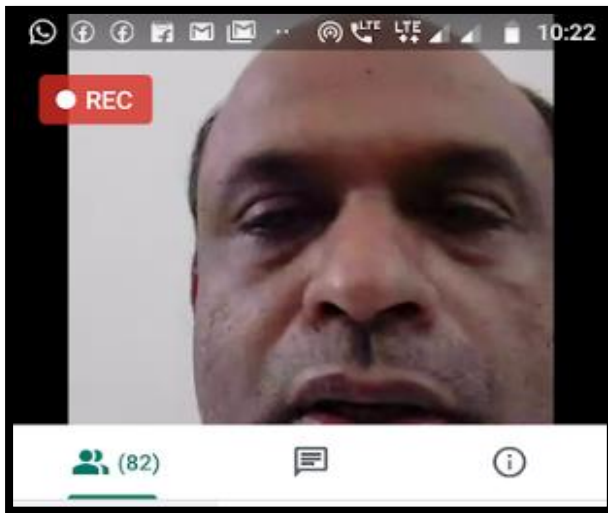
O = None or N/A
 1 = Low
 2 = Average
 3 = High

The Two Weeks Faculty Development Programme on “Nano composites and Nanomaterials and it’s Characterization” was organized online by Department of Mechanical Engineering, Vimal Jyothi Engineering College, Chemperi from 08th June 2020 to 22nd June 2020. The FDP was convened by Dr. S.Christopher Ezhil Singh, Professor, Department of Mechanical Engineering.

The sessions were handled by resource persons like Prof. (Dr.) Nandakumar Kalarikkal Director & Professor International and Inter University Centre for Nanoscience and Nanotechnology, Dr. Ajay Kumar, Assistant Professor Department of Mechanical Engineering Indian Institute of Technology (IIT) Tirupati, Dr. Kaviya. S, SERB-National Post-doctoral fellow Department of chemical engineering Indian Institute of Science (IISc) Bangalore Dr. S.S. Sreejakumari, Senior Scientist, CSIR – (NIIST) Thiruvananthapuram. 88 participants were there for the FDP.

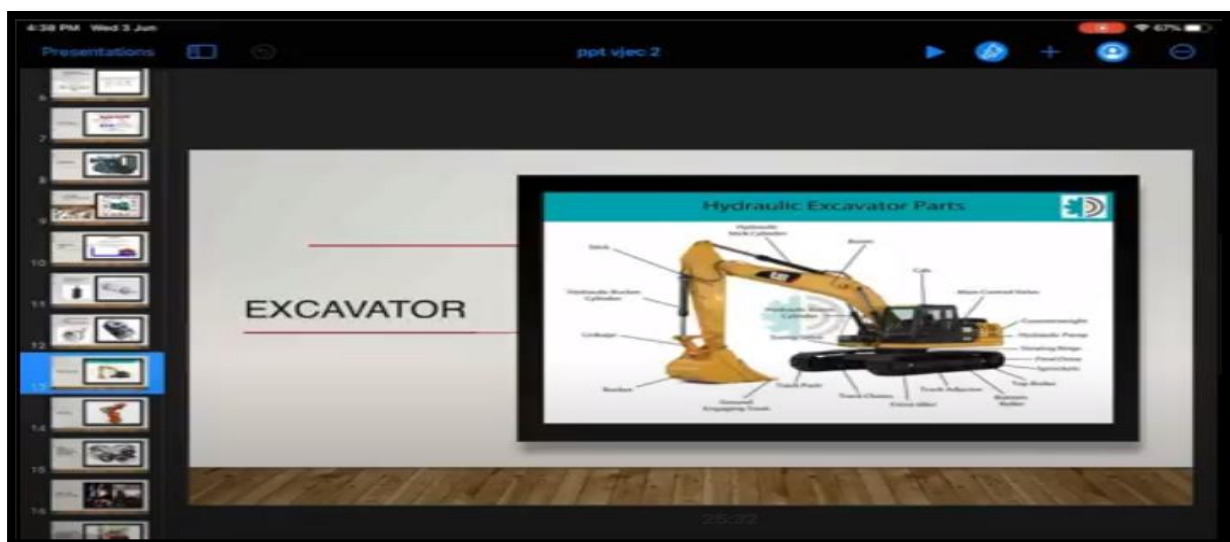
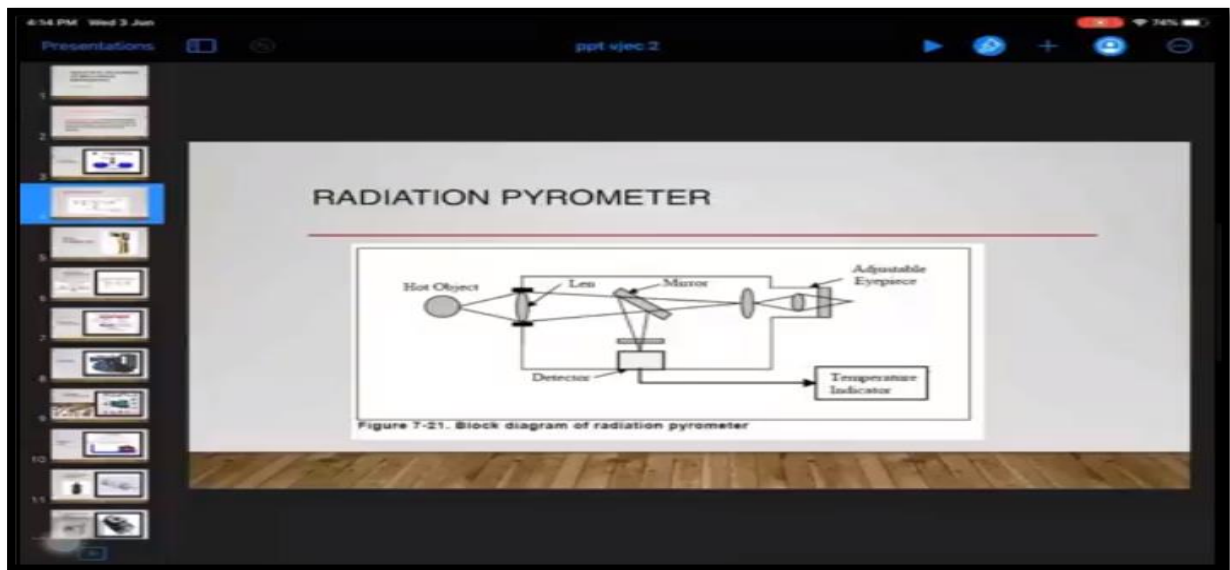
This Faculty Development Programme provided wide opportunity to the Faculty members from Physics, Chemistry, and Engineering disciplines to know the research experiences of the resource persons and the testing facilities available in various institutes in the area of Nano composites and Nano materials and their characterization. Faculty member from in out of states participated in the programme.

**FAREWELL TO 2016-20 BATCH STUDENTS OF MECHANICAL ENGINEERING:
15-07-2020**



The Department of Mechanical Engineering, Vimal Jyothi Engineering College Chemperi, conducted an meeting of farewell to final year students (2016-20 batch), online, on 15-07-2020 from 10 am to 11.30 am. The meeting was conducted using Google meet platform. There were around one hundred participants including representatives from the management, staff and students. Cdr. Raju K.Kuriakose (Retd.), Head of Mechanical Engineering Department, VJEC Chemperi, welcomed the participants. Dr. Benny Joseph, Principal, VJEC Chemperi, delivered the presidential address. Rev. Fr James Chellamkottu, Manager, VJEC and VJIM, inaugurated the program and delivered the inaugural address. Mr. Sebastian Puthenpura, Public Relation Officer (P.R.O.), VJEC Chemperi delivered felicitation. Rev. Fr. Jinu Vadakkemulanjanal, former Administrator, VJEC, showered words of blessings to students. The tutors of the batch and other faculty interacted with students. Students shared their experiences at Vimal Jyothi, in the meeting. Ms. Aswathi Manoharan compered the session.

WEBINAR ON 'INDUSTRIAL RELEVANCE OF MECHANICAL ENGINEERING': 03-06-2020



The Department of Mechanical Engineering, VJEC conducted a webinar on 'Industrial relevance of Mechanical Engineering', was conducted on 3rd June 2020 from 4.00 pm to 5.00 pm . The webinar was conducted for second semester students of Mechanical Engineering. Mr. Christin T Joseph , Founder, Black Bear Automations was the resource person. The convener of the programme was Cdr. (retd.) Raju K Kuriakose, Head of Mechanical Engineering Department. The session was coordinated by Coordinators Mr. Appu Kurian (Assistant Professor, ME) , Mr. Shaji George (Assistant Professor, ME) and Dr. Sreekanth M.P (Assistant Professor, ME). The session imparted knowledge in the technologies and methodologies happening in industry.

ELECTRONICS THERMAL MANAGEMENT

The diagram illustrates various aerospace applications of thermal management technology. Key components shown include:

- Infotainment System
- Electric motor & controller
- Mobile Computing Product
- Driver Assisted Camera
- Remote Electrical Power Distribution
- Electrical Vehicle Charger
- Motor Assembly
- ECU Assembly

 A central hub of colored hexagons (yellow, green, blue) connects these components, representing the integration of thermal management solutions across different systems.



END TO END MECHANICAL ENGINEERING CAPABILITIES

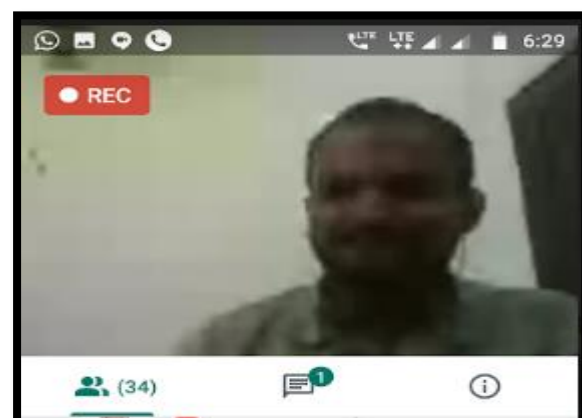
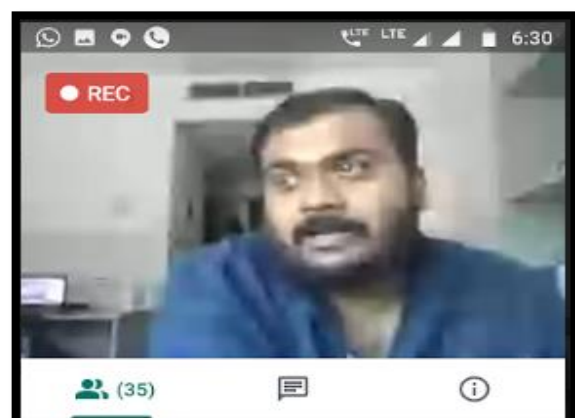
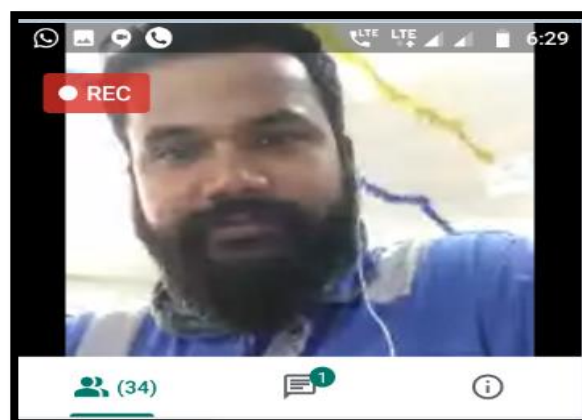
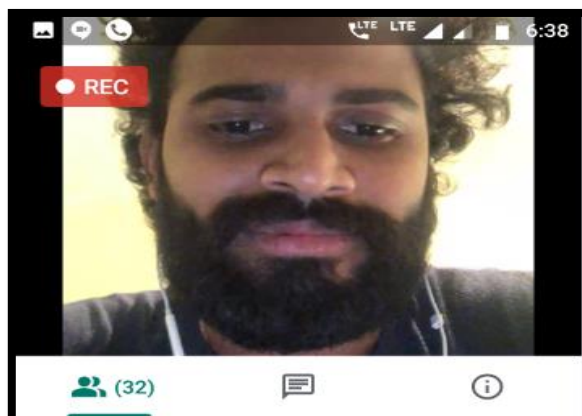
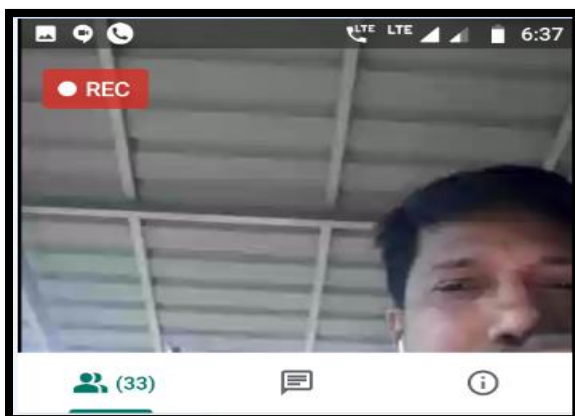
The diagram depicts a comprehensive mechanical engineering process cycle:

- Design:** Includes Configuration management, Product structure design, Design for Manufacturing, Material selection & testing, Design of Experiments, Packaging design, and Design Quality Reviews.
- Modeling & Detailing:** Includes CAD Modeling, Detailed Design, Manufacturing, Drawings & DFM, GD&T, Stackup Analysis, and Model Based Design (MBD).
- Analysis:** Includes Analysis of stress, motion, acoustics, vibrations, flow and thermal using CAE, Simulations/Param. solutions, Certification report preparation, Concessions and MRB, and Fatigue Analysis.
- Reliability:** Includes Reliability Planning, FMEA & DFMEA, Warranty analysis, System Safety Analysis, Fault Tree Analysis, and Reliability test plan.
- Prototyping:** Includes Plastic, Machined Parts, Component Assembly, 3D printing, and In-house and partnership with various vendors.
- Testing:** Includes Shock, Vibration, Environmental Testing, Certifications, Endurance & Fatigue testing, Performance testing, Coupon testing, Tear Fixture Design, and Qualification Testing.
- Manufacturing support:** Includes Industrial design, styling & ergonomics, Voice of customer, competitive analysis, usability study, Free body diagrams, Panel calculation, Feasibility model, Should costing for better concepts, and Concept development support.
- Sustainment:** Includes Root cause analysis, Value Engineering, Material solution, CAPA investigation, Field Support - FSA/FSC/FDA, Field returns & Field reliability, Warranty analysis & Sustainment, Provisioning Support, Technical Publications, and Interactive Electronic Technical Manuals (IETMs).
- Additional Capabilities:** Process Planning, Process Proof, MRB Operation Sheet, Shop floor Support, Flight Safety Removals, Inspection/CMM/FAI, CNC Programming, Jigs, Fixtures & Tooling, and APQP.



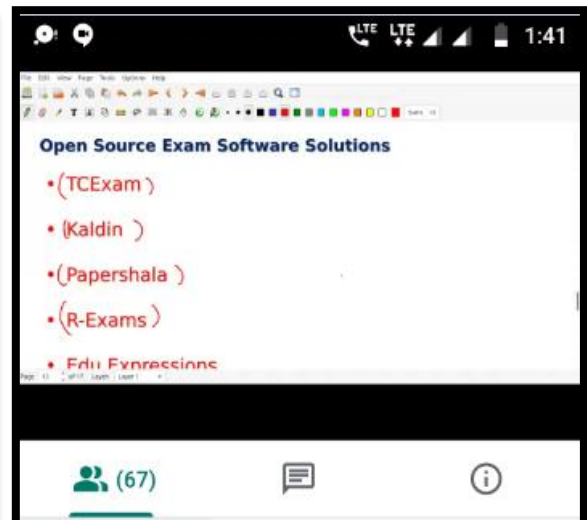
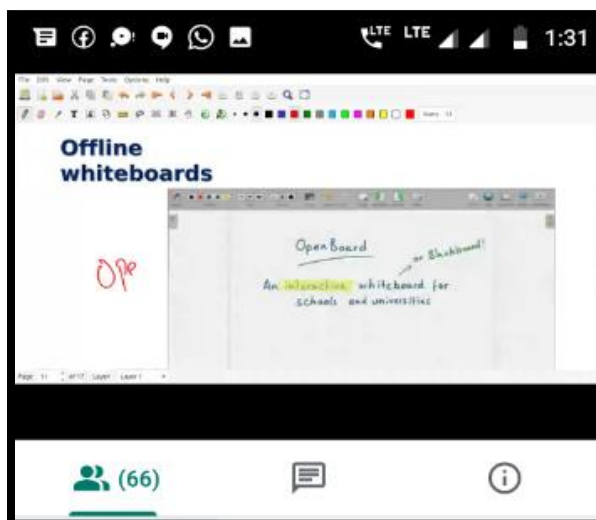
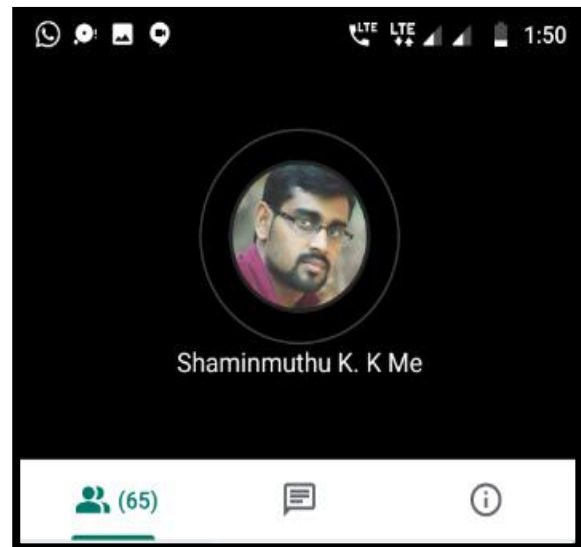
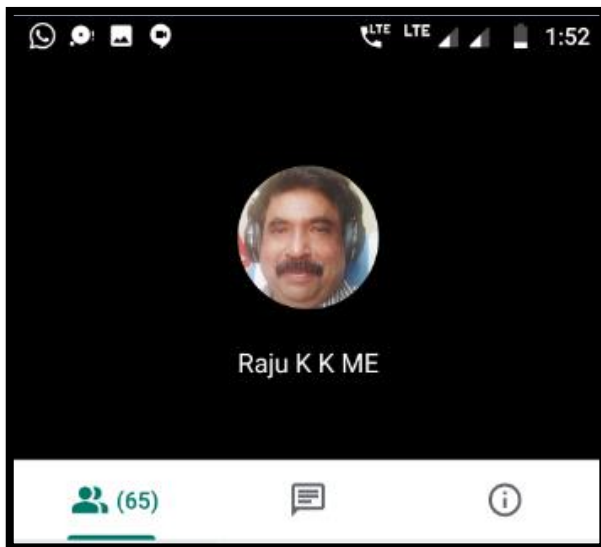
The Department of Mechanical Engineering, VJEC conducted a webinar on 'Opportunities in aerospace industries and what the Industry is looking for' on 11th June 2020 from 3.00 pm to 4.00 pm. The session was handled by a technical expert, Mr. Sathesh Palakkeel, the associate General Manager, Aerospace and defence, HCL Technologies, Bangalore. The webinar was conducted for eighth semester students of Mechanical Engineering. The convener of the programme was Cdr. (retd.) Raju K Kuriakose, Head of Mechanical Engineering Department. Mr. Rameshan K P, Associate Professor, ME, coordinated the event. The session helped students to understand about the engineering industry and the opportunities in industry.

ONLINE ALUMNI MEET: 07-06-2020 to 28-06-2020



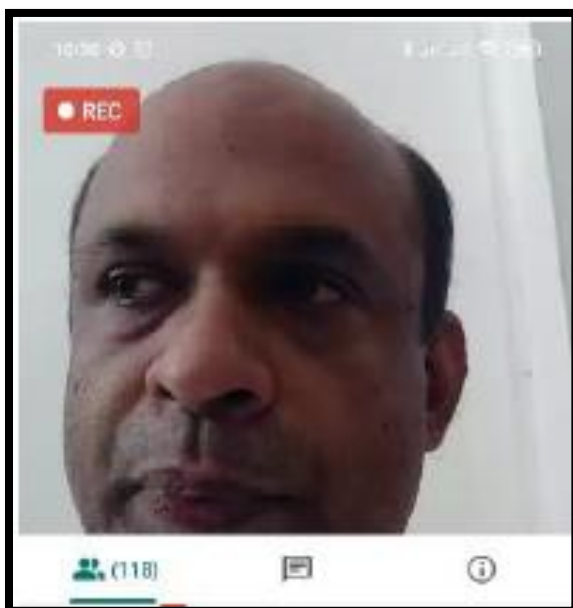
Online alumni meetings were conducted for all the graduated batches of students. They were conducted on various dates from 07-06-2020 to 28-06-2020. The meeting witnessed the reunion of old students of VJEC, year wise. The meeting could contribute to future support for Placement and Technical skill development activities for our students. Along with the alumni, the Department heads, tutors and staff members attend the meetings. The dates on which meetings were conducted are: 2007 graduated batch on 28-06-2020, 2012 graduated batch on 07-06-2020, 2013 graduated batch on 13-06-2020, 2014 graduated batch on 27-06-2020, 2015 graduated batch on 14-06-2020, 2016 graduated batch on 14-06-2020, 2017 graduated batch on 20-06-2020, 2018 graduated batch on 21-06-2020 and 2019 graduated batch on 20-06-2020.

TECHNICAL TALK ON 'ONLINE TEACHING METHODS': 17-07-2020



The Dept. Of Mechanical Engineering, VJEC conducted a Technical talk on 'online teaching methodologies' on 17th July 2020. The convener of the programme was Cdr. (retd.) Raju K Kuriakose, Head of Mechanical Engineering Department, VJEC. The session was handled by Mr. Shaminmuth K K, Assistant Professor, Department of Mechanical Engineering, VJEC. Dr. Benny Joseph (Principal, VJEC) and Faculty members from all the department of the college, participated in the event. The session provided information on latest ideas and techniques that can be applied for online mode of teaching, which is of very much important at the present situation. Now education has taken a new turn with technology being at the forefront. How we learn has changed drastically because how we study has changed as well. Technology is seeping into our education system and remote learning, online classes, and online courses are becoming the norm of the day.

ONLINE PTA MEETING: 21-07-2020



The PTA Meetings for S3 ME A & B (2019-23 batch) and S5 ME A & B (2018-22 batch) were conducted on 21-07-2020 from 10:00 AM to 11:30 AM and the PTA meeting for S7 ME A and B (2017-21 batch) was conducted on 21-07-2020 from 3 pm to 4.30 pm through the Online Platform Google Meet. The participation on parents side was quiet impressive. 102 parents attended the meeting along with their wards. The meeting was coordinated by Mr. Shaminmuthu K. K. Cdr. (Retd.) Raju K. Kuriakose, the Head of the Dept., was the convenor of the session. Our Principal, Dr. Benny Joseph and Our Manager (VJEC) Fr. James Chellamkottu and almost all faculties handling both Theory as well as Lab courses in S3 and S5 classes attended the meeting. The main agenda of the meeting was to discuss the readiness and conduct of online classes for the next academic year 2020-21.

PROGRAMMES ATTENDED BY FACULTY (JUNE & JULY 2020)

Dr. Sridharan P (Associate Professor, ME) attended the following programmes.

- 1) Webinar on APPLICATION DESIGN OF BRAIN COMPUTER INTERFACE (BCI) organised by ADAMAS UNIVERSITY- KOLKATTA on 13-06-2020.
- 2) Webinar on Internet of Things using Arduino organised by Dr. Shyama Prasad Mukherjee University, Ranchi on 16-06-2020.
- 3) Webinar on Internet of Things using Node MCU organised by Shiv Kumar Singh Institute of Tech&Sci, Indore, MP on 23-06-2020.
- 4) Webinar on DESIGN OF BRAIN COMPUTER APPLICATIONS organised by NIT JALANDAR on 26-06-2020.
- 5) Webinar on Nano Satellite Constellation: Space – based Internet of Things in New Space Era organised by RVS College of Engineering and Technology, on 27-06-2020.
- 6) FDP on RENEWABLE ENERGY SYSTEMS organised by RVS College of Engineering and Technology, from 01-06-2020 to 05-06-2020.
- 7) FDP on “Grid 4.0 & Industry 4.0 - An overview” organised by RVS College of Engineering and Technology, on 06-06-2020.
- 8) An International Webinar on "Envision Towards Particle Sciences and Biodiesel Production" Organized by KPR institute of Engineering and Technology, Coimbatore on 27.07.20-28-07-20.
- 9) Webinar on Journey of Establishing a Digital Twin, Organized by PSG College of Technology, Coimbatore,(Government Aided Autonomous Institution)Coimbatore - 641004, on 27.07.2020.
- 10) Webinar on Image processing Applications, Organized by AIMIT Manglore on 3.7.2020.
- 11) Webinar on Object Recognition YOLO Cloud, Organized by Khalsa College, Ludhiana on 10.7.2020.
- 12) Webinar on Robotic Operating System, Organized by ADAMA Science And Technology University ETHIOPIA on 17.7.2020.
- 13) Webinar on Brain Computer Interface and Research Opportunities Organized by AISSMA Institute of Technology, Pune on 21.07.2020.
- 14) Webinar on IIOT Industry 4.0, Organized by Sree Ramachandra College of Engineering, Eluru on 25.07.2020.

Dr. T D John (Professor, ME and Dean Research, VJEC) attended the following programmes:

- 1) Webinar on Funding Projects, Consultancies and Book Writing, organized by EC Department, VJEC on 08-07-2020.
- 2) Webinar on Networked Microgrids Energy Management System, organized by IEEE – PESSB VJEC on 10-07-2020.
- 3) Webinar on Employability Post COVID Era: Expectation of Industry Vs Education System's Preparedness, organized by ASSOCHAM on 11-07-2020.
- 4) Webinar on Retailing in new normal, organized by IEDC-VJEC on 17-07-2020.
- 5) Webinar on Digital Transformation: Opportunities and Challenges in the COVID era, organized by IEDC-VJEC on 21-07-2020.

Dr. Sreekanth M P (Assistant Professor, ME) attended the following programs:

- 1) Webinar on 'Industrial Relevance of Mechanical Engineering' organized by ME Dept, VJEC, Chemperi on 03-06-2020.
- 2) Webinar on "Outcome Based Education Software" organized by VMEDULIFE Software Services on 04-06-2020.
- 3) FDP on "Nanocomposites and Nanomaterials and It's Characterization", organized by ME Dept, VJEC, Chemperi during 08-06-2020 to 20-06-2020.
- 4) Webinar on "Recent Advances in Metal Based Additive Manufacturing Process" organized by Department of Mechanical Engineering, St. Joseph's Institute of Technology, Chennai on 24-06-2020.
- 5) Webinar on "Recent Research and Development in Additive Manufacturing" organized by Department of Mechanical Engineering and Additive Manufacturing Zone, Amal Jyothi College of Engineering, Kanjirappally, Kottayam on 25-06-2020.
- 6) Attended a marketing webinar on "Introduction to multi-purpose, multi-material additive manufacturing machine in education, product development, and research and development" by Mr. Shashidhar. N. C, Advance Mechanical Services Pvt. Ltd., and Mr. Saroop Chand, Adroitecinfo on 05, July 2020 organized by Suprajiv Technical and Management Studies, Bangalore using Zoom.

Mr. Alex George (Assistant Professor, ME) attended the following programmes:

- 1) Webinar on Introduction to CFD – Skill by Sathyabama university on 01.06.2020
- 2) Car Design Webinar by Launchpad Academy 01.06.2020
- 3) Webinar on Enhance Your Knowledge: Tips and Tricks for CFD Meshing by Ansys on 02.06.2020
- 4) Webinar on Introduction to Machine Learning and the ML Pipeline by amazon 04.06.2020
- 5) Webinar on Advanced Technique for Energy Efficient Device and MATLAB by SNGIST Indore 07.06.2020
- 6) Webinar on Opportunities in aerospace Industries' by ME dept , VJEC on 11.06.2020
- 7) Webinar on Motoring Journalism and the Future of Motorcycles by Sri Ramakrishna Institute of Technology on 13.06.2020
- 8) FDP on Contemporary Developments In Manufacturing Processes, Sustainable Manufacturing And Industrial Technologies by Pragati Engineering College, Department of Mechanical Engineering, Surampalem, Andhra Pradesh from 09.06.2020 to 13.06.2020
- 9) FDP Recent Advances in Mechanical Engineering by SNGIST indore on 09.06.2020
- 10) Webinar on Scanning Electron Microscopy and X-ray Microanalysis By Jyothi Engineering College on 20.06.2020
- 11) FDP on Effective Research Writing Using LaTeX by Pragati Engineering College, Department of Mechanical Engineering, Surampalem, Andhra Pradesh on 22.06.2020 to 27.06.2020
- 12) Integrating CAD/ CAE Design technology for Engineering Applications by AWH Engineering College on 17.06.2020
- 13) Webinar on Guidelines for Preparing and Publishing an Academic Research paper by Sri Venkateswara College of Engineering and Technology (Autonomous), Chittoor on 16.06.2020
- 14) Online quiz program on Automobile engineering by Aishwarya Polytechnic College on 15.06.2020
- 15) FDP on Advancement in the field of Mechanical Engineering by Department of Mechanical Engineering, Navodaya Institute of Technology, Raichur, Karnataka on 23.06.2020 to 27.06.2020
- 16) Webinar on Development of Low-Cost Solar Air Collectors by FXEC on 22.06.2020
- 17) Webinar on Adventures of a Particle Physicist by FXEC on 20.06.2020
- 18) National Level Technical Quiz On Engineering Mechanics Conducted By Department Of Mechanical Engineering, Rgmcet, Nandyal-518 501 On 20.06.2020
- 19) A National Level Technical Quiz on "ADDITIVE MANUFACTURING TECHNOLOGY" (3D Printing) by VBIT, Hyderabad, on 21.06.2020
- 20) One-Week Online International FDP on "RESEARCH CHALLENGES IN MECHANICAL ENGINEERING by Sri Venkateswara College of Engineering and Technology (Autonomous), Chittoor, Andhra Pradesh on 22.06.2020 to 27.06.2020
- 21) Webinar on e mechanics by Department of CIVIL & MECHANICAL Engineering NRI Institute of Technology :: Guntur on 22.06.2020
- 22) National level online E-Quiz on Design of Machine Elements by VVIT Mysuru on 26.06.2020
- 23) Technical webinar topic " Ultrafine grained materials: Old material with futuristic properties" is organized by Department of Mechanical Engineering, Francis Xavier Engineering College (An Autonomous Institution), Tirunelveli, Tamil Nadu, India on 04th July 2020 at 11.00 AM to 12.00 PM
- 24) AICTE Sponsored Online STTP on "Recent Trends in Hybrid and Electric Vehicle Technologies (RTHEVT '2020)" by Department of Mechanical Engineering, MaharajVijayaramGajapathi Raj College Of Engineering (A), Chintalavalsa, Vizianagaram, Andhra Pradesh, India-535005 6-11 July,2020
- 25) Webinar on " Invention to Patent - Awareness &Strategies"byDepartment of Mechanical Engineering. St.Joseph's Institute of Technology, OMR, Chennai - 600119Date - 2nd July 2020 / Time - 11.00 AM to 12.10 PM.
- 26) Webinar on "Adsorption cooling Technologies" 01 July 2020 at 11:00 Am, Organized by Gopalan College of Engineering and Management
- 27) FDP on "ADVANCEMENTS IN MECHANICAL ENGINEERING" from 04-07-2020 to 10-07-2020, Time: (10:30 AM to 11:30 AM). By Department of Mechanical Engineering of Gates Institute of Technology

Mr. Gokulnath R (Assistant Professor, ME) attended the following programmes:

- 1) Online quiz programme in 'Basics of Mechanism' organised by Department Of Mechanical Engineering, Mount Zion College Of Engineering And Technology, Pudukkottai, Tamil Nadu on 03-06-2020.
- 2) National level online quiz on 'Cyber security', organised by Sanjivani College of Engineering, Kopargaon, on 03-06-2020.
- 3) Webinar on 'Industrial relevance of Mechanical Engineering', organised by ME Dept, VJEC Chemperi on 03-06-2020.
- 4) FDP in 'Outcome Based Education Software', organised by vmedulife Software Services on 04-06-2020.
- 5) Webinar on "Opportunities in aerospace Industries" by ME Dept, VJEC Chemperi on 11-06-2020.
- 6) FDP on "Recent Advances in Mechanical Engineering" organized by Department of Mechanical Engineering, Shri G.S Institute of Technology and Science, Indore from 08-06-2020 to 13-06-2020.
- 7) Webinar on Industry 4.0 - Digital Manufacturing organised by SMK Fomra Institute of Technology, Chennai on 14-06-2020.
- 8) Webinar on "3D Printing & Medical Applications" organised by Department of Mechanical Engineering , Viswajyothi College of Engineering & Technology, Vazhakulam on 15-06-2020.
- 9) National Level Online Quiz on Engineering Graphics organised by Department of Mechanical Engineering, Aurora's Technological and Research Institute on 16-06-2020.
- 10) Webinar on " Reserch areas in Mechanical Engineering " organised by Sri Venkadeswara College of Engineering and Technology, Chittoor from 16-06-2020 to 18-06-2020
- 11) Webinar on 'How To Write A Technical Paper' organised by IEEE SB VJEC on 20-06-2020.
- 12) Webinar on 'An Insight into Piping Construction in Petrochemical Industry' organised by Department of Mechanical Engineering, Francis Xavier Engineering College (Autonomous) Tirunelveli on 29-06-2020.
- 13) Webinar on 'Ultrafine grained materials: Old material with futuristic properties' organised by Department of Mechanical Engineering, Francis Xavier Engineering College (Autonomous) Tirunelveli on 04-07-2020.
- 14) Webinar on 'Future Approach of Aerospace Vehicle Design' organised by Department of Mechanical Engineering, Francis Xavier Engineering College (Autonomous) Tirunelveli on 06-07-2020.
- 15) Webinar on 'Funding Projects, Consultancies and Book writing' organised by Department of Electronics and Communication Engineering of Vimal Jyothi Engineering College, Kannur on 08-07-2020.
- 16) Online technical talk on Online teaching Methodologies organised by Department of Mechanical Engineering, Vimal Jyothi Engineering College, Kannur on 17-07-2020.
- 17) Webinar on 'Protect Your Cyber Space' organised by IEEE, Vimal Jyothi Engineering College, Kannur on 31-07-2020.

Mr. Jerin Saji (Assistant professor, ME) attended the following programmes:

- 1) FDP in 'Outcome Based Education Software' organised by vmedulife Software Services on 04-06-2020.
- 2) 5-Day Extensive Training on "Mathematical Modelling and Analysis using Matlab and Simulink." organized by Themodynedutech from 08-06-2020 to 12-06-2020.
- 3) 1-day Workshop on "Computational Modelling using Ansys Fluent" organized by Themodynedutech on 09-06-2020.
- 4) 10-Day Extensive Training on "CFD" organized by Themodynedutech from 29-06-2020 to 10-07-2020.
- 5) Online Quiz on "Design of Machine Elements and Dynamics of Machinery" conducted by Department Of Mechanical Engineering, Sri Ranganathar Institute Of Polytechnic College, Coimbatore on 09-07-2020.
- 6) National level E-quiz on the "Metal Casting" , organized by Department of Mechanical Engineering, VVCE, Mysuru from 11-07-2020 to 14-07-2020
- 7) Online Quiz Competition in association with ISTE, AMES and SAE collegiate club conducted by mechanical department of Jyothi Engineering College, Thrissur , from 07-07-2020 to 28-07-2020.

Mr. Arjun Jayaprakash (Assistant Professor, ME) attended the following programmes:

- 1) Two week FDP Program on "Nanocomposites and Nanomaterials and its Characterization" organized by ME Department, VJEC Chemperi from 08-06-2020 to 22-06-2020.
- 2) Webinar on 'Industrial relevance of Mechanical Engineering' organised by ME Dept, VJEC Chemperi on 03-06-2020.

Mr. Mejo M Francis (Assistant Professor, ME) attended the following programme:

Two Week Faculty Development Programme On "Nanocomposites and Nanomaterials & it's Characterization" organised by Department Of Mechanical Engineering, Vimal Jyothi Engg College from 08-06-2020 to 20-06-2020

Mr. Appu Kurian (Assistant Professor, ME) attended the following programme:

Webinar on "Opportunities in aerospace Industries' by ME Dept, VJEC Chemperi on 11-06-2020

Mr. Aji Augustine (Assistant Professor, ME) attended the following programmes:

- 1) Online FDP on 'Advancement in the field of mechanical Engineering' by Navodaya Institute of Technology Karnataka from 23-06-2020 to 27-06-2020.
- 2) Webinar on 'scanning electron microscopy and x-ray analysis' by Jyothi Engineering College on 20-06-2020.
- 3) National Level Technical Quiz of 'FEM' by Sri Venkateswara College of Engineering and Technology (Autonomous), Chittoor on 28-06-2020.
- 4) Online FDP on Research Challenges in mechanical Engineering by Sri Venkateswara College of Engineering and Technology (Autonomous), Chittoor from 22-06-2020 to 27-06-2020.
- 5) Webinar on "Adventures Of Particle Physicists" by Francis Xavier Engineering college Tirunelveli on 20-06-2020.

FACULTY ACHIEVEMENTS

1. Dr. T D John (Professor, ME and Dean research VJEC) conducted a webinar on " Cycle Tempo modeling and analysis of bio-char production systems" on 15-07-2020 with expert Dr. Vasanth Parthasarathi (Post Doc, TU Berlin) and audience as S6 & S4 students interested in project of Carbon Neutral Meenangadi.
2. Dr. Sreekanth M P (Assistant Professor, ME) presented a paper entitled "Hand anthropometric measurements of south Indian male population collected using tracer method and its correlation analysis with height and shirt size", in the "International Conference on Technology Convergence in Engineering, Energy, & Sustainability (ICTCEES – 2020)" organized by Department of Mechanical Engineering, Vimal Jyothi Engineering College, Chemperi, Kannur through online platform, during 18th and 19th July 2020.
3. Dr. Sreekanth M P (Assistant Professor, ME) completed the review of a paper for Emerald Rapid Prototyping Journal and submitted the score in June 2020.
4. Dr. P.Sridharan (Associate Professor, ME, VJEC) was a resource person for Online FDP on 'Mechatronics Engineering for Industry 4.0 Era' organised by Department of Mechatronics Engineering of K S Rangaswamy College of Technology, Tamil Nadu and MHRD Institution's Innovation council on 09-06-2020.
5. Mr. Ryne P M, Associate Professor, Dept. of ME, got admission to PhD programme under KTU.

IDEA COMPETITION WINNERS

These students from Department of Mechanical Engineering secured prizes for Idea Competition organized by the Innovation and Entrepreneurship Development Cell of VJEC in association with Kerala Startup Mission, Unnath Bharath Abhiyan, MHRD Institute Innovation Council, United Nations Academic impact. The presentation by students was held on 06-06-2020.



Mr. Joel Mathew



Mr. Ben Johns



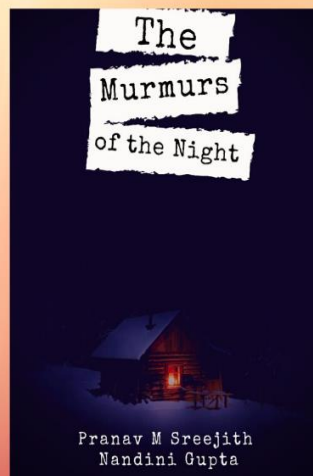
Mr. Ajnas A K

- 1) Mr. Ben Johns Philip of S2 ME secured FIRST prize for the idea of 'Co-Eye: Facemask Detector'
- 2) Mr. Joel Mathew and Mr. Ajnas A K secured SECOND prize for the ideas of 'Social distancing detector and 'Automatic floor sanitizing'

Congratulations

Book published
It is an initiative anthology
which is providing
platform to the writers whose
inks are efforting to explore, by
publishing
their write-ups.

The murmurs of the night
Inksprink publications



PRANAV M SREEJITH
(2018-2022 BATCH)
DEPARTMENT OF MECHANICAL ENGINEERING

FAREWELL TO OUR RELIEVING FACULTY



MR. BINOYP



MR. MELBIN BENNY



MR. RINJESH



MR. ARJUN J P

Program Educational Objectives (PEO'S)

PEO1: Graduates will be able to pursue successful professional career in Mechanical Engineering with sound technical and managerial capabilities.

PEO2: Graduates will have skills and knowledge to formulate, analyze and solve problems in mechanical engineering to meet global challenges.

PEO3: Graduates will be capable of pursuing mechanical engineering profession with good communication skills, leadership qualities, team spirit and professional ethics to meet the needs of the society.

PEO4: Graduates will sustain an appetite for continuous learning by pursue higher education and research in the allied areas of science and technology.

Program Outcomes (POs)

- PO1: Engineering knowledge
- PO2: Problem analysis
- PO3: Design/development of solutions
- PO4: Conduct investigations of complex problems
- PO5: Modern tool usage
- PO6: The engineer and society
- PO7: Environment and Sustainability
- PO8: Ethics
- PO9: Individual and team work
- PO10: Communication
- PO11: Project management and finance
- PO12: Life-long learning

Program Specific Outcomes (PSOs)

- PSO1: An ability to use computer aided modelling and simulation tools to provide solutions to mechanical engineering problems.
- PSO2: An ability to develop and implement a process in a well-planned manner leading to a demonstrable product.

Staff Editor: Mr. Gokulnath R (Asst. Prof, ME)

Student Editors: Ms. Aswathi Manoharan, Mr. Samrood Abdul Wahab