

## Student Activities

1. Mr. Bernad K B of final year Mechanical A batch has been selected as ISTE Best Student Award State level – ISTE Kerala chapter in the year 2018-19 .
2. Mr. L. Pranesh of Final year Mechanical B has secured 3rd Prize in Mr.Palakkad(75Kg) Competition held in Feb 2019.
3. A low cost Braille Printer, Project by Bernad KB( Final year Mechanical Engg Student) & team got Second Prize in Technology Conclave at Pooram International Hotel organized by MSME & DIC, Thrissur on Feb 2019.
4. The student of our department has participated different conferences.

Authors	Title	Conference Name	Venue, Month & Year
Bernad K.B	Brailleon-A Low Cost Braille Printer	KSCSTE-TEKON	GEC Thrissur, February 15-17, 2019
Arun Raj K. M	Cryo E- Toilet	KSCSTE-TEKON	GEC Thrissur, February 15-17, 2019
Bernad K.B	Brailleon-A Low Cost Braille Printer	Technology Conclave	District Industries Center, Thrissur, February 25-26, 2019
Bernad K.B	Brailleon-A Low Cost Braille Printer	Open Source Contribution	GEC Thrissur, February 15-17, 2019
Don Davies	Effect of Additives on Blending Fuels	KSCSTE-TEKON	GEC Thrissur, February 15-17, 2019
Godwin Cletus E	Cooling of Heavy Vehicle Drum Breaking System	KSCSTE-TEKON	GEC Thrissur, February 15-17, 2019



Bernad K B



Arun Raj K M



L Pranesh



Don Davis



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## DEPARTMENT OF MECHANICAL ENGINEERING NEWS LETTER

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### Vision

To provide quality education of international standards in Mechanical Engineering and promote professionalism with ethical values, to work in a team and to face global challenges.

### Mission

- To provide an education that builds a solid foundation in Mechanical Engineering.
- To prepare graduates for employment, higher education and enable a lifelong growth in their profession.
- To develop good communication, leadership and entrepreneurship skills to enable good knowledge transfer .
- To inculcate world class research program in Mechanical Engineering.

### H.O.D's Desk



We prefer the best ways out of anything for which we are attempting. To reach that level we must try our best through hardwork and concentration, the rest will come automatically. I wish all my students best results and excellent jobs.

## Staff Achievements

B. Deepanraj presented a paper titled “Investigation and Optimization of Machining Parameters Influence on Surface Roughness in Turning AISI 4340 Steel”, International Conference on Recent Developments in Mechanical Engineering, Chennai, India, March 21-22, 2019.



B. Deepanraj published a paper titled "Energy and energy analysis, drying kinetics, modeling and quality parameters of microwave-dried turmeric slices", Journal of Thermal Analysis and Calorimetry (SCI Journal), Vol.136 (1), 2019, pp.185-197.

B. Deepanraj has got Indian Patent No.310171 Granted on March 28, 2019 titled A Biodiesel Fuel Blend Composition Comprising of Prickly Poppy Methyl Ester (PPME), Ethanol and Diesel.

B. Deepanraj has selected as the Guest Editor for the Special Issue on “Energy provision from organic by-products, residues and wastes in Asia” in Biomass Conversion and Bio refinery Journal published by Springer Nature, March 2019

B. Deepanraj has appointed as the PhD Thesis External Examiner, Shri Venkateshwara University, Amroha, UP, January 2019.

B. Deepanraj, has published a paper titled “Experimental Investigation on Performance, Combustion and Emission Analysis of a Direct Injection Diesel Engine fuelled with Rapeseed Oil Biodiesel Fuel”, (SCI Journal from Elsevier), Vol.246, 2019, pp.69-74.

B. Deepanraj Delivered an invited talk and chaired technical sessions during “National Conference on Innovative Research in Science, Technology and Management, Technologies” at PSV College of Engineering & Technology, Krishnagiri, May, 2019.



Christy V Vazhappilly has attended a conference “Reconstruction of human ear using bio-CAD models “, 4th International Conference on Nanomaterials: Synthesis, Characterization and Applications, Kottayam, April 2019.

B. Deepanraj has selected as the Guest Editor for the Special Issue on “WEECON'19: Special Issue on: "Science, Technology and Innovation for Sustainable Development” in World Review of Science, Technology and Sustainable Development published by Inderscience. April 2019.

B. Deepanraj was the Advisory committee member for “Indo-US Virtual Conference on Carbon Sequestration Bio-energy, Environment and Sustainable Technologies” organised by CO2 Green Technologies Centre, Vellore Institute of Technology, April 2019.

## Department achievements

Department of Mechanical Engineering organized International conference on Advancements in Mechanical Engineering (ICAME 2019) - Challenges towards Sustainable Development, April 10-11, 2019



## PROGRAMME EDUCATIONAL OBJECTIVES (PEOs)

**PEO I:** Graduate Engineers shall have strong practical and theoretical exposure in the field of Mechanical Engineering and will contribute to the society through innovation and enterprise.

**PEO II:** Graduate Engineers shall have global outlook and technological leadership, good employments or opt for higher studies/research and have creative thinking to initiate and develop innovative ideas.

**PEO III:** Graduate engineers shall have excellent team works, communication and interpersonal skills having high morales and ethical values.

## PROGRAMME OUTCOMES (POs)

**PO 1. Engineering knowledge:** Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

**PO 2. 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.

**PO 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.

**PO 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.

**PO 5. Modern tool usage:** Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.

**PO 6. The engineer and society:** Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

**PO 7. Environment and sustainability:** Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

**PO 8. Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

**PO 9. Individual and team work:** Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

**PO 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.

**PO 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.

**PO 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.

## PROGRAMME SPECIFIC OUTCOMES (PSOs)

**PSO 1:** Graduates would be able to apply their knowledge in the domains of manufacturing, fluid and thermal sciences to solve engineering problems.

**PSO 2:** Graduates would be able to apply the principles of design and analysis on product design with the help of modern CAD/CAM tools.

**PSO 3:** Graduates would be able to apply the basic principles of engineering and management practices in various practical fields to engage themselves in research /Industry/Society.



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