



SRM VALLIAMMAI ENGINEERING COLLEGE

(An Autonomous Institution)

S.R.M NAGAR KATTANKULATHUR - 603 203

DEPARTMENT OF MECHANICAL ENGINEERING

NEWS LETTER April _ June 2022



1. A Guest Lecture on ‘Aerospace Concepts and Design’ was conducted through online mode on 23rd April 2022. The resource person Mr. S. Manoj Kumar, B.E., M.E(AERO), Senior Analysis Engineer, Boeing India Private Ltd, delivered the guest lecture following topics : Design principles of air-breathing engines and nacelles, Different types of aircraft, Types of engines and their applications, The most powerful and largest engine - GE90 115B, Turbofan vs. turbojet or low bypass engine, Difference between Two spool and three spool engines, Engine efficiencies, Specific thrust and propulsive efficiency, Driving factors for commercial aircraft design, Nacelle and Thrust Reverser, ASG programs and new technologies. A total of 46 members participated in the guest lecture.
2. A Guest Lecture on ‘Safety Implementation in Automobile Industry’ was conducted through online mode on 30th April 2022. The resource person Mr. X. Velanganni Manohar, Senior Health and Safety officer – Ford India Private Limited, delivered the expert lecture on following topics: Safety measures adopted in Ford India Private Limited, Safety practices implemented in job floor, Ergonomic and workplace stress, Fire safety, Electrical safety, Workplace accident: Reporting & Prevention, Importance of PPE for employees, Latest advancement in safety, Emergency action plans. A total of 32 members participated in the guest lecture.
3. A Value-added course on ‘Optimization Techniques for Solving Multiple Attribute Decision-Making Problems’ was conducted from 7th May 2022 to 14th May 2022. The objective of this programme is to enhance the knowledge about classical optimization techniques and numerical methods of optimization. The course focuses on various optimization techniques and its requirement, classification, applications and the multiple performance characteristics in various operations and procedure for single objective function optimization in Mini Tab Tool. The course was handled by Mr. K. Arumugam, Asst. Professor. The students numbering 44 from various Engineering departments participated in this course. The participants gave the feedback that the course had given them great ideas and the ability to apply the theory of optimization methods and algorithms to develop and for solving various types of optimization problems. They also appreciated the course methodologies, the structure of learning

experience in specific and the content of the course. The program ended by conducting skill assessment test and collecting feedback from the students.

4. A Skill Development Programme on 'Basics in CAD Modelling and Analysis' was conducted on 23rd June 2022. The objective of programme was explained by Dr. S. Thirugnanam HOD/Mech. Introduction to modelling in CREO was covered by Mr. R. Ashok Assistant Professor (Sr.G), Mechanical Engineering. The topics regarding analysis in ANSYS software were handled by Mr. P. Ramu Assistant Professor (O.G), Mechanical Engineering. Staff members actively practiced modelling and analysis of simple CAD drawings. In this programme, totally 11 non-teaching staff members participated.

Staff Publications:

1. Mr. R. Srinivasan, Mr. K. Hariharan, Mr. S.A. Jeyanthan, Mr. K. Kamalesh and Mr. Ifthikar Ali published paper on 'Effect of addition of titanium carbide and graphite reinforcement on Al7075 hybrid metal matrix composites by gravity stir casting method' in Materials today proceedings; Vol-62,2022, pages 86-93; DOI: <https://doi.org/10.1016/j.matpr.2022.02.272>.
2. Mr. R. Pavithran, Mr. V. Nirmal Nishanth, Mr. S. Prabhakaran, Mr. P. Pradeep Raj and Mr. G. Ananth published paper on 'Design & Analysis of Battery Thermal Management System' in International Research Journal of Modernization in Engineering Technology and Science, e-ISSN: 2582-5208, Volume: 04/ Issue: 05/ May 2022, Page No:3197-3200.
3. Mr. G. Sathish Kumar, Mr. S. Ranish, Mr. R. Harish Kumar, Mr. G. Ramani and Mr. R. Ramkumar published paper on 'Design, Analysis and Characterization of fibre reinforced plastics for replacement of body of goods train wagon' in International Journal of Advance Research and Innovative Ideas in Education, IJARIE-ISSN(O)-2395-4396 Page No: 1597-1602. volume 8 issue 3 2022.
4. Mr. V. Karthicsen, Mr. B. Harish, Mr. G. Karthik Hariharan, Mr. T. Karthikeyan and Mr. R. Ramkumar published paper on 'Numerical Investigation and Characterization for Glass fibre reinforced polymer and carbon fibre reinforced polymer composite for high corrosion chemical tank' in International Journal of Advance Research and Innovative Ideas in Education, IJARIE-ISSN(O)-2395-4396 Page No: 1714-1721. volume 8 issue 3 2022.
5. Mr. J. Kishore, Mr. A. Mohanraj, Mr. R. Nandha Kumar, Mr. A. Naveen Raj and Mr. K.P. Manikandan, published paper on 'Effects of Process Parameters on Forming Forces in a Single Point Incremental Forming Process (Al-7075)' in International

6. Mr. B. Lokesh, Mr. R. Manish Kumar, Mr. S. Mohana Krishnan, Mr. A. Mohan Raj and Ms. N. Nithya published paper on 'FEA Based Modelling of Magneto Rheological Damper to Control Vibrations During Contour Milling' in International Journal of Advance Research and Innovative Ideas in Education, Vol-8 Issue-3 2022 IJARIE-ISSN(O)-2395-4396., Page No: 16806, 1466- 1471.
7. Mr. R. Mugundhan, Mr. M. Muthu Kumar, Mr. V. Nagarajan, Mr. G. Sanchay and Ms. N. Nithya published paper on 'Fault Diagnosis Analysis in Milling Machine using Magneto Rheological Damper' in International Journal of Advance Research and Innovative Ideas in Education, Vol-8 Issue-3 2022 IJARIE-ISSN(O)-2395-4396, Page No: 16778, 1293- 1298.
8. Ms. V. Shwetha Anandhini, Mr. B. Sujay2, Mr. J. Tharik Ajees, Mr. P. Thiruselvam and Dr. S. Thirugnanam published paper on 'Experimental Investigation of Al 8011 Aluminium Alloy Reinforced With Silicon Carbide And Boron Carbide' in International Journal of Advance Research and Innovative Ideas in Education, Vol-8 Issue-3 2022 IJARIE-ISSN(O)-2395-4396, Page No: 1 6873, 1831- 1839.
9. Mr. A. Mohana Subramanian and Dr. S. Thirugnanam published paper on 'Implementing Safety In Construction Site During Integrated Strom Water Drain Work' in International Journal Of Current Engineering And Scientific Research (IJCESR), ISSN (PRINT): 2393-8374, (Online): 2394-0697, Volume-8, Issue-12.

Students Activities:

1. Mr. R. Hariharan, Mr. J. Hariharan, Mr. M. Adithya and Mr. S. Jeeva Prasanna published a paper on 'Design and Analysis of Smart Indication System' in International Journal of Advance Research and Innovative Ideas in Education, Vol-8 Issue-3 2022 IJARIE-ISSN(O)-2395-4396, Page No: 17407, 4619-4623.