



## NEWSLETTER

## MExpress



Department of Mechanical Engineering, KUMARAGURU COLLEGE OF TECHNOLOGY

Vol. 02 No. 02

For internal circulation only

01.09.2018 – 30.09.2018

Editors: Dr. C. Velmurugan, Mr. B. N. Sreeharan

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### Programmes Organized

- A technical contest “Mr. Mechanic” was organized on 01.09.2018 for 52 students from various Engineering Colleges in and around Coimbatore to give practical exposure to the students to meet the industrial needs. Mr. M. V. Loganathan, Proprietor, Perfect machine tools, Former president of COSIEMA, Coimbatore was the judge for the contest.



Dr. S. Balasubramanian, ASP/ME along with Mr. M. A. Vinayagamoorthis, AP (II)/ME and Mr. S. Suresh, AP/ME coordinated the event.



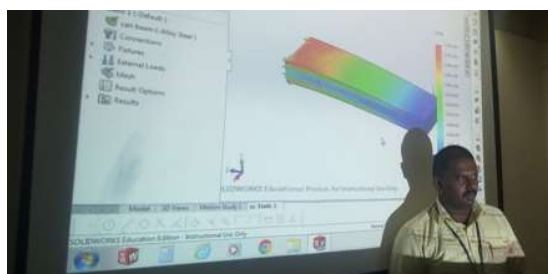
- A Short-Term Course On “ADVANCED MACHINING SOLUTIONS” was organized on 15.09.2018 by Mr. V. Sudhakar, Asst. Technical Manager, SECO Tools India (P) Ltd, Coimbatore to provide technical training & to

educate the importance of advanced machining solutions in different applications.



Dr. S. Balasubramanian, ASP/ME along with Mr. M. A. Vinayagamoorthis, AP (II)/ME coordinated the event.

- An Awareness program on GATE Exam to impart the importance of GATE examination for Mechanical Engineering students was organized on 26.09.2018. Awareness was created by Dr. R. Kannan, Assistant Professor, Department of Aerospace Engineering, Amrita Viswavidyalapeetham, Coimbatore. Dr. N. Sangeetha, Sr. ASP/ME and Mr. S. Suresh, AP/ME coordinated the event.
- A Three Days Training on Finite Element Analysis - Theory and Approach was given for 15 Engineers from M/s. Roots Industries, Coimbatore on "Analysis of Plastic parts, Structural/clamping loads, Thermal Analysis of Sheet metal part for Loads, Vibration" between 01.09.2018 and 15.09.2018.





Training was provided by Dr. V. Muthukumaran, Prof./ME, Mr. M. Thirumalaimuthukumaran AP (II)/ME, Mr. V. R. Navaneeth, AP/ME, and Mr. R. S. Mohankumar, AP/ME.

### Programmes Attended

- Dr. N. Sangeetha, Senior ASP/ME participated in 2 days training program on "Abaqus" offered by M/s. EDS technologies (Abaqus vendor) for acquiring knowledge in nonlinear analysis on 11.09.2018 and 12.09.2018.
- Dr. S. Balasubramanian, ASP/ME, Mr. M. A. Vinayagamoorthi, AP (II)/ME, Mr. B. N. Sreeharan, AP (II)/ME and Mr. R. S. Mohankumar, AP/ME participated in "Industry 4.0 Symposium- Journey from What, Why, When, Where and How to do it?" on 04.09.2018 at Ardra Hall, No. 6 North Huzur Road, Near Anna Statue, Coimbatore conducted by Meti and Photon.
- Dr. S. Balasubramanian, attended a Laser Exhibition at BIEC, Bangalore on 27.09.2018.
- Mr. P. D. Devan, AP/ME and Mr. S. Suresh, AP/ME participated in iMENTOR- Innovation Mentors – A 3 days residential program at Forge Accelerator, KCT Tech park, Coimbatore.
- Dr. C. Velmurugan, HoD/ME, Dr. K. M. Senthilkumar, ASP/ME and Mr. S. Suresh, AP/ME participated in "iDEX - INNOVATIONS FOR DEFENCE EXCELLENCE" - An open innovation program for the Indian Defence sector on 26.09.2018.
- Mr. Sachinjith. K. R, Mr. Gowtham. S and Mr. Raghul. K. C. K from 2<sup>nd</sup> year Mechanical 'C' section attended a One Day Workshop on "Vehicle dynamics" at Government College of Technology, Coimbatore on 08.09.2108.
- Mr. Siddharth M, 3<sup>rd</sup> Year Mechanical participated in India's biggest cultural fest Festember 18 in Battle Bands at National Institute of Technology, Trichy on 16.09.2018.

- Mr. Navin Kumar from Mechanical 3<sup>rd</sup> year participated in Kraft Fitness Challenge and won the 2<sup>nd</sup> Prize in Pushup Challenge, held in Kumaraguru College of Technology.
- Mr. Harshath. C, 3<sup>rd</sup> year Mechanical participated in PITS State Tournament of Football in PITS College and got 3<sup>rd</sup> place on 09.09.2018.
- The following students from Mechanical Participated in "NIT Festember" in Drama event "THERU KOOOTHU" and won the 1<sup>st</sup> Place and were the Finalists "Kalakkal Kalata".



- Mr. Ajay Krishnan K
- Mr. Mathan Raj
- Mr. Valliappan RM
- Mr. Sushanth
- Mr. Karthick Raja
- Mr. Tamil Selvan
- The Quad bike team of KCT-Legion Participated in the event Quadtorc and bagged the overall 4<sup>th</sup> Position and the runners up in the Endurance and Mudwalker.



### Guest Lectures Delivered

- Dr. R. Arvind Singh, Prof./ME, was invited for a Keynote Talk on "Tribology at Multi-Scale" in the TEQIP Sponsored International Conference on 'Mechanical Engineering and Allied Sciences' (ICMEAS) conducted by Shri Mata Vaishnov Devi University (SMVDU), Katra, Jammu.

- Dr. Arvind Singh also delivered an expert Lecture on "Manufacturing Technology", in the School of Mechanical Engineering, Shri Mata Vaishno Devi University (SMVDU), Katra, Jammu.

### Patent Applied

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- An Indian Patent was applied bearing application NO. TEMP/E-1/35382/2018-CHE, titled 'Fully Automatic Wet Grinder' by Dr. R. Arvind Singh, Prof./ME, Dr. S. Jayalakshmi, Prof./AE, Mr. P. D. Devan, AP/ME alongwith Final Year B Section Students Mr. B. Sarvinnath, Mr. S. Thiruvengkata Balaji and Mr. A. Sikkander Ashik.

### Awards received

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- Dr. R. Arvind Singh, Prof./ME, "BEST PAPER AWARD" in the TEQIP Sponsored International Conference on 'Mechanical Engineering and Allied Sciences' (ICMEAS), Shri Mata Vaishno Devi University (SMVDU), Katra, Jammu.
- Dr. C. Velmurugan, Prof. & HoD/ME, "AWARD OF MERIT - TEACHING & LEARNING", Teachers Day Celebration, KCT.
- Dr. R. Manivel, Prof./ME, "AWARD OF MERIT – RESEARCH", Teachers Day Celebration, KCT.
- Mr. T. Karuppusamy, AP (II)/ME "AWARD OF MERIT - ENGAL AASAAN", Teachers Day Celebration, KCT.
- Dr. Samuel Ratna Kumar PS, AP/ME, "AWARD OF MERIT - STUDENT DEVELOPMENT", Teachers Day Celebration, KCT.

### Papers Reviewed

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- Dr. R. Arvind Singh, Prof./ME reviewed a paper titled "Effect of Fused Deposition Modelling Process Parameters on Mechanical Properties of 3D Printed Part" for the International Journal of Materials and Product Technology (IJMPT).
- Dr. S. Balasubramanian, ASP/ME reviewed a paper titled "Experimental study on the formation principle of the core-spun yarn manufactured on a modified vortex spinning system" for Textile Research Journal.
- Mr. S. Sivakumar, AP (II)/ME reviewed a paper titled "Absorber Materials Based on Polymer Nano Composites Containing Silver Nano Particles for Solar Thermal Collectors Solar Energy" for ELSEVIER.

### Papers published

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- Dr. R. Arvind Singh, Prof./ME, published a paper (editorial article) titled "Corrosion of Materials After Advanced Surface Processing, Joining and Welding" in the International Journal of Corrosion, Vol: 2018, PP. 1-3 (Collaboration: Russia, China & Germany), Hindawi Publishers (Scopus Indexed).

### Papers presented

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- Dr. R. Arvind Singh, Prof./ME, presented a paper titled "Investigation of the Structure and Properties of Coatings Designed to Protect Spacecraft from the Damage Effects of Space Slam" in the TEQIP Sponsored International Conference on Mechanical Engineering and Allied Sciences (ICMEAS), Shri Mata Vaishno Devi University (SMVDU), Katra, Jammu, 14-15 Sept 2018. It is a collaboration with Russia & China.

### Book Publications

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- Dr. N. Sangeetha, Sr. ASP/ME, written a chapter titled "Flutter Analysis of Supersonic Low Aspect Ratio Composite Wings Using FSI Methodology" in the book entitled 'Advances in Manufacturing Processes' to be published by Springer, Singapore.

### Consultancy

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- Dr. S. Balasubramanian, ASP/ME involved in a consultancy activity for DRDO, Hyderabad in the Reverse Engineering Domain which worth of Rs. 9.44 Lakhs.

### IWS Membership

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- Fifty-six students of our Second-year Mechanical Engineering have applied for student membership in Indian Welding Society. Instructed and coordinated by Mr. V. Manivelmuralidaran, AP(II)/ME.

### Industry Institute Interaction

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- An MoU was signed between KCT and Bull Agro Implements, Coimbatore on 15.09.2018.
- Dr. C. Velmurugan, HoD/ME, Dr. S. Balasubramanian, ASP/ME, Dr. P. S. Samuel Ratna Kumar, AP/ME visited M/s. M. M. Kitchen Engineering (P) Limited, Coimbatore for having a preliminary discussion of having MoU.



- The same team visited M/s. Sakthi Gear Products (P) Ltd, Coimbatore and had discussions about recruitments and MoU.

## MEA Installation

- Mechanical Engineering Department Association was installed on 12.09.2018.



Introduction of office bearers with batches and keynote address was given by Mr. Puliuradaiyan Mahesh, CEO, Clear tech Filters, Coimbatore.



## Training

Training on SolidWorks was given to the second year Mechanical Engineering students of around 50. Training was provided by Dr. A. P. Arun, AP (II)/ME and Mr. R. S. Mohankumar, AP/ME.

## Placement

Editors join hands with the students and the faculty of the department to congratulate the following students for getting the placement in respective industries.

### M/s. Cognizant Technology Solutions

- Mr. Arun Raj A, 9487405369
- Mr. Jawahar D, 9715770700
- Mr. Saravanan S, 8508596310
- Mr. Naveen R, 9444343126
- Mr. Harikaran S, 9025121259
- Mr. Praveen Kumar M, 9445788417
- Mr. Bhuvanesh Kumar K, 9597682385
- Mr. Harish N, 8124836955
- Mr. Ashwin R, 9629989364
- Mr. Karthick S, 8428662630
- Mr. Senthamil Selvan P, 9786865029
- Mr. Yashodharan Aks, 9751119578
- Mr. Ajay Krishnan K, 9500722205
- Mr. Praveen P, 9865832955
- Mr. Kavim Kumar K, 9965112494
- Mr. Senthil Raja P, 9047533379
- Mr. Gautham Siddharth M, 9487762981
- Mr. Shreenath C, 9566548413
- Mr. Praveenkumar S, 9698156709
- Mr. Gowtham L, 8056422594

### M/s. Infosys

- Mr. Jawahar D, 9715770700
- Mr. Joel Rosario J, 9750005930
- Mr. Aravind Kumar R, 9445229474
- Mr. Kalaivendhan S, 8508508103
- Mr. Jagannathan M, 9486473864
- Mr. Vaasu Keeran, 9159080613
- Mr. Praveen P, 9865832955
- Mr. Gautham Siddharth M, 9487762981
- Mr. Sanjay S, 8695556996
- Mr. GokulRaj V, 9087703431

### M/s. BOSCH

- Mr. Sibi surya, 9585974725
- Mr. Sudharasan J N, 8667748867
- Mr. Srivathsan R, 9442922349
- Mr. Siva aadhavan M K, 7598319826

### M/s. LMW

- Mr. Venkateshwaran S, 9003836547
- Mr. Darshankumar E, 9677659669
- Ms. Prakathi D, 9842463124

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# KUMARAGURU college of technology

COIMBATORE – 641 049

## Department of Mechanical Engineering

### Vision

To facilitate mechanical engineering education, research and services that contribute to the advancement of scientific knowledge leading to social development.

### Mission

The Department is committed to provide quality education and training with emphasis on engineering fundamentals and applications to the students to be competent professionals with ethics. The department executes research and provides engineering services for sustainable development of society.

### Programme Educational Objectives (PEO's)

1. Graduates will take up carriers in manufacturing and design related sectors.
2. Graduates will be involved in the execution of mechanical engineering projects.
3. Graduates will take up educational programmes in mastering mechanical engineering science and management.

### Program Outcomes (PO's):

Engineering Graduates will be able to:

1. Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
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.
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.
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. 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.
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.
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.
8. Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
9. Individual and team work: 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 (PSOs):

1. Apply the fundamentals of engineering and mathematics to solve complex problems in the field of design and thermal sciences.
2. Apply the concepts of industrial engineering and management in the field of manufacturing engineering.