



## NEWSLETTER

## MExpress



Department of Mechanical Engineering, KUMARAGURU COLLEGE OF TECHNOLOGY

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01.12.2018 – 31.12.2018

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

Associate Editors: Mr. P. Kapil, Mr. K. Arun,

**Board of Studies (BoS) Meeting****PG – Programmes**

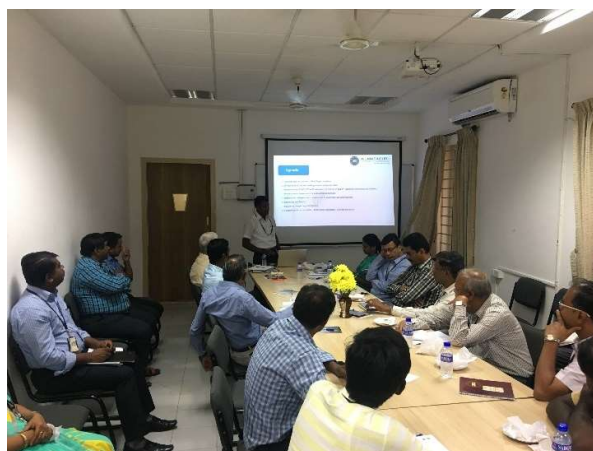
Board of Studies for PG programmes was conducted in the department on 05.12.2018.



Mr. K. Manikanda Prasath, AP/ME, Dr. M. Balaji, ASP/ME, Dr. KK Arun, AP (III)/ME and Mr. MR Navaneeth, AP/ME coordinated the meeting.

**UG Programmes**

Board of Studies for UG programmes was conducted in the department on 17.12.2018.



Dr. B. Senthil Kumar, ASP/ME coordinated the meeting.



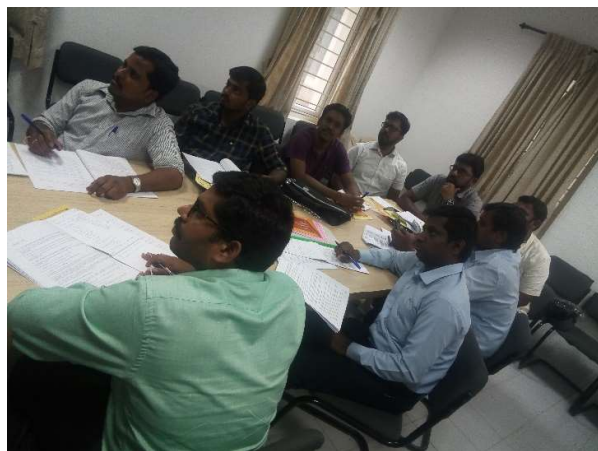
Curriculum and syllabus for R2017 and R2018 were presented module-wise (Design, Thermal and Manufacturing) and discussed along with general academic discussions.

## Programmes Organized

- Department along with Coimbatore Productivity Council, Coimbatore organized a training on "ISO 9001 2015 Internal quality auditors" on 22.12.2018 which was handled by Mr. S. Ranganathan, Executive Trainer, CPC, Coimbatore.



Mr. M. A. Vinayagamoorthis, AP (II)/ME and Mr. R. S. Mohan Kumar, AP/ME coordinated the event.



## Programmes participated

- Dr. K. M. Senthilkumar, ASP/ME along with Mr. K. K. Arun, AP (III)/ME, participated in a Short term Training Program on Correlation of AI & ML in Research Perspective at Coimbatore Institute of Technology from 13.12.2018 to 19.12.2018.
- Mr. S. Prabhu (Sr.), AP/participated in a One-week National workshop on Advances in computational mechanics at SASTRA Deemed University from 10.12.2018 to 15.12.2018.

- Dr. P. K. Giridharan, Professor/ME attended Regional Higher Education Summit on 19.12.2018 and 20.12.2018.
- Mr. K. Manikanda Prasath, AP/ME, Mr. S. Suresh, AP/ME, Dr. P. S. Samuel Ratna Kumar, AP/ME attended CII Conference on "Automation" at Hotel Residency Towers, Coimbatore on 15.12.2018.
- Dr. C. Velmurugan, Professor & Head, Attended Doctoral Committee Meeting at Anna University Regional Campus, Tirunelveli on 10.12.2018.
- Dr. N. Sangeetha, Sr. ASP/ME, attended at One day Workshop on Introduction to Adams at Vivanta Surya on 04.12.2018. She also visited General Motors, Bangalore. Further, she got trained in Vibration Measurement at KCIRI.
- Dr. S. Balasubramanian, ASP/ME, attended a short-term course on "Advances in Laser Additive Manufacturing And Laser Material Processing" at IIT Kharagpur during 17.12.2018 and 21.12.2018.



## Industry Institute Interaction

- This month, the department signed MoU with the M/s. Cleartek Filters, Coimbatore. MoU was initiated and coordinated by Dr. P. K. Giridharan, Prof./ME.

## Journal Paper Review

Reviewed a paper titled ""Simulation and Experiment of a Pre-twisting Ring Spun Based on Jet Vortex Field" for Textile Research Journal.



## Journal Publication

Dr. M. Balaji, ASP/ME, et al published a paper on "Applying balanced scorecards to supply chain Performance" in the ISE Magazine, November 2018.

## Internship at Abroad

Dr. K. M. Senthikumar, ASP/ME arranged an internship at Abroad for a M. E. CAD/CAM student.

## Guest Lecture Delivered

Prof. T. R. Sukumar, ASP/ME delivered a Guest Lecture on Engineering Mechanics at SNS College of Technology, Coimbatore on 17.12.2018.

## Student Participations

Mr. S. Santhosh and Mr. S. Karthick of final year 'B' section students under the Guidance of Mr. S. Ramanathan, AP (II)/ME presented a technical paper titled "Experimental Investigation of Fluid Flow and Heat Transfer using Flapping Baffles" during Technology Day conducted by ELGI Equipments, Coimbatore on 15.12.2018 at Le' Meridian, Coimbatore.



- The following students are participated in 6 days iCamp (Technical Hackathon) conducted by FORGE between 19.12.2018 – 24.12.2018

- Mr. Arun K
- Mr. Vijaybalaji S
- Mr. Durgesh

## Inplant Training / Internship

The following students were attended the inplant/internship as detailed below

Student Name	Industry	Period
Mr. Umapathi P Mr. Sethu Y Mr. Gowtham S	M/s. Salem Steel Plant	17.12.2018 – 22.12.2018
Ms. Rushethra V N Mr. Kannathasan K Mr. Sethu Y Mr. Umapathi P Mr. Mohammed Hakkim Haris	M/s. Sri Gowrish CNC Private Limited	10.12.2018 – 16.12.2018
Mr. Jim Fantin J	M/s. Toolfab Engineering Industries Pvt. Ltd, Trichy	17.12.108 – 21.12.2018
Mr.Arunkumar A Mr.Balaji P Mr.Sachinjith K R Mr.Gowtham S Mr.Bala kumaresh T	M/s. Rashi steels at Coimbatore	03.12.2018 – 08.12.2018
Mr. Kishore Ganesan	M/s. Al-mulla group	12.12.2018 – 03.01.2019
Mr. Mohan Kumar Mr. Ajith Kumar S	M/s. Flowlink system	10.12.2018 – 15.12.2018
Mr. Ganesh Prakash P Mr. Aswath D Mr. Kavinprasath S	M/s. Amarun foundries	10.12.2018 – 15.12.2018
Mr. Gudan A Mr. Barath M	M/s. TVS	17.12.2018 – 22.12.2018
Mr. Manish Kumar	Automotive industry simulation	13.12.2018 – 21.12.2018

Student Name	Industry	Period
Mr. Logesh Y	NLC-IL, Neyveli	10.12.2018 – 22.12.2018
Mr. Pathma Guru Raja A M N	M/s. TVS Training and Services, Chennai	
Mr. Karthik Kumaran M	M/s. Technopac automation and control	02.12.2018 – 19.12.2018
Mr. Raaghul V	M/s. SP tools and Automation	09.12.2018 – 19.12.2018
Mr. Anthony Steeban A Mr. Hari Prasad R Mr. Kumaran B Mr. Deepan jaykumar Mr. Jagadesh R	KCT Garage	12.12.2018 – 21.12.2018

### Upcoming Events – Yugam 2019

#### 1. **EVENT NAME:** FUSE WITH FLUX – 07.02.2019



##### **EVENT DESCRIPTION:**

**ROUND 1:** This is an objective type round consisting of technical MCQ's.

**ROUND 2:** The contestants who clear the round 1 will be allowed to perform basic Welding operations.

**ROUND 3:** Testing the skills and knowledge in Welding.

##### **RULES AND REGULATIONS:**

- 1) Shoes must be worn.
- 2) Must know the basics and precautions in welding.
- 3) Judges' decisions are final.
- 4) It's an individual event.
- 5) College and Yugam ID card is mandatory

**Event Incharge Name:** Mr. Rallish Rahuman Khan J, 9894696241

#### 2. **EVENT NAME:** Mr. MACHINIST – 07.02.2019



##### **EVENT DESCRIPTION:**

**ROUND 1:** This is an objective type round consists of technical MCQ's.

**ROUND 2:** The contestants who clear the round 1 will be allowed to perform basic LATHE Operations.

**ROUND 3:** It will be based on testing the skills and knowledge in LATHE.

##### **RULES AND REGULATIONS:**

- 1) Participants must wear leather shoes
- 2) Use of electronic gadgets is prohibited
- 3) Judges results are final
- 4) It's an individual event
- 5) College and Yugam ID card is mandatory.

**Event Incharge Name:** Mr. Balavignesh S, 9865552570, 7904191778

### 3. EVENT NAME: CRACK WITH CODE – 08.02.2019



#### EVENT DESCRIPTION:

**ROUND 1:** This is an objective type round consists of technical MCQ's.

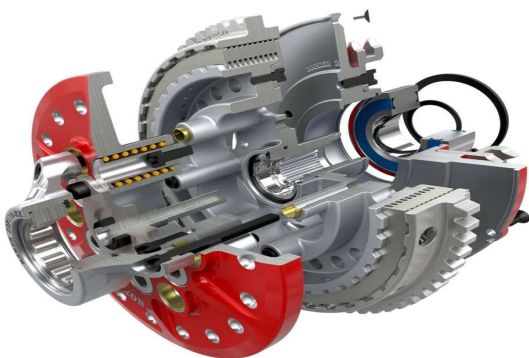
**ROUND 2:** The selected contestants must generate the code for machining a component using Edge CAM Software.

#### RULES AND REGULATIONS:

- 1) Participants must have ample know EdgeCAM software.
- 2) It is an individual event
- 3) Judges decisions are final
- 4) Must carry their college identity card (original) and Yugam Identity card

**Event Incharge Name:** Mr. Murali Krishnan R, 9994564114, 9442964777

### 4. EVENT NAME: CRAZY CAD – 09.02.2019



#### EVENT DESCRIPTION:

**ROUND 1:** MCQs related to engineering graphics and aptitude. This round is an elimination round.

**ROUND 2:** The selected participants from round 1 are eligible to the second round. In this round, part diagram modelling, assembly drawing skills and conversion skills (Solid Works, CATIA, CREO, Inventor, Fusion 360) are tested. If you are using a modelling software other than the above listed, inform us a week before. There will be a minimum marks to enter the next round. The students who passed the minimum cut-off marks can enter final round.

**ROUND 3:** The final round is simulation of mechanisms, and product development skills for given real time problems are tested. The final score will be the summation of second and final round scores. In case of tie, you will be given a time challenge.

#### RULES AND REGULATIONS:

1. Usage of electrical gadgets is prohibited
2. Judges decisions will be final.
3. It's an individual event
4. College and Yugam ID card is mandatory.

**Event Incharge Name:** Mr. Gokul Anandhan S, 9790086479

### 5. EVENT NAME: SOLUTIONERISE – 08.02.2019



#### EVENT DESCRIPTION:

**Round 1:** A real time problem will be given to the participating team. The team must find an appropriate solution for the given problem. A detailed solution for a problem must be send on or before 31st Jan 2019. Idea should be unique and should not be copied. The best idea will be selected for the next round. The selected teams will be contacted via e-mail.

**Round 2:** The selected team from first round must design, analyse and fabricate the solution. The selected team must present their idea with their

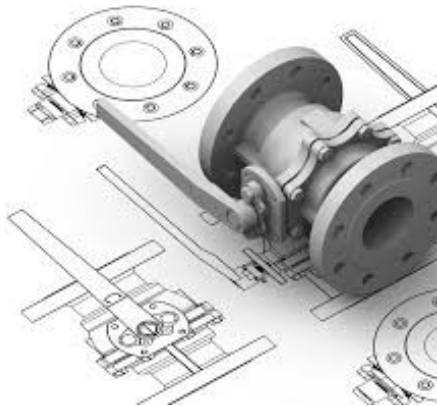
design and prototype in front of the judges in KCT campus, Coimbatore on 8<sup>th</sup> February 2019. The two best presentations will be announced as title winner and runner-up of Solutionerise 2019.

#### **RULES AND REGULATIONS:**

1. The Participating team should have not more than five members
2. The team members can be from any department.
3. Solution should be unique and should not be copied.
4. Plagiarized ideas will be disqualified.
5. Candidates should send their idea in PDF format.
6. The abstract should be sent to our mail id on or before proper date.
7. The selected team will be intimated through their respective mail ID.
8. The selected candidates should bring their ID card at the time of final presentation.
9. Decision of the event coordinators and judges will be final and will not be subjected to any further discussions.
10. Yugam ID card is mandatory.

**Event Incharge Name:** Arun K, 9047296929, 7598244154

6. **EVENT NAME:** BEAT THE CLOCK – 09.02.2019



#### **EVENT DESCRIPTION:**

**Round 1:** The prelims consist of technical questions based on mechanical engineering.

**Round 2:** The participants who crack the Prelims will qualify for the second stage. Participants must find the hidden parts by using your clues given by the coordinators within the time limit.

**Round 3:** The final round will be based on your skills and knowledge towards assembling your parts that you found in second round within a time limit.

#### **RULES AND REGULATIONS:**

- 1) Team of 4 members will be allowed
- 2) Judges decisions are final
- 3) Participants must follow their safety precautions.
- 4) Must carry their college identity card (original) and Yugam identity card

**Event Incharge Name:** Ms. Archana P, 9942365365, archana.16me@kct.ac.in

7. **EVENT NAME:** TRASH TO TREASURE – 09.02.2019



#### **EVENT DESCRIPTION:**

**ROUND 1:** The prelims will be a technical 'connexions' round, with 50 questions.

**ROUND 2:** Those participants who crack the prelims will qualify for second round. To create a product or mechanism by using scrap is the second round. The product or mechanism will be tested by the judges.

#### **RULES AND REGULATIONS:**

- 1) Team of 4 members will be allowed
- 2) Judges decisions are final
- 3) Participants must follow their safety precautions.
- 4) Must carry their college identity card (original) and Yugam Identity card

**Event Incharge Name:** Mr. Vasanth E, 7708001946



**8. EVENT NAME: HOVER RACING – 07.02.2019****EVENT DESCRIPTION:**

**Round 1:** It will time based round of 3 laps and two chances will be given, best of one will be considered. Time penalties for cars leaving the track are at the sole discretion of the organizers.

**Round 2:** This round requires the participants to manoeuvre their hovercrafts around the given track.

**Event Incharge Name:** Arun. GP, 8098265037

**9. EVENTNAME: RC NITRO RACING – 08.02.2019****EVENT DESCRIPTION:**

**Round 1:** It will time based round of 3 laps and two chances will be given, best of one will be considered. Time penalties for cars leaving the track are at the sole discretion of the organizers.

**Round 2:** This will be a one on one race and the racers will through lucky slot. Time penalties will also be considered. Winners will be qualified to the final round.

**Round 3:** This is the final round. The Round consist of 4 laps the winners will be awarded. Event head and Coordinators decision will be final. Violation of rules by any team will be disqualified.

**Event Incharge Name:** Mr. Dharunkumar S, 8508693355, 9080173761

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# KUMARAGURU

## college of technology

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 center that imparts quality higher education through its program in the domain of Mechanical Engineering to meet the changing needs of the society.

#### DEPARTMENT MISSION

Bring about supremacy in curricular and co-curricular sustained activities with competent faculty through teaching and research, that generates technically capable mechanical engineering professionals to serve the society with delight and gratification.

#### PROGRAMME OUTCOMES (POS)

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.

#### PROGRAMME EDUCATIONAL OBJECTIVES (PEOS)

- PEO 1 :** Graduates will take up careers in manufacturing and design related sectors.
- PEO 2 :** Graduates will be involved in the execution of mechanical engineering projects.
- PEO 3 :** Graduates will take up educational programmes in mastering Mechanical Engineering Science and Management.

#### PROGRAMME SPECIFIC OUTCOMES (PSOS)

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.