



KNOWLEDGE
CHARACTER
TRANSFORMATION
October to December 2018

NEWS LETTER

Mechatronics Engineering

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MECHATRONICS

Is a branch of engineering that focuses on designing, manufacturing and maintaining products that have both mechanical and electronic components

INSUGURATION OF THE DEPARTMENT ASSOCIATION OF MECHATRONICS ENGINEERING SSOCIATION



Mr.M. Sathish Nair, Founder and Managing Director of ESS EMM Corporation, Food and Industry Automation, Coimbatore was the Chief Guest of the Department Association inauguration on 11 Oct.



An illustrious contributor with twenty years of industrial experience specialised in Automating the manual-intensive cooking process all over the world gave an informative and thought-provoking speech on the importance of technical knowledge development and types startup company initiatives.



Mr.M. Sathish Nair,
Founder and Managing Director of ESS EMM
Corporation, Food and Industry
Automation, Coimbatore

TEACHERS DAY AWARDS



✚ **Dr.K.Akila /ASP** who is recognized for Award of Merit – Research during the year 2017-18



✚ **Dr.B.Sabitha /AP(SRG)** who is recognized for Award of Engal Aasan during the year 2017-18



✚ **Mr.R.Raffik /AP** who is recognized for Award of Merit for Student Development

FACULTY RECEIVING Ph.D



✚ **Dr.B.Sabitha**, Assistant Professor(SRG) completed his PhD and received the degree on 22.12.2018. Her area of research is Micro Electro Mechanical System and Microfluidics.

ONLINE CERTIFICATION COURSE

- ✚ **Dr.K.Akila** completed Online Certification course on MATLAB with Image Processing from Scratch 14.11.2018
- ✚ **Mr.T.Suresh** completed Online Certification course on Introduction to Operations Research 30.09.2018
- ✚ **Mr.R.Raffik** completed Online Certification course on Engineering Mechanics 17.10.2018

DELIVERED GUEST LECTURE

- ✚ **Dr.A.Vasuki** Delivered a lecture on “How to write a technical paper?” to II, III & IV year MCE students as part of MCE Association programme on 01.11.2018 from 2.30 to 3.30 pm.
- ✚ **Dr.A.Vasuki** delivered a lecture on Hands-on training on MATLAB for III year MCE students on 29.10.2018 from 2.40 to 4.40 pm, conducted in CoE on Distributed Control Systems (Yokagawa), Dept. of EIE, KCT.

Dept. Advisory Board Meeting 27.11.2018



Outcome of the event:

- ✿ Learnt the industrial perspective of vibration testing.
- ✿ Latest equipment on vibration testing.
- ✿ Designing an elective course based on vibration testing

Dept. Board of Study Meeting 30.11.2018



- ❖ Discussion of Program Vision, Mission, Graduate Attributes (GA) and Program Specific Objectives (PSO).
- ❖ A brief outline of our current curriculum (2017&2018 regulation).
- ❖ Approval of 3rd to 4th semester curriculum and syllabus (2018 regulation).
- ❖ Approval of 5th to 6th semester curriculum and syllabus (2017 regulation).
- ❖ Any other matters relevant to syllabus of Mechatronics Engineering Course.
- ❖ chairman explains about the ProtoSem and features to the experts in regard with students development. The experts well received and appreciated the ProtoSem concept of education to the students.

BOOK CHAPTER

Dr. Vasuki

Mr.Rajkumar R, Dr.A.Vasuki (2018) Histogram Modification and Bi-level Moment Preservation Based Reversible Watermarking. In: Hemanth D., Smys S. (eds) Computational Vision and Bio Inspired Computing. Lecture Notes in Computational Vision and Biomechanics, vol. 28. Springer, Cham.

PAPER REVIEW

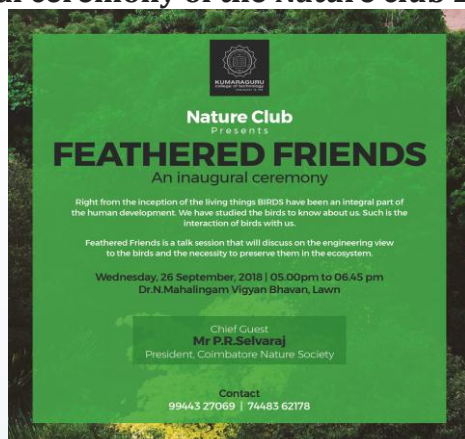
- ✿ Dr.A.Vasuki Journal paper titled, "A deburring method combined spatial and frequency domain", IET Image Processing, October 2018.
- ✿ Dr.A.Vasuki Journal paper titled, "A Novel Low Light Image Enhancement Based on Non-uniform Illumination Prior Model", IET Image Processing, October 2018.
- ✿ Dr.A.Vasuki Journal paper titled, "Multivariate signal decomposition and feature selection based on an optimal noise-assisted multivariate empirical mode decomposition", IET Signal Processing, November 2018
- ✿ Dr.A. Vasuki Journal paper (revision 1) titled, "A Novel Low Light Image Enhancement Based on Non-uniform Illumination Prior Model", IET Image Processing, November 2018.

STAFF PARTICIPANTS

- ✿ Dr.R.Venkatesan participated in CII - Conference on Automation on 15.12.2018
- ✿ Dr.A.Vasuki participated Two Days National Workshop on "5G Technology and its Applications", during 12th – 13th October 2018 at Department of ECE, PSG College of Technology, Coimbatore.
- ✿ Mr.J. Sivaguru participated in Solladal (patti mandram) by Tamil Mandram at Kumaraguru College of Technology.
- ✿ Mr.J.Sivaguru has participated in the workshop on Yoga for All-Eye Campaign 14.11.2018
- ✿ Mr.P.Anush participated in the one-day Technical Workshop on the topic - Electric and Hybrid Vehicles - a part of the Industry Skill Development Program 2018 organized at Cochin on 10th November 2018
- ✿ Mr.P.Magudapathi participated Forge i Mentor to understand basics of Electronics and its application in Industries.

EVENTS ORGANIZED

Mr.P.Magudapathi organized by
Inaugural ceremony of the Nature club 26.9.2018



Nature always wears the colours of the spirit.

In the Ecoseries talk it was on **Bio-composite materials** this week on 25 September. Bio- composites as next generation sustainable building materials, bio-composite for roofing and concrete are the two major topics that were discussed. G.Rubini and R. Aravind of III Civil engineering facilitated the discussion and group had a solution based discussion.



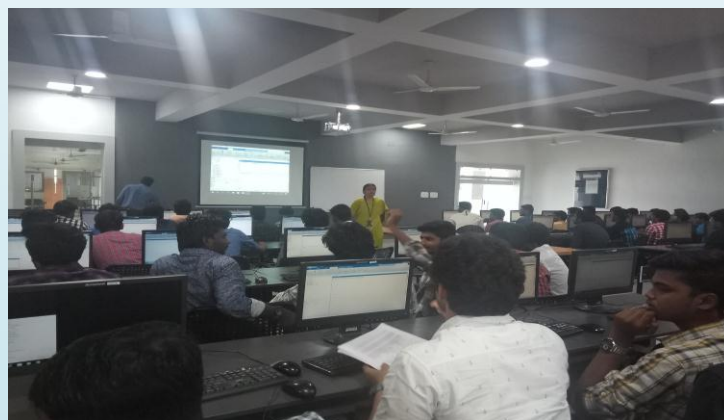
One of the highlight discussions was on the opportunity to supplement and also eventually replace petroleum-based composite materials to new agricultural, environmental, manufacturing and consumer benefits



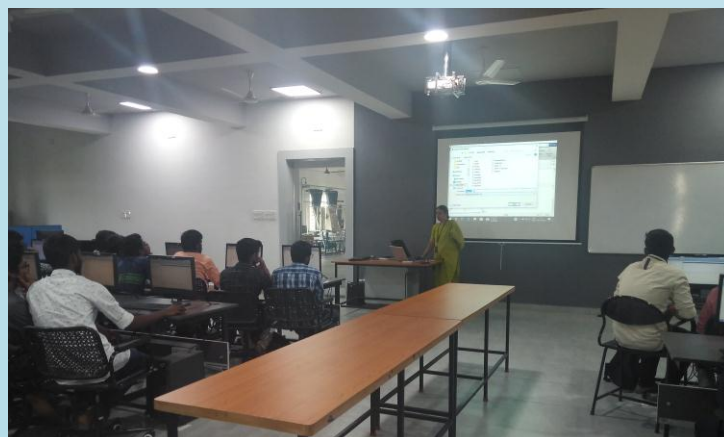
Dr.A.Vasuki & Dr.K.Akila organized by
Hands on training on MATLAB on 29.10.2018



On the 29th October 2018, the department of Mechatronics had organized Hands on Training on MATLAB for 74 students of the Fifth semester BE. The sessions were Handled by the senior faculty of the department.



Dr. A. Vasuki. In this training, the students were trained on fundamentals of MATLAB, generating signals and plotting continuous time signals & discrete time signals.



KANNAPPAN KARTHIK



SECOND YEAR in KCT

- ✚ ANNA UNIVERSITY ZONAL TOURNAMENT - **RUNNERS** [SNS College of Engineering]
- ✚ CDTA INTER CLUB LEAGUE TOURNAMENT (d - division)- **1 PLACE** [Coimbatore]
- ✚ KICS 2018 - **WINNERS** [Kumaraguru College of Technology]
- ✚ 9TH CENTIES TOURNAMENT - **3 PLACE** [Bannariamman institute of technology]



✚ THIRD YEAR in KCT

- ✚ ANNA UNIVERSITY ZONAL TOURNAMENT - **WINNERS** [SNS college of engineering]
- ✚ CDTA INTER CLUB LEAGUE TOURNAMENT (C division)- **1 PLACE** [Coimbatore]
- ✚ ANNA UNIVERSITY INTERZONE TOURNAMENT - **RUNNERS** [SSN institutions]
- ✚ 10th CENTIES TOURNAMENT - **WINNERS** [Bannariamman Institute of Technology]



Kannappan Karthik (III Year), He started the game of tennis in his higher secondary school days and by the way the passion towards this game has took me over to achieve greater heights. This would have not been possible without his coaches and co-partners who played with his all throughout. This game also thought his how to face the circumstances in his life. Thereby the whole credit goes to his parents because without their support and guidance this would not have been possible.

FIRST YEAR in KCT

- ✚ ANNA UNIVERSITY ZONAL TOURNAMENT - **WINNERS** [SNS College of Engineering]
- ✚ CDTA INTER CLUB LEAGUE TOURNAMENT (e division)- **1 PLACE** [Coimbatore]
- ✚ PARTICIPATION IN ANNA UNIVERSITY INTERZONE TOURNAMENT [SSN Institutions]
- ✚ OPEN STATE TENNIS TOURNAMENT - **3 PLACE**
- ✚ 8TH CENTIES TOURNAMENT - **RUNNERS** [Bannariamman institute of technology]
- ✚ KICS 2017 Tournament – Winner 1st PLACE





Dr.M.Saravana Mohan, ASP /MCE organised a field trip to TNAU, Coimbatore for the open elective subject "Automation in Agriculture" on 27.09.2018. A group of 45 KCT students from Mechatronics, ME, ECE, EEE, EIE, IT, CSE, Auto departments belongs to open elective subject "Automation in agriculture" visited to Agricultural Machinery & Research Centre(AMRC), Water Technology Centre(WTC), Food & Agri. Process Engineering Centre (FAPE). Dr.M.Balakrishnan, Associate professor well explained the facilities of post-harvest technology centre useful for farmers Mr. Muthu of AMRC, TNAU explain the students about the various research works in developing Agricultural Machineries. useful for the farmers.


FIELD VISIT FOR TAMILNADU AGRICULTURAL UNIVERSITY. COIMBATORE

Dr.Ganapathy, Prof & Head, Dr.Arun, Assistant Professor of (FAPE) explain the students about the various Food & Agricultural Process Engineering products in R&D The students exposed various new research projects involved in the development of the agriculture. The students also understand the scope of doing new interdisciplinary projects adhering to their curriculum.



Our PLACEMENT

Congratulations!

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| KARTHIKEYAN P 15BMC008 IDBI | RAMPRASAD G 15BMC038 My slate for the curious | GOWTHAM A M 15BMC041 WIPROW |
|  |  |  |
| DINESHKUMAR P 15BMC042 My slate for the curious | MANOJ GUHA K 15BMC049 Brakes India | PRADEEPKUMAR S D 15BMC054 IDBI |
|  |  |  |
| PRAVEEN E M 15BMC057 My slate for the curious & <u>Nissi Infotech</u> | NITHYA PRASATH.T 15BMC209 <u>Hirotec</u> | DEEPAK KUMAR 15BMC212 <u>Hirotec</u> |

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| VIGNESH N 15BMC005 <u>Ninjakart</u> | VIGNESH M 15BMC018 <u>Ninjakart</u> | AJAY SELVAKUMAR N 15BMC028 <u>Ninjakart</u> |

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| PREMSANTH N 15BMC032 <u>Carborundum Universal Limited</u> | PAVITHRAN C 15BMC053 <u>Ninjakart</u> | VIJAYRAM.K 15BMC205 <u>Ninjakart</u> |

STUDENTS ORGANIZED

Workshop on PCB Designing and Robotics and Automation Club



The human foot is a masterpiece of engineering and a work of art. Engineers are good at learning things theoretically but they fail many times when it comes to the practical application of the theoretical knowledge. Robotics and Automation Club of KCT conducted a workshop on PCB designing. This workshop was conducted by Arjunraj and Manodhayan of Final Year Mechatronics Engineering on 8/9/2018. More than 70 students from various years participated in the workshop.



It changed the perspective of students on seeing and learning about electronic components and designing of circuits for simple application. Students were also taught of ways to enrich their career such as interning as PCB designers and how they can also start their careers as PCB designers as freelance workers. Thus the workshop provided the spark to ignite their passion for electronics and gave different perspectives.





INSITUATION

VISION

The vision of the college is to become a technical University of International Standards through continuous improvement.

MISSION

Kumaraguru College of Technology 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 the students on the path to leadership.

DEPARTMENT

VISION

The vision of the department is to achieve academic and industrial excellence in industrial automation research and innovative product development driven by mechatronics systems.

Mission

- Impart the right blend of knowledge and skills to students and enable them to apply it in real life situations.
- Motivate the students towards interdisciplinary research to cater to the local and global needs.
- Achieve innovation in developing industrial products with social responsibility



PROGRAM EDUCATIONAL OBJECTIVES (PEO)

1. Develop innovative and sustainable products with multidisciplinary Engineering expertise.
2. Solve complex engineering problems by applying mechanical, electrical and computer knowledge and engage in lifelong learning in their profession.
3. Work or pursue higher education in multicultural, multilingual and multinational environment with competent oral and written communication.
4. Lead and contribute in a team entrusted with professional, social and ethical responsibilities.

PROGRAM OUTCOMES (PO)

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. Design and develop Mechatronics systems to solve the complex engineering problem by integrating electronics, mechanical and control systems.
2. Apply the engineering knowledge to conduct investigations of complex engineering problem related to instrumentation, control, automation, robotics and provide solutions.



வணங்குகிறோம் வழிநடப்போம்
உங்கள் வாழ்க்கை - எங்கள் பாதை



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