



KUMARAGURU
college of technology
character is life

Department of Automobile Engineering, Kumaraguru College of Technology, Coimbatore

For Internal circulation only

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Editor: Dr. S. John Alexis, Prof. C. Vasantharaj, C. Naveen Kumar

Message from the HoD

Greetings from the Department of Automobile Engineering!

Technology is advancing every hour and every day. Every new Technology is addressing the social needs of people or Research enhancements. We at KCT are working towards Electric Vehicles and Autonomous Vehicles. Innovation is the best strategy to beat the competition in the globalized economy and it is the driving force for sustained growth also innovations not just the idea but transformation of that idea into commercial and social value. Our passion for creativity leads us to delve deep into the world of machines. The challenges we face, and the experience gained out of it makes us strong, we infuse knowledge with passion for Automobiles to embellish our students with holistic skills, required for their professional world.

Vision

To become a renowned Learning Centre in the field of Automobile Engineering for its Teaching, Practice and Research.

Mission

- *To prepare graduates for successful careers in industry, public sectors, and academia.*
- *To update the laboratory facilities to aid teaching, learning and skill development.*
- *To provide required learning tools for equipping the teaching learning process.*
- *To inculcate the Entrepreneurial mind set to run family business or start-up companies.*

Program Educational Objectives (PEO)

Within a few years after graduating from the Automobile Engineering Department at KCT

1. *Graduates will be automotive engineering practitioners in industry or government who would design, and develop products, processes or services.*
2. *Graduates will be automotive engineering professionals or entrepreneurs engaged in adopting, developing or deploying technology in engineering industry or services.*
3. *Graduates will function in professional, managerial or leadership roles with human values and social responsibility.*
4. *Graduates will pursue higher studies in engineering or management.*
5. *Graduates will pursue career paths in teaching or research.*

HoD's Desk

The academic year 2018-19 is going to end and our engineers of 2015 – 2019 batch are going to leave us as students and join the competitive world as well-trained professionals, I on behalf of all the Faculty members wish all success to them in their future endeavours.

There is a lot of innovations in their project work starting from building a whole new electric Go-Kart, followed by converting two-wheeler to three-wheeler, extracting Biodiesel form algae, passive safety system to blast of side window to provide easy trapped passenger exit, backbone comfort in cars while long driving etc. There is lot of learning for us in this as well.

Congratulations to all the racing teams as well who worked hard to get their vehicle ready, keep up the spirit teams. Special mention to GOKART team Zeall'18 who bagged second place at Bharat Formula Karting Championship this year.



Industry Connect

Guest Lectures:

- Guest Lecture on "Certificate Training Program" by Mr.Sampathkumar, GM Trainee Head, Roots Industries, Coimbatore.
- Guest Lecture on "Brake Design" by Mr.K.N.Balaji, Independent Automotive Consultant and Advisor.
- Guest Lecture on "GD & T Design Thinking" by Dr.P.Karuppuswamy, Professor & Head, Mechanical Engineering, Sri Ramakrishna Engineering College, Coimbatore.

One Credit Course:

- One credit course on "Lean Manufacturing and Six Sigma" (U15AUIN07) by Mr.P.Vasu, Senior Vice President, Brakes India Chennai.
- One credit course on "Motorsport Engineering" (U15AUIN01) by Mr.L.Shanmuga Raj, Spitfire Automotive Performance
- One credit course on "Electronic Engine Management Systems" by Mr.G.Karudaiyar, IOT Developer, IOT Geeks, Chennai.

Department Advisory Board – DAB 2018



Event on Product Lifecycle Management

SAEINDIA in association with Department of Automobile Engineering, KCT conducted the Professional Development Programs on "Product Lifecycle Management" on 13th October at Kumaraguru College of Technology, Coimbatore. Mr. Kushaal Desai, PD-IT Business Engagement, Mahindra Rise, Mahindra World City, Kanchipuram District, Chengalpattu, Tamil Nadu 603004.



Guests:

1. Mr. R. Srinivasa Raghavan, Manager – Projects SAE Responsible for all activities related to Publications, Website & Professional Development Programs organized by SAEINDIA.
2. Mr. S. Ilangoan, Manager – CDS Events SAE INDIA. Convenor for Professional Development Programs on Product Lifecycle Management.

National Conference

Department of Automobile Engineering had organized One Day National Conference on "Automotive Systems Design Manufacturing and Integration" at KCT on 28th April 2018.

We have received total of 73 papers out of which 19 papers have been accepted for publication. In these 6 papers are from KCT faculty and 13 Papers from external participants. The selected papers have been published in Scopus Indexed and UGC approved journal "International Journal of Vehicle Structures and Systems (IJVSS)".



Student Event Participation and Achievements

Mr. N. Raghunandhan, Mr. D. Kavin, Mr. K. Rathish, Mr. K. Rohan Prasath, Mr. M. Prithiswar, Mr. S. Karthikeyan, Mr. N. R. Naveen Saravanan attended Professional Development Program on "Product Lifecycle Management" on 13th October at Kumaraguru College of Technology, Coimbatore organized by SAEINDIA in association with Department of Automobile Engineering, KCT.

Mr. R. Sharook, Mr. Mounesh, Mr. Rajshylendran has presented paper in an International Conference on Technological Advances in Mechanical Engineering.

Mr. Mounesh and Mr. Mothilal has been active members in drama club as well as a part of which they participated in an Inter college cultural events held in Pondicherry where they won the following events such as Variety show, Movie dubbing, ADZAP, PIMS, Ship wreck.

Mr. K. Darshan Kumar, Mr. K. Natarajan, Mr. S. Prawin Khumar, Mr. B. Kathirvel Shunmugam attended One day workshop on "Automotive Power Train Spark'18", Madras Institute of Technology, Chennai.

Mr. Deepan Chakravarthy has participated in the National Level Wushu Championship at Assam Regimental Centre, Shillong, Meghalaya and secured sixth place.

Paper Publications

"Evaluation of Mechanical Properties of MWCNT/Nanoclay Reinforced Aluminium alloy Metal Matrix Composite", IOP Conf. Series: Materials Science and Engineering 346 (2018) 012013.

Dr. S. John Alexis

Improved Mechanical Properties of AA5083 Reinforced with Multiwall Carbon Nano tubes for Automobile Applications, International Journal of Vehicle Structures & Systems, ISSN: 0975-3060 (Print), 0975-3540 (Online) DOI: 10.4273/ijvss.10.4.10 © 2018 Mech Aero Foundation for Technical Research & Education Excellence.

Dr. S. John Alexis

Electronic Differential Controller for Electric Vehicle, International Journal of Mechanical and Production Engineering Research and Development (IJMPERD) ISSN(P): 2249-6890; ISSN(E): 2249-8001 Vol. 8, Special Issue 7, Oct 2018, 473-482

Dr. G. Thenmozhi

Simulation of Cruise Control System Using Dspace With Different Controllers, International Journal of Mechanical and Production Engineering Research and Development (IJMPERD). ISSN (P): 2249-6890; ISSN (E): 2249-8001 Vol. 8, Special Issue 7, Oct 2018, 461-472.

T. Karthik, G. Thenmozhi

Thermodynamic performance of automobile air conditioners working with R430A as a drop-in substitute to R134a, 123 Journal of Thermal Analysis and Calorimetry an International Forum for Thermal Studies ISSN 1388-6150

J. D. Andrew Pon Abraham

Performance Improvement of Racing Engine Using Simulation Study and Experimental Validation, International Journal of Pure and Applied Mathematics, Volume 118 No. 20 2018, 19-25, ISSN: 1314-3395.

Mr. R. Kishore

Single Pedal Mechanism for Leg Amputated Person and For the Reduction of Reaction Time, F2018/F2018-VCP-053.

Mr. R. Kishore, Mr. B Arun, Dr. S. John Alexis

Development of Image Acquisition System to Eliminate Blind Spot Of A- Pillar, International Journal of Mechanical and Production Engineering Research and Development (IJMPERD) ISSN (P): 2249-6890; ISSN (E): 2249-8001 Vol. 8, Special Issue 7, Oct 2018, 145-151.

Mr. G. Rajkumar, Mr. C. Naveen Kumar

Measurement of Vibration in Different Parts of the Two-Wheeler and its Harmfulness to Human Body, International Journal of Mechanical and Production Engineering Research and Development (IJMPERD) ISSN(P): 2249-6890; ISSN(E): 2249-8001 Vol. 8, Special Issue 7, Oct 2018, 493-501.

Mr. C. Naveen Kumar, Mr. G. Rajkumar

Development of Automatic Fresh Air Intake and Window Opening Safety System for Four Wheelers, International Journal of Mechanical and Production Engineering Research and Development (IJMPERD) ISSN (P): 2249-6890; ISSN (E): 2249-8001 Vol. 8, Special Issue 7, Oct 2018, 305-312.

Mr. S. Satish

Workshops and conferences

Attended

One-day workshop on "How to Make you Own 3D Printer" at VIT Chennai Campus

Mr. S. Santhoshkumar, Mr. T. Sivakumar

One Day Seminar On "Future Trends in Mobility Technology" SRM University Chennai

Dr. S Mohankumar, Mr. B. Arun

ICT Academy is organizing 5 days Faculty Development Program on "Auto CAD (Autodesk)" at Sri Krishna College of Technology, Coimbatore.

Mr. S. Santhoshkumar, Mr. T. Sivakumar

SUPRA SAEINDIA 2018 at Buddh International Circuit, Greater Noida, UP.

Mr. R. Kishore & Mr. B. Arun

FDP on Computational Research Techniques using MATLAB (CRT2018), at NIT Warangal

Mr. S. Satish & Mr. B. Arun

Quality Improvement Programme (QIP), IIT Bombay

Mr. S. Satish

International Automotive Design Conclave 2018 (Organised by CII) at Bangalore

Mr. J. Sai Ganesh

PLM (Product Lifecycle Management) Course at IIT, Chennai

Dr. S. John Alexis

Two & Three-Wheeler Conference at Pune

Mr. S. Sivakumar, Dr. S. John Alexis

Hands on Training on Lauterbach debugger and Aurix Controller at Bangalore

Mr. A. Prabhakaran

International Conference on Technological Advances in Mechanical Engineering (ICTAME)

R. Kishore & Mr. C. Naveen Kumar, G. Rajkumar

The Professional Development Programs on the topic " Product Lifecycle Management"

Mr. G. Rajkumar, Mr. T. Karthik, Mr. J. Sai Ganesh, Mr. C. Naveen Kumar

Book Chapter Published

Dr. S.John Alexis

Book Title: MWCNT reinforced Aluminium 5-series with improved damping / corrosion.

Contributed Chapter: MWCNT reinforced Aluminium 5-series with improved damping / corrosion. Pg. 200

Publisher: Lambert Academic, Germany.

Year of Publication: July 2018.

ISBN Number: 9789535168737.

Dr. S.John Alexis

Book Title: Hysteresis of Composites.

Contributed Chapter: Damping Study on MWCNT Reinforced Al Composites. Pg. 16.

Publisher: Intech, UK.

Year of Publication: 2019

ISBN Number: 9786139850549.

Dr. S.John Alexis

Book Title: Carbon-Based Nano fillers and Their Rubber Nano composites-Elsevier.

Contributed Chapter: Synthesized Carbon Nano tubes and their Applications. Pg. 109 – 122.

Publisher: Susan Dennis, Netherlands.

Year of Publication: 2019

ISBN Number: 9780128132487.