Introduction

From HOD's Desk

We are happy to release the newsletter of the Department of Automobile Engineering “First Gear” June 2021 issue. First Gear is a magazine compiled and edited by the editorial board comprising student members and faculty coordinator.

This is a platform for the students to showcase their writing skills which will also create awareness among the students about the recent developments in the automotive industry sector and also the research and developments. This magazine also covers the events organized during this period and events, webinars, conferences participated by the students and faculty members. I am sure this will inspire many of the students to understand the importance of professional development. I congratulate the entire team for bringing out the newsletter successfully which will be a great tool of communication among the students.

Vision

To be a renowned Learning Centre in the field of Automobile Engineering contributing towards the development of society.

Mission

To attain the Vision, the department will
1. Develop students for successful careers in Industry, and Academia.
2. Provide the required learning environment and processes to become Socially responsible Engineering Professionals.
3. Establish Industry-Institute interaction
4. Inculcate the entrepreneurial mindset to start up a new business
NPTEL AWARENESS AND ITS BENEFITS:
This webinar was handled by Mr.R. Raffik, Assistant Professor, Mechatronics Engineering, KCT and it was conducted by the Automobile Department Association in collaboration with Department Associations of EEE, EIE, ECE, MEA and AEA. This session mainly focused on NPTEL courses, certificates, scholarships, etc., students participated and gained awareness about NPTEL courses.

AUTO-CONNECT PYTHON
This new education series comes under the banner of the Automobile department. The program commenced with 4-week python series handled by Mr Nithin TPN who is a programmer analyst trainee at cognizant technology solutions with ample experience in python programming and Machine learning. Nearly 30 plus students eagerly participated and the main highlight of the event is the trainer taught the concept down to the earth.
**Webinars**

**Visa processing and loan application**
This webinar was handled by experts from Edwise International. The session was about "Visa processing and loan application". Nearly 30 plus student participated and gained knowledge on various criteria for masters. From this webinar students learned how to process visa for various countries and also tips to get student funding.

**HIGHER STUDIES OPPORTUNITIES FOR AUTOMOBILE STUDENTS IN EUROPEAN COUNTRIES**
This webinar gave a brief description about the Study opportunities for automotive and motorsports engineering for the participants and a piece of detailed information about top universities in European countries like Sweden, France, Netherlands, Germany, and Austria. Also, they got to know about the opportunities that are spread around the European countries after graduation, especially for Automotive and motorsport engineering.

**RESUME BUILDING AND TIPS FOR CRACKING INTERVIEW**
This session was handled by Mr. Raja and Mr Kowshigan, they gave tips for cracking an interview, and explained what is the value of skill and the emphasis on it and various processes in the interview Shortlisting, aptitude, and technical Q&A, Group discussion, Technical interview, and HR interview. They also explained how important is to build a LinkedIn profile and how the profile should look like it etc. the basics of resume building were also explained.
YUGAM 2021

Being one of the biggest techno-cultural sports fests in South India since 2013, every year Yugam makes sure to bring excitement and enthusiasm along with knowledge, hope, and rich culture among students from all over India. With over 15,000 participants from 150+ colleges every year, Yugam enables a huge platform for the students to showcase their incredible talents. Bigger and Smarter.

Yugam Vibes was set this time with its New Virtual Avatar. Navigating through the unforeseen pandemic, humankind has learnt to cope and hope with better resilience than ever. Adapting to the change and perpetuating the yearly tradition of the Institution, the 9th edition of Yugam is hosted online. This time, with grandiose and poise.

YUGAM 2021

Potential partners for the YUGAM

- Ampere
- Haritha TechLogix
- L&T Technology Services
- Nissan motor
- SAEINDIA
- Haritha TechLogix
- Nissan
**Yugam**

**YUGAM 2021 Event**

**Mr Automobile:**

Mr Automobile was a technical event conducted in virtual mode through MS teams. This event with 4 phases of rounds conducted by Mr C. Naveen Kumar, Assistant professor and coordinated by Mr Sathya Narayanan, 3rd-year automobile our department. Auto Quiz, CADD Challenge, Group Discussion and a face-to-face interview are the four rounds conducted. By this event, participants can break the fear of facing interviews and Group Discussions. It also made them gain more technical knowledge and confidence, 25+ students participated.

**Accelerating E-Mobility Realization:**

Accelerating E-Mobility Realization was the event to enhance the knowledge of students in the field of electric vehicles by giving them an overview of all the domains and details present under the e-vehicle. The event was conducted by MR. R. Kishore, Assistant professor and coordinated by S. Harishbalaji of 3rd-year Automobile for 2days. The event splits into four sessions and each session was handled by different industrial persons in virtual mode via MS teams.
Honda Accords and Civics are usually the most stolen cars in the United States.

The British car company Jaguar was originally called the Swallow Sidecar Co. and, from 1934, were called SS Cars.
APPLE - Automobile's Peer to Peer Learning

APPLE is the Automobile’s Peer-to-Peer Learning platform which is conducted every Thursday by the Automobile department. Peer teaching is an instrumental strategy in which students who are advanced in specific domains, or those in later years, take on a limited instructional role, to teach or share their experience or knowledge in the specific field of work. The beauty of the series is that anyone can conduct this session and anyone can attend this session, it is organized by students for students. Before starting a session, generally, a survey is taken, regarding the needs of the students, based on their responses a session will be conducted every week on Thursday. The students of the Automobile department are working hard to make it reach throughout the college and trying to market the brand. Several sessions that were conducted are listed below. The motive of the sessions is to improve direct interaction between students and to gain knowledge according to their requirements, without any barrier between them.
INTRODUCTION TO AUTOMOBILE SUBSYSTEMS:

This is a 6-day webinar conducted by Automobile Department Association in collaboration with KCT Garage to provide both basic and deep knowledge on automotive subsystems such as suspension system, power train system, brake system, etc..., More than 40 students participated and came to know what are the subsystems that come under automobile and what it is dealing with it. The session was handled by,

1. Mr Narendran, Final year, Department of Automobile Engineering, KCT.
2. Mr Mohith, Third year, Department of Mechatronics Engineering, KCT.
3. Mr Pranav Kirthick, Third year, Department of Mechanical Engineering, KCT.
4. Mr Lal Kishen, Final year, Department of Mechanical Engineering, KCT.
5. Mr Harihan, Third year, Department of Mechatronics Engineering, KCT.
6. Mr Prawin Kumar & Mr Hari Nivethan, Final year, Department of Automobile Engineering, KCT.
DON’T BE AFRAID TO START:

This was an entrepreneurship session. The session handler Mr Jayaseelan – Founder – Young Ones., had given a lecture to 35+ students on how to become a successful entrepreneur in our life. This session was helpful for many young and eager entrepreneur minds in clearing their obstacles while pursuing a greater achievement.

CRACK YOUR INTERVIEW:

This session was conducted by Ms Selvi, Associate software Engineer, Robert Bosch Engineering & Business Solutions, Coimbatore., to give ideas, tips and tricks to improve one’s soft skills, personality, body language and intonation to attend an interview.
RESUME BUILDING:
This session was a part of APPLE series on how to build a professional resume. This session mainly concentrated on those who lack in building a resume. It was very helpful to many even to the new ones and the session was handled by Mr Julash T - Final Year - President - Department of Automobile Engineering - KCT - Sales Associative - Repos Energy India Pvt Ltd. Nearly 30 students participated and got an idea to build their resumes.

TRAVEL THROUGH SKETCHES:
This session was a part of the APPLE series on how to sketch automobiles and designing them. This session mainly concentrated on basic designing skills such as edges, light and shadow, spaces, relationships, etc... Mr Aadhil Rehaan Muhamed V, Third Year, Department of Automobile Engineering, KCT.
BASIC VEHICLE MAINTENANCE:

This session was to give some basic ideas for those who would love to maintain their vehicles in a perfectly conditioned way without the help of any other people or cleaning shop. This session was handled by Mr Aro Jerson Immanuel. A Youtuber (Aromotive), Third year, Department of Automobile Engineering, KCT, Coimbatore.

Industrial Connect

“Virtual Training on BMW Engine” was organised and conducted in coordination with the resource person Mr Kasiviswanathan Panchatsharam - Technical Trainer - BMW Group Training Centre.

-Mr. S. Sivakumar

Industrial collaboration for research and student internship a visit was made to “Ashok Leyland Corporate Office, TATA AUTO COMP SYSTEMS Limited, TEXSPIN Bearings, and Automotive Systems, Hitachi Automotive Systems Ltd., Mando Automotive PVT Ltd., Hwashin Automotive India PVT Ltd, Iljia Automotive PVT Ltd, TAFE, Caterpillar India PVT Ltd”

-Mr. S. Satish, Mr S. Sivakumar
You want your cooling system to be ready for summer. Idling for long periods in hot weather is tough on your cooling system, but a vehicle with a healthy system will be able to handle it without overheating. Check that your coolant levels are topped up.

The best way to tell if your air conditioner has a problem is if it can’t generate or maintain air temperatures that are 10 degrees Celsius below the ambient outside air temperature. The most common cause of a malfunctioning air conditioning unit is a low level of refrigerant.
**Publications & Achievements**

**Paper Published by students**


- vishnuvel, kajendran

“Design of ECU for Automatic Headlight Beam Control during City Driving”, International Journal of Vehicle Structures & Systems, ISSN: 0975-3060 (Print), 0975-3540 (Online)

- V. Annamalai, B. Dineshvikram and T. Julash


- J. Niveth Kanna, G.V. Harikrishnan, S. Prabu


- M. Hari Nivethan, A. Ajay Bharathi, S. Prawin Khumar


- S. Narendran, Vishal Sampath, N.P. Akarsh


- S. Subash, S. Varun, I. Vishal


volume:02/Issue:06/June-2020,e-ISSN:2582-5208.

- Andrew Lydwin A, Kamleshvara VR, Adhith R
“Effect of destruction of trees on highway roads and its impact on climate change at Coimbatore” - A case study, AICTE International level paper.

- Dr. G. Thenmozhi


- Dr. S. Mohankumar

“Grid-Based Blind Spot Analysis for Indian Driver Anthropometry”, 18th International Conference on Humanizing Work and Work Environment organised by Indian Society of Ergonomics.

- G. Rajkumar

“Studies on the medicinal herbs to cure Polycystic Ovarian Syndrome (PCOS)”, International ICRTFPES’20th conference organised by SRM Institute of Science and Technology, Kattankulathur.

- Dr. G. Thenmozhi
INDIAN CAR OF THE YEAR

GREEN CAR OF THE YEAR

PREMIUM CAR OF THE YEAR

BEST CAR OF THE YEAR
Review papers and Journals

Dr G. Thenmozhi

“An Intensive online survey of climate change due to development of roads and bridges on the highway roads and its impact on climate change at Coimbatore” – A case study - WoS & Scopus

“Agri Image Processing using Uml Model, Bioscience Biotechnology Research Communications” - WoS


Dr J D Andrew Pon Abraham

“The Heat Exchangers Tubes Mineral Type Effect on The Refrigeration System Performance Using Different Lengths of The Capillary Tube” – Scopus

“Experimental assessments on R430A as an environment-friendly replacement to R134a in vehicle air conditioners” - SCI

Mr A. Prabhakaran

Review papers and Journals

Dr S. Mohankumar

“Technological Advancement of Solar Thermal System Desalination Process” - Scopus and Wos

“Experimental Investigation on Effect of LHR in Diesel Engine Fuelled with Waste Cooking Oil Biodiesel” – A National level event was done in collaboration with Jenoris Muthiya Solomon, Department of Automobile Engineering, Hindustan Institute of Technology

Mr B. Arun

“Comfort analysis of Crane Hoistman based on nonlinear Bio-dynamics coupled with crane - Rail System Model” – Scopus and International journal

Dr S. John Alexis

**Guest Lectures Delivered and organized**

"Evaluator of Toycathon 2021 AICTE" - The guest lecture was delivered by Mr. S. Sivakumar

"Doctoral Committee meeting" - The guest lecture was delivered for 2 days by Dr. S. Mohankumar

"Personal Statement Writing: SoP, SoL, Motivation Letter" – Career and self-development program was delivered by S. Sivakumar

"Self-Development Training" – A program was organized for school children, KCT Business School students by S. Sivakumar

**Awareness on preparing Government Competitive Exams**

A webinar on Awareness of preparing Government Competitive Exams which was delivered by Mr. V. Arunachalam, RTO Inspector, Thiruvanmiyur, Chennai was organised in collaboration with Mechanical Department Association and conducted. More than 60 students participated and gained knowledge and awareness about Government exams.

-Mr. S. Sivakumar
MoU Signed

“NIELIT”, Calicut – A national-level institution, for 2 years

“Kaizenat Technologies Pvt. Ltd., Bangalore” – A national-level institution for 3 years

Patent Done/Applied

“PORTABLE MILLET POPPING MACHINE AND METHOD THEORY”, which was done by Dr G. Thenmozhi and got approval for the patent.

“Faya SHEBEI”, which was applied by Mr Prabhakaran
Rolls Royce made the world most expensive car named **Rolls Royce Boat Tail**

TATA motors made the world cheapest car named **TATA Nano**

**DID YOU KNOW?**
Student participation

“FORMULA BHARAT” – A National Event was conducted by Curiosum Tech Private Limited and it was attended by 10 students of the 2017 Batch and they secured Overall 29th Rank, 12th in Design Contest.

Placements & Internships

This pandemic never stopped our students from achieving their dream placements. Our department students

<table>
<thead>
<tr>
<th>NAME</th>
<th>COMPANY PLACED</th>
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<tbody>
<tr>
<td>Julash T</td>
<td>REPOS ENERGY INDIA PVT. LTD.</td>
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<td>Hari Nivethan M</td>
<td>COGNIZANT</td>
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<td>Dineshvikram B</td>
<td>COGNIZANT, TATA CONSULTANCY SERVICES, INFOSYS</td>
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<td>Nithish M</td>
<td>COGNIZANT, TATA CONSULTANCY SERVICES</td>
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<td>Kathirvel Shunmugam B</td>
<td>COGNIZANT, INFOSYS</td>
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<tr>
<td>Narendran S</td>
<td>COGNIZANT</td>
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<td>Nithish N</td>
<td>TATA CONSULTANCY SERVICES</td>
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<tr>
<td>Kajendran M</td>
<td>TATA CONSULTANCY SERVICES</td>
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<tr>
<td>Annamalai V</td>
<td>INFOSYS, MALLOW TECHNOLOGIES PVT. LTD.</td>
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<tr>
<td>Subash S</td>
<td>INFOSYS</td>
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<tr>
<td>Amal Dhandapani</td>
<td>MY CAPTAIN, CARESOFT GLOBAL</td>
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<td>Akash N P</td>
<td>SURYABALA FORD</td>
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<td>Vishal I</td>
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<td>DARSHAN KUMAR K</td>
<td>CARESOFT GLOBAL</td>
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Internships done by students

The internship at “Ampere Vehicles Pvt Ltd” was attended by Annamalai. V, Prawin Khumar. S, Dharineesh. V M, Abinandhan Palanisamy K of 2017 batch for 2 months

Inplant Training at “Ramani Mahindra” was attended by Agatheesh Senthil. Y of 2019 batch for a period of 1 week

Inplant Training at “TATA Motors” was attended by Prethish Haran. M, Saravanan. P of 2019 batch for a period of 1 week

The internship at “Innova CNC Applications” was attended by Amrith Gowtham. A Sanjay. S of 2018 batch for 1 week

Internship at “Ambal Auto – Maruthi Suzuki Arena” was completed by Pranesh Nimalan. p of 2018 batch for 1 week


Internship at “Krishna Motors – Royal Enfield” was completed by Bharath Harish.A. R, Ramanathan. An of 2018 batch for 10 days

Internship at “Manchester Honda – Ramani Automobile Pvt Ltd” was completed by Pranav Kumar. C, Abhyuday Rajan of 2018 batch for 1 month
Internships done by students

Internship at “Sakthi Auto Ancillary Pvt Ltd” was completed by Hari Prasath .M of 2018 batch for 10 days

Internship at “Shenbaka Cars Pvt Ltd – Maruthi Suzuki Arena” was completed by Siva. S of 2018 batch for 1 week

Internship at “Suryabala Motors and Wheels Pvt Ltd” was completed by Tamilarasu.P. A, Mukilan. S, Aravind. K. R of 2018 batch for 3 weeks

The internship at “The Tag Content” was completed by Harishbalaji. S of 2018 batch for 45 days

The internship at “Wipro Infrastructure Engineering” was completed by Yogesh. B of 2017 batch for 2 months

Flashpoint is a review paper or journal, started and completely handled by students, where we have started publishing about the complete overview of cars and giving feedback about it, overall we review automobile vehicles. Still, now we have published six articles, reviewing the latest vehicles. The Automobile Vehicle Review Paper is all about students reviewing and sharing their opinions about the newly launched automobiles, which is released every month.
"You have to sacrifice something to gain much more". He says," If one has something on their mind they should say it to someone. Also always hold on to your passions. You'll encounter people and events that will force you to give up but never do".

**Narendran**

“It was KCT that changed my character and made me into who I am,” He says “I never realised the benefit of all this till my job interview. They grilled me for about an hour on just this and I did land the job. That’s why I stress the juniors to up their game”

**Ajay Shankar**

“A college is a place where you can experiment a lot of things, and people don’t give a shit even when you go wrong. So, don’t stay blank, have a goal work on it day by day consistently. Have fun, be crazy and also have a dream, walk towards it.”, His message to juniors.
Vishnu

“An exhilarating ride juxtaposed with friends, fun and a lot of learnings describes my college life. No regrets, but maybe the pandemic could have been merciful during our last year” says Vishnu

Vishal

“If you learn to manage difficulties you can succeed. Make use of the opportunities, that is enough to reach your goal”, advises Mr. Vishal

Muhsinul Islam

He asks the question “Why not?” to stay motivated. He also believes the time he spends alone with his thoughts constantly motivates him to become a better version of himself
Dinesh Vikram

“It’s okay to not have a plan but when opportunities come your way, just grab it. Failure is part of success and never lose hope, keep on moving”, says Mr. Dinesh.

Prawin

He says, "Learning is an unending thing and passion is something that will be unfuelled if you are on the right platform".

Annamalai

“Our college provides various wonderful opportunities. Grab them whenever you can” is his strong message to his juniors. The thought of leaving his mark in KCT motivated him.
Dharshan

'Play smartly, learn, explore every opportunity and yes take one moment at a time because he believes that both the knowledge and fun that are imbibed from college life can never be got back again. So, don't miss them.'
COVID-19: MG Motor India Conducts Free Vaccination Drive for Its Employees

MG Motor India has partnered with regional authorities at both the facilities in Gurugram and Halol as well as regional offices to carry out the free vaccination drive. MG Motor India today commenced the COVID-19 vaccination drive for all its employees. The Chinese-owned British carmaker also confirmed that the vaccination drive is also extended to all direct contractual employees. Additionally, the carmaker also partnered with regional authorities at both the facilities in Gurugram and Halol as well as regional offices to carry out the free vaccination drive. The vaccination offered by the company is completely voluntary. Rajeev Chaba, President & MD, MG Motor India took to Twitter confirming the development of vaccination at the plants.
Kawasaki Patents Reveal Auto-Clutch System

New patents from Kawasaki reveal the Japanese giant working on a quickshifter combined with an automated clutch. Kawasaki seems to be working on a latest-generation quick-shifter, which will use an automated clutch for easy gearshifts. The idea is to make quick shifters not just the ideal accessory for sportbikes but to make them usable even for regular road bikes. The basic standard is quite simple and works only on upshifts. It works by sensing the movement of the gear lever and briefly cuts the ignition to reduce the drive for an instant, allowing the next gear ratio to slot into place without using the clutch. Ride-by-wire throttle technology offers the option of up/down, or bi-directional quick shifters on higher-end bikes, featuring auto-blipping to match engine revs to road speed on clutchless downshifts.
Auto stocks in India post noteworthy gains in FY2021

It is the dawn of a brand-new financial year for India. Automotive sales-wise, it has not been a particularly noteworthy fiscal for most players. From passenger vehicles to commercial operators, none of the segments is completely out of the woods. However, in terms of stock market performance, it’s been a rather smooth ride for the auto stocks this financial year. The BSE Auto Index closed trade on March 31, 2021, at 22,252.21, up over 107 percent from April 1, 2020.

- Tata Motors stock value increased over 300 percent in FY2021
- Maruti Suzuki stock fell 8 percent in the last quarter but gained nearly 60 percent in the fiscal
- Eicher (Royal Enfield), Bajaj, Hero and TVS stock also post significant gains
"The will to win, the desire to succeed, the urge to reach your full potential... these are the keys that will unlock the door to personal excellence."

- Confucius

Thanks to all Faculties and DA Team who Contributed for this wonderful Outcome.

Special Thanks
Prof. Sivakumar & Prof. Naveenkumar Chandramohan

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