



# IMECHATRONICS - SEWIND

#### WHAT'S INSIDE

MEMORANDUM OF UNDERSTANDING (MOU

WEBINARS & EVENTS

PANEL DISCUSSIONS

**FACULTY & STUDENT ACHIEVEMENTS** 

UNITY IS STRENGTH
WHEN THERE IS TEAMWORK AND
COLLABORATION, WONDERFUL THINGS CAN
BE ACHIEVED

FIRST ISSUE 2021

#### ROBOTICS & AUTOMATION CLUB

Student - Friendly technical platform to Explore skills and Play with Crcuits

#### READ

#### DROGO

Drone-based Logistics System

#### **ADTB**

A Fully Automated Patient

Monitoring Robot

June - December 2020

#### MCE MEDIA

IGTV series
Multi Dimensional Quiz
MCE on Field

#### NOTE TO READERS



We are delighted to promulgate the Newsletter of the Department of Mechatronics Engineering. It is our privilege to share this newsletter with all because you are one of our impetuous factors and the one who extends constant support.

Within few weeks after declaring lockdown, we have put in place our curriculum and have continued to adapt it to our student's needs and capabilities. We have abide by all

the orders and procedures necessary for the efficient and effective operation of the college. From a staff's perspective, we are establishing a sustainable professional learning community to incessantly look for improvements and innovative teaching strategies to support students reach their full potential.

This magazine covers the events, webinars and conferences organized and participated by the students and faculty members. We are sure this will inspire many of our students to reach greater heights in professional development. I congratulate the entire team for bringing out the newsletter successfully which will be a great tool of communication among the students.

Please enjoy this newsletter and provide your valuable feedback.

With regards,



Dr. Saravana Mohan M, HOD, Mechatronics Engineering





#### **MECHATRONICS ENGINEERING**

**ELECTRONICS** 

The Department of Mechatronics Engineering was established in the year 1999, offering B.E. in Mechatronics Engineering. The department has well-developed laboratory infrastructure that bridges the gap between industry and academia. It also provides consultancy services to the industries. The department regularly invites industry persons, academic and research experts to interact with the faculties and students to update them with the current knowledge and also to make them understand the needs of various Industries. To prepare industry-ready engineers of the future, the department has the right blend of faculty members having expertise in Mechanical, Electronics, and Mechatronics engineering.

MATHEMATICS

"Science is about knowing, engineering is about doing."

> - Henry Petroski

#### MISSION

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

#### 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.









#### **MOUs**

#### CURTIN UNIVERSITY

The Department of Mechatronics Engineering signed the MoU with Curtin University (Australia), Dubai Campus for a period of 5 years.





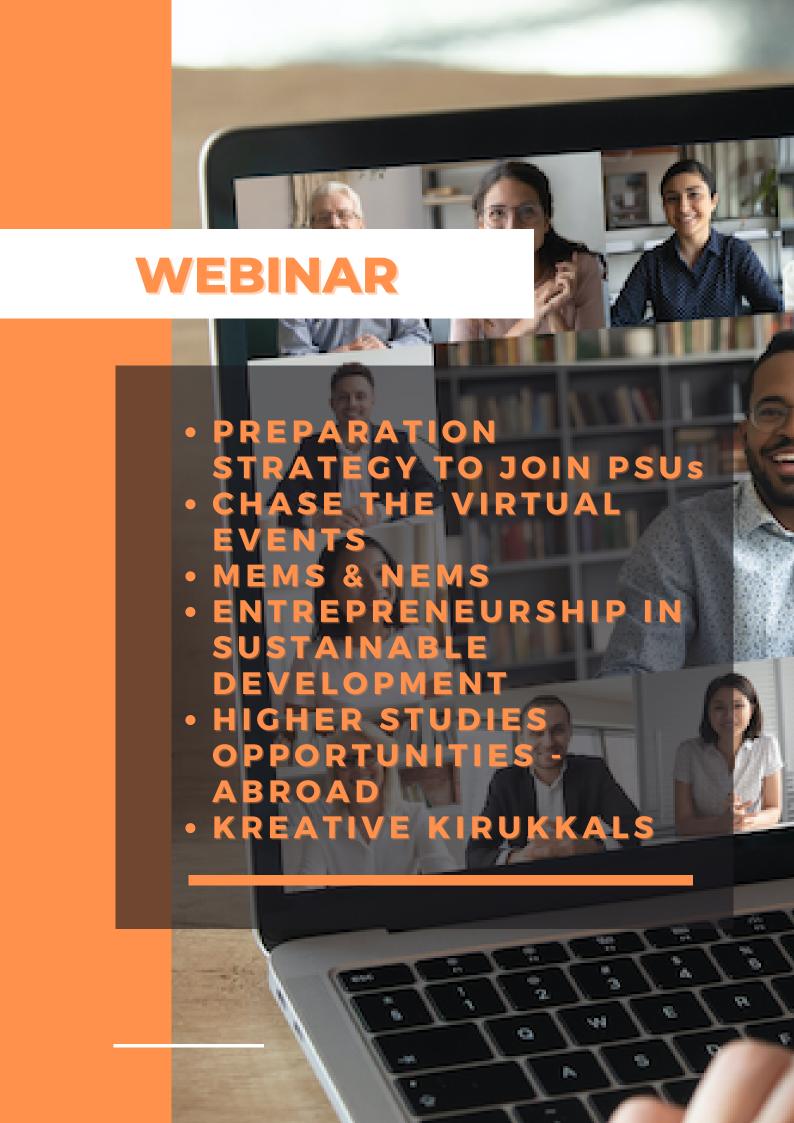
#### **UNITEK HYDRAULICS**

The Kumaraguru College of Technology - Department of Mechatronics, Aeronautical, & Mechanical Engineering signed MoU with UNITEK Hydraulics, Coimbatore for a period of 3 years

#### VISTA ENGG. SOLUTIONS

The Department of Mechatronics Engineering signed the MoU with VISTA Engineering Solutions Pvt Ltd. (VISTA Group of Companies) in October 2020.





# PREPARATION STRATEGY TO SECURE AIR DDR TO JOIN PSUs

6 AUG 2020

The Department of Mechatronics Engineering organized a webinar on "Preparation Strategy to Secure All India Ranks & Double Digit Ranks to join PSUs". The session was handled by the chief guest Mr.R. Vivekanandan, GATE educator, UNACADEMY(PAN INDIA), who has 8 years of GATE teaching experience, Ex- IOBian, Cracked GATE, AFCAT, IBPS)

#### LIST OF HAPPENINGS IN THE EVENT:

- The chief guest gave a detailed explanation about PSU's.
- He shared all the preparation strategies.
- He gave insights of GATE vs NON GATE PSUs
- He taught the nooks and crannies for effective preparation in the pandemic situation
- He explained about the 6 months strategy to score 75+ marks in the exam.

# CHASE THE VIRTUAL EVENTS

17 OCT 2020

The Department of Mechatronics Engineering organized "Chase the Virtual Events" session to guide the students to participate and win in National and International level events. Two Mechatronics alumni handled this session and shared their experience.

#### LIST OF HAPPENINGS IN THE EVENT:

- The session began with acknowledging the benefits of attending events.
- The participants who had already attended events explained the procedure and techniques to win the events.
- Questions posted by participants during the session and the questions collected from participants during registration were answered.
- The details of upcoming national & international events were given to the students.





#### **MEMS & NEMS**

MICRO-ELECTROMECHANICAL SYSTEM & NANO- ELECTROMECHANICAL SYSTEM

19 OCT 2020

#### **CHIEF GUEST**

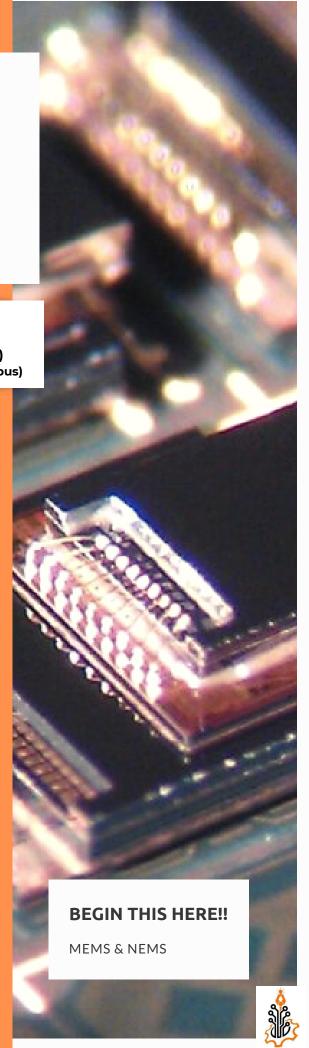
Dr.G. Velmathi, (Ph.D. - IISc, Bangalore) Professor, VIT(Chennai Campus)

The Department of Mechatronics Engineering organized a webinar on "Micro-Electro-Mechanical Systems & Nano- Electro-Mechanical Systems". The session was handled by the chief guest Dr.G.Velmathi, (Ph.D. - IISc, Bangalore), Prof. in VIT (Chennai Campus).

#### LIST OF HAPPENINGS IN THE EVENT:

- She gave a detailed view of NEMS & NEMS and its applications.
- Questions related to this topic were posted by the participants in chat and Facebook live and some of the questions collected during registration from other participants via google form were also answered by the chief guest.
- The questions related to Robotics, Industrial Automation, etc. were also discussed as a part of the session.







12 NOV 2020

The Department of Mechatronics Engineering organized a webinar on "Higher Studies Opportunities - Abroad" on 12th November 2020. This session was conducted to guide and clear the doubts of the students, who are interested in doing higher studies in abroad.



CHIEF GUEST Mr. Santhosh, Director, IMS.

#### LIST OF HAPPENINGS IN THE EVENT:

- The session began with acknowledging the benefits of pursuing higher studies abroad and briefed the life history of successful person, Mr. Santhosh, Director, IMS who had done his higher studies in other countries.
- The reasons to do MBA or MIM were explained in an efficient manner.
- The list of top universities in each country were given.
- The information about various scholarships and financial aids were given.







7 NOV 2020

The Department of Mechatronics Engineering organised a webinar on "Social Entrepreneurship in Sustainable Development" on 7th November 2020. This webinar was conducted to guide the innovative minds to step their feet in Social Entrepreneurship.



CHIEF GUEST

Ms. Nupur Agarwal,
Founder of EVOLVE

#### LIST OF HAPPENINGS IN THE EVENT:

- The webinar began with the introduction of Ms. Nupur Agarwal, who is the Young Social Entrepreneur, founder of EVOLVE Foundation, KIWI Kisan Window and the Youth Ambassador of Dehradun.
- There happened the Interview Session between the moderator and the Chief
- Questions collected from the participants during the registration and the questions posted in the chat box were answered by Ms. Nupur Agarwal.









#### KREATIVE KIRUKKALS

26 DEC 2020



The Department of Mechatronics Engineering and Varnam Club organized a webinar "Kreative Kirukkals" on 26th December 2020.



CHIEF GUEST

Mr.Rajesh,
Chief Sub-Editor,
The HINDU, Madurai.

#### LIST OF HAPPENINGS IN THE EVENT:

- The discussion began with the introduction of the chief guest Mr.Rajesh and then the session was handed over to the speaker for demonstration.
- Several paintings of the speaker related to concept illustration with innovative thinking, realism painting, caricature and abstract painting were explained by him and the participants clarified their doubts regarding those paintings
- Live demonstrations of painting a bubble and abstract painting were also made by the speaker









#### **PANEL DISCUSSIONS**

# Emerging Trends and Career Guidance

#### In this Issue

#### EMERGING TRENDS AND CAREER GUIDANCE

PLACEMENT AND SKILL DEVELOPMENT

The Department of Mechatronics organized an online event, "Panel Discussion" on Emerging Trends and Career Guidance for Mechatronics on 27th August 2020. The alumni conveyed the variety of career opportunities available after graduating from mechatronics.



Mr. Manodhayan K Embedded Software Developer,Mobiveli



Mr.Premsanth N Maintenance Engineer
Wendt India Limited
(Murugappa Group)



Mr. Kalaiselvan Thangaraj r Former Incubation Associate, Product Management Forge

#### CHALLENGES FACED AS A CORE ENGINEER

#### LIST OF HAPPENINGS IN THE SESSION:

- Industrial expectations on a fresher in the embedded system domain and the daily life of an embedded software developer were discussed.
- College to corporate transformation and realtime learnings were detailed to the students.
- They shared their experience with the students in various fields.
- They claimed the students to choose the desired career and to shine high on that field.





# Placement And Skill Development

4TH OCTOBER 2020.

The objective of this discussion was to give guidance to the students and the skills that are to be developed to get placed in well-reputed companies. The panelists clearly explained the criteria and procedure of attending interviews.



Mr. Manikandan Software Engineer, INFOSYS



Mr.Hari Prasad
Team Leader
Maintenance
SCHINDLER INDIA
PVT.LTD.



Mr. Raaj Kumar Gopalakrishnan Application Engineer, B&R INDUSTRIAL AUTOMATION PVT. LTD.

- The alumni working in different sectors were called up for the panel discussion.
- The questions related to software jobs, Industrial automation companies and jobs, core engineering jobs, freelancing, entrepreneurship, etc. were also discussed as a part of the session.
- The Important skills required for the freshers such as aptitude, communication skills, program skills, etc. were discussed.
- Questions related to placement were posted by the participants in chat and some questions collected during registration via google form were also answered by the panelists.



# Mr. PruthivKanagaraj Software EngineerFirmware, Identiv Inc.

# Challenges Faced as a Core Engineer

12th November 2020.

The objective of this discussion was to give a detailed explanation of opportunities and the skills required to place in Core companies. They resolved the career doubts in the IT and Core sectors They also shared their experience deliberately in such a manner that students determine the career path..



Mr. Mohan D
Embedded
Developer,
Spark Drives and
Automation.



Mr. Nagarjun M Simulation Engineer, DIFACTO Robotics and Automation.



Mr. Dineshkumar P
Embedded & IOT
Developer,
Katomaran Technology &
Business Solutions.

- The discussion began with the introduction of Mechatronics Alumni, about their college days in KCT, their career, and job placements.
- The questions related to Robotics, Industrial Automation, Core, BOSCH, placements, required skills, etc... were also discussed as a part of the session.
- Panelists have suggested their thoughts on how to become a Core engineer, the required things to learn, and the works associated in Core sectors.
- The panelist claimed that the Concepts of Engineering Subjects won't be necessary unless or until students are provided with the circumstances of answering a definite problem statement.

# 3D CAD MODELLING CHALLENGE

18 SEP 2020



#### "Engineering is about using science to find creative, practical solutions".

Department of Mechatronics in association with Robotics and Automation Club of Kumaraguru Institutions organized a design event "Virtual 3D CAD Modelling Challenge" on 19th September 2020 to remark "Engineers day".

It had 2 rounds. In round 1, the participants were assigned to create and submit 3D CAD model from 2D drawing to qualify for round 2 on or before **September 18, 2020**.

In round 2, A challenging problem statement was given to the participants and asked to design a product through google meet in screen sharing mode for the problem statement. Participants with enthusiastic energy, designed their own models out of which the best one has been selected by panel members and awarded with prizes.

#### **EVENTS**

3D CAD MODELLING CHALLENGE

TINKER CAD CIRCUITS

**LET'S CRACK IT - QUIZ** 

LET'S KEEP THE FUN
LEARNING LIVELY AND
EXPLORE MORE.





#### **TINKER CAD CIRCUITS**

By Mr Ishthiaq Hussain

17 NOV 2020

In the first step of learning and exploring Mr. Ishthiaq Hussain, a resource person from the final year, Mechatronics, shares his insights and introduces Tinkercad, an online platform with a collection of software tools for simulation. There were 2 phases to deal with in this peer-learning.

#### 1. Training:

Introduction to Tinkercad (How to use?)

#### 2. Competition:

Screening round and the final round. It happened on 17th and 21st Nov 2020 between 5.30 pm to 6.30 pm via MS teams and Google Meet. Participants were taught, examined, scrutinized and the best output for the problem statement was selected and rewarded. Over these, the interest and the different ideas from the participants were encouraging and urging to bring up even more ideas.

#### LET'S CRACK IT -QUIZ

19 SEP 2020

For the Department of Mechanical & Mechatronics Students, the following two quiz topics were conducted for 30 minutes through UNACADEMY LEARNERS APP.

- 1. Quiz on basic Mechanical topics (15 questions MCQ Type)
- 2. Quiz on Numerical Ability (15 questions MCQ Type)

Prizes worth of Rs. 3000 were awarded to the Winner and Runners up.



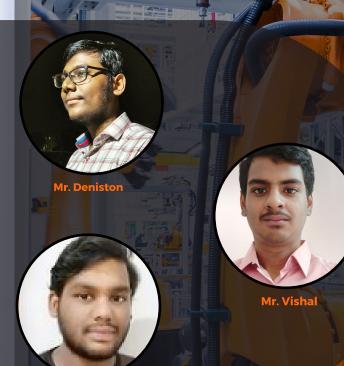


#### **FORGE**

Your Innovation & Growth Partner



FORGE IS BEING A PLACE WHERE **WE ARE** APPLYING OUR KNOWLEDGE ON HANDS-ON **EXPERIENCES WE ARE** DEVELOPING. **UPGRADING OURSELVES IN** THE TECHNICAL WORLD, AND **PUSHING OURSELVES TO** BE AN



Practical knowledge is an invincible knowledge of all. KCT provides a platform-Forge(Protosem) where we can equip ourselves in every possible way. Here is the list of students of the Protosem 2020 batch, who have taken up the Protosem from our department. They were involved in the projects of the Medical field and Labour reduction.



INNOVATION

**ENGINEER** 



# ROBOTICS AND AUTOMATION CLUB



#### "We're fascinated with robots because they are reflections of ourselves"

#### Ken Goldberg

Robotics and Automation Club is a club initiated and established by the Department Association of Mechatronics Engineering and like-minded people to help students keep up with the growing pace of the technology industry especially in the field of Robotics and Automation.

On the **25th of January 2018,** Robotics and Automation Club's inauguration took place at around 10:30 am. The inauguration was graced by Dr. Santhakumar, Assistant professor from IIT Indore.

It is a student-friendly technical platform to explore robust skills and play with circuits. Bringing a machine-generated world seemed to have come one step closer to us. Hanging out with like-minded peers is always a great way to build camaraderie.

#### COLLABORATIONS

- TECHNICAL DRILLING SERIES SERIES
- EVENTS & WEBINARS
- PROJECTS







# TECHNICAL DRILLING SERIES

Train - Practice - Execute



#### **EXPERIENCING A SEMESTER**

Technical Drilling Series is a hands-on training program conducted each month with different topics. This program will be a stepping stone and give clear ideas to many students who are in dilemma about their career.

As this is a mentoring system, it will connect a bridge between students to learn and work together. This program will be a platform for students who want to learn apart from curriculum.

#### OPENCY - FIRST SERIES (DECEMBER)

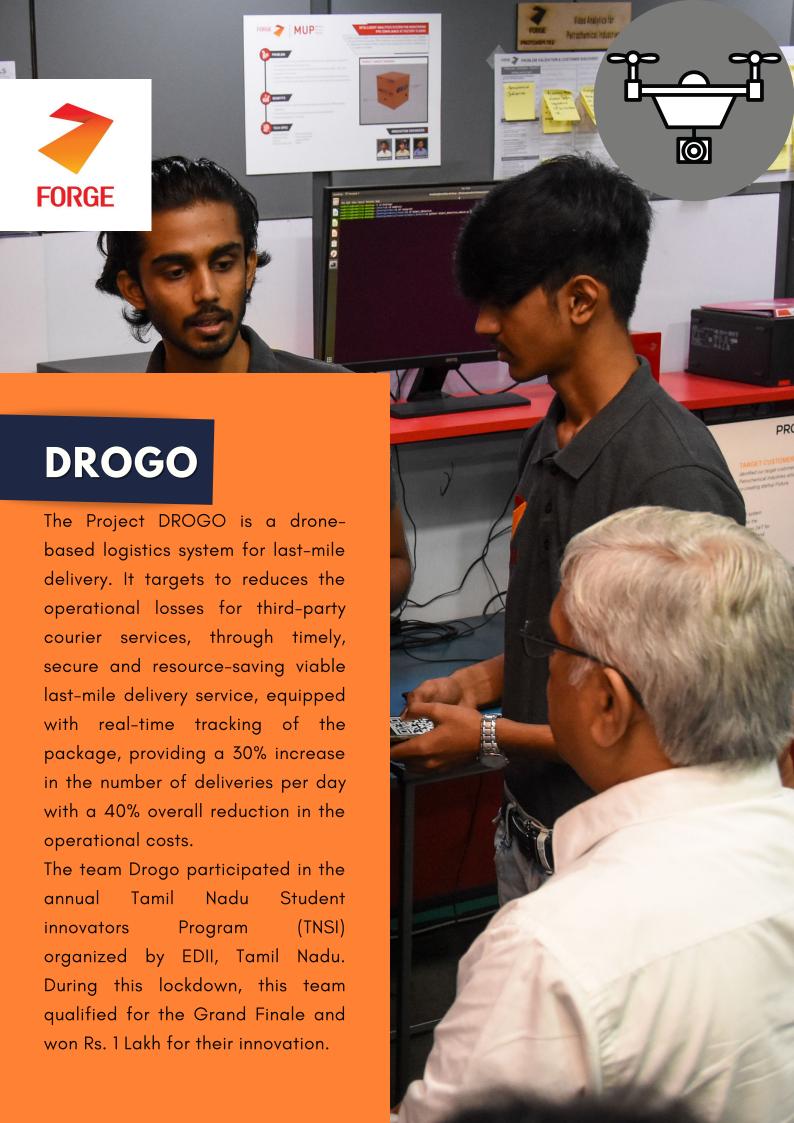


OpenCV is the first month topic for the Technical Drilling Series. It was handled by Mr.Javid Hussain in the month of December. It had achieved nearly 40 participants. Tasks were given to them at the weekend. They did those tasks with full-fledged involvement and posted on their LinkedIn profiles tagging the MCE-KCT page. One month training program was successfully launched and completed.









# PUBLICATIONS AND ACHIEVEMENTS

#### PAPERS PUBLISHED BY MECHATRONICS STUDENTS:

1. "Review on Industry 4.0 and its Elements", was published in IJRET on 20th July, 2020

\_Rakesh D , Prakash Ganesan G , Akshath S

2. "Conceptual Drone Design For Delivering Goods ", was published in IJRET on 26 th July, 2020.

\_Rakesh D , Feonsa Antonitta B

3. "Comparison Review on LiDAR vs Camera in Autonomous Vehicle "published in IRJET on August 28, 2020

\_Mugunthan N

4. "RFID and IR Sensor as an Integrated Security System ", published on September 25, 2020 in IRJET.

\_Sridhar S K, Sounder Raj S, Pradeep M

5. "Evolution of Air Quality Measuring Techniques", was published on 3 rd October, 2020.

\_ Jayananden M , Mohan A , Prakash Ganesan G

6. "Review on Building a Cost Efficient Pen Plotter" published in IJRET on October 7,2020.

\_ Jayananden M

- 7. "Automatic fertilizer sprayer "published on October 9, 2020, in IJRET \_Pradeep S , Sri Suvetha C S , Sneha R , Obli Karthi
- 8. "Automatic Control of Home Applicances " in IRJET was published on October 20 , 2020

\_ Hariharan E , Priyadarshini R , Arunkumar

9. " Agricultural weeds Extinguisher with the use of ML ", published in IJRET on October 21, 2020.

\_Hemanath , Hariharan R , Aravindhan





KCT students bagged the first place at the India International Science Festival 2020, organized by the Ministry of Science and Technology, Ministry of Earth Sciences and Ministry of Health and Family Welfare. Government of India in collaboration with Vijnana Bharati (VIBHA) by CSIR for designing A Doctor To Be (ADTB), a fully automated patient monitoring robot.

Now this dynamic team has started a persuasive Instagram account @kiox.inc with tag line "Let's make in India" for healthcare! This event brought number of appreciation and recognition to the fellow students starting from newspaper articles to many more!!!





# TEACHER'S DAY CELEBRATION

" THE ART OF TEACHING IS THE ART OF ASSISTING DISCOVERY "

Teachers are the supporting pillars of every student. A special day to celebrate their love, sacrifice, mentorship, and efforts, is Teacher's day. In this pandemic, we celebrated virtually on **September 05**, **2020**. We incorporated many fun activities to add sugar to this event. Teacher's Day celebration was one of the beautiful events conducted by DA members which made the teachers feel proud. This virtual celebration fully overflowed by pre-pandemic memory.



Dr. M SARAVANAMOHAN
ENGAL AASAAN



Dr. B SABITHA
AWARD OF MERIT
TEACHING



Mr. R RAFFIK

AWARD OF MERIT

STUDENT DEVELOPMENT



#### **JOURNAL PUBLISHED & REVIEWED**

#### **JOURNALS PUBLISHED**



#### **Dr.R.VENKATESAN**

"Metal flow analysis in Streamlined Extrusion dies using DEFORM" published in IJLTET in July 2020.

An extensive data set related to micro-drilling of Al-SiC-B4C hybrid composite through µECM using GRA coupled PCA" was indexed in Scopus in November 2020.

"Investigation and optimization parameters of wire cut EDM in the machining of Titanium alloy by Taguchi" in "International Virtual Conference on Applied Science, Technology, Management, and Language Studies" (Astmls-2020) organized by Sona College of Technology, Salem in December 2020.





- "Robust Image
  Watermarking
  using Fractional
  Krawtchouk
  Transform with
  Optimization"
  published in the
  Journal of
  Ambient
  Intelligence and
  Humanized
  Computing in
  July 2020.
- "Hyperspectral Image Compression using Hybrid Transform with Embedded Zero-Tree Wavelet and Set Partitioning in Hierarchical Tree" published in International Journal of Scientific Technology Research in July 2020.

#### **PAPERS REVIEWED**

- "On Learning-Based Compressed Sensing for High-Resolution Image Reconstruction" of IET Image Processing in July 2020
- "A Low-light Image Enhancement Method Based on Bright Channel Prior and Maximum Colour Channel" of IET Image Processing in august 2020.
- "Colour and Contrast Enhancement Algorithm for High Visibility of Underwater Images" of IET Image Processing in august 2020.
- "Deep Medical Image Fusion" of IET Image Processing in October 2020.
- "SE-RWNN: A Synergistic Evolution and Randomly Wired Neural Networkbased Model for Adaptive Underwater Image Enhancement" of IET Image Processing in October 2020.
- "Performance Analysis of Deep Learning-based Classification Techniques in Low-Altitude Aerial Images" of IET Image Processing in august 2020.
- "Face super-resolution via hierarchical multi-scale residual fusion network" of IET Electronics Letters on August 2020
- "Automatic Identification Management of Goods in Warehouse Logistics Based on RFID Technology" of IET Wireless Sensor Systems in July 2020





"Design and Control of a Novel Cable-Driven Rehabilitation Robot" of ROBOTICA in November 2020.

#### **FACULTY AS RESOURCE PERSONS**



#### **Dr.R.VENKATESAN**

Acted as a subject expert in the 6th Board of Studies meeting of the Mechatronics Engineering department at Sona College of Technology, Salem in December 2020.

#### Mr. A.RAMKUMAR

Handled a session on "Industrial Robotics" in AICTE –STTP on "Recent Advances in Industrial Automation and Robotics" organized by Kumaraguru College of Technology in November 2020.

#### **AWARDS RECEIVED BY FACULTY**

Mr. T. SURESH

Mr. T. Suresh has received a Gold medal in the NPTEL course on "Product Design & Development" conducted by NPTEL - IIT Madras in December 2020





Mr. R. RAFFIK

Mr. R. Raffik has received a Gold medal in the NPTEL course on "Automation in Manufacturing" conducted by NPTEL - IIT Madras in December 2020.

He has received a Certificate of appreciation from TEXAS instruments and AICTE for fostering the ecosystem bridging government, Academia, and industry

#### NPTEL COURSE COMPLETION

#### **AUTOMATION IN MANUFACTURING COURSE, NPTEL**

Mr. Suresh T, Mr. Raffik R (Faculties)

PRODUCT DESIGN AND DEVELOPMENT COURSE, NPTEL

Mr. Suresh T (Faculty)

Mr. Venkatesh M, Mr. Hariharan E, Mr. Shikandar Thaanish (Students)

**ROCKET PROPULSION COURSE, NPTEL** 

Mr. Rakesh D (Student)

BASICS OF FINITE ELEMENT ANALYSIS COURSE, NPTEL

Mr. Shikandar Thaanish, Mr. Hariharan E, Mr. Venkatesh M (Students)



#### **ONLINE COURSES**

#### 2017 - 2021 Batch

- Control of Mobile Robots
- Programming for Everybody (Getting started with Python)
- Introduction to CAD,
   CAM, and practical CNC
   Machine

#### 2018 - 2022 Batch

- Biohacking
- Brain's health
- Science of Exercise
- Effective problem solving and decision making.

#### 2019 - 2023 Batch

- Crash coure on Python
- Science of Exercise
- 3D Model Creation with Autodesk Fusion 360
- IoT (Internet of Things)
   Wireless & Cloud
   Computing Emerging
   Technologies.



**1** Udemy



800+ COURSES COMPLETED greatlearning

Learning for Life

This lockdown has tested our perseverance in many ways. To overcome those difficulties, KCT engaged students with academics through online platforms like Coursera, Udemy, Great Learning courses.

Students and faculties had taken up many courses from Computer Science, Business, Marketing, Management, Personality Development, Communication Learning, Health, Mechanical, Electronics, Programming Language, Data Science domains to enrich their skills.



#### **ACHIEVERS OF KCT & MCE 2020**

Achievers Award is the prestigious award of appreciation of exemplary gogetters from the graduating batch of students every year. We are happy to announce such enthusiastic achievers of our department.



**Jayachandran** 

He co-created the sounding rocket community in KCT. He was also selected for an Internship in Tamil Nadu e-Governance Agency (TNeGA) and contributed to the FACE RECOGNITION PROJECT in Tamil Nadu Government and he worked on a proprietary project of face recognition Al system for Government schools. He held the position as Technical President (2019-2020) in SEDS-KCT, Lead of Sounding Rocket team (2017- 2019), Technical & Innovation management head for the past 3 years, Lead Industrial Research Cell and Embedded team advisor in Research cell (Re'), part of Power Train team in Blitzkrieg (BAJA) team for the year (2017-2018). He bagged the Technical person award SEDS KCT (2018) and a recipient of MG scholarship for four consecutive years.

He is a diligent, disciplined, enthusiastic, passionate, and an alluring sports star of KCT with unmatchable achievements. He was awarded as the Best Goalkeeper in CIT Hockey Alumni Trophy in 2019 and represented as the Sports overall co-ordinator for Kumaraguru Sports in 2019-2020. He was also the DA secretary of Mechatronics department and represented the department as the overall coordinator for yugam 2019 and 2020. He also represented as the hockey team captain for Yugam for two consecutive years 2019-2020. He enthusiastically organized events such as KICS, Turnup, Alumni sports meet, SICA, Yugam Sports and Kalam 20.



Vishal Kumar



**Hari Saravanan** 

He is the winner of the global student entrepreneur award conducted by Entrepreneurs organization in the Coimbatore region for the I-hale product. Winner at TNSI – Tamilnadu Student Innovator for I- hale product in the Coimbatore region. His intriguing projects include an I-hale asthma monitoring device, a smart glove for stroke patients, non-invasive glucometer. He was awarded the global student's entrepreneur award for an I-hale asthma monitoring device in 2019. He was a curious member of iqube as a product designer and Drone developer. He was also a part of the forge as an innovation engineering and a product developer. He joined Protosem to improve his device as a sellable product and started a company in the final semester called AIVA Health Care Technology.

#### **ACHIEVERS OF KCT & MCE 2020**

We are privileged to have achievers who worked constantly worked towards their passion and proved that not only academics matter but also extra curricular and co curricular activities .Here are our seniors who were awarded the achievers award for the academic year 2019 – 2020,

#### In the category of Best Volunteers, the Achievers 2020 are,

As a volunteer leader, it's them who made changes in themselves and paved the way for others to change for the good cause. They encouraged many other fellow students, juniors; engaged and motivate them to grow, and become a source of inspiration. " Volunteers do not necessarily have the time; they just have the heart."



Mr. Venkat V.G
DEPARTMENT ASSOCIATION
MCF



Mr. Mumanna Sasi Kumar YUGAM AND INSTITUTIONAL EVENTS



Mr. Abisheke Veerasundar B GARAGE TEAM BLITZKRIEG



Mr. Dhanaprasanth P
SOCIAL ORGANIZATIONS
YOUTH RED CROSS

#### In the category of Mechatronics Department, Batch (2016 - 2020) Excellent Students are,

Here are the two persons who turned out this impossible into possible by achieving the best .They have manifested the excellent technical skills along with an amazing track record and extracurriculars too .They have demonstrated extraordinary leadership skills that served as an inspiration for many of their juniors. " There is a thin line between impossible and possible and that is determination "



Mr. Sathish Kumar
BEST OUTGOING STUDENT
OF THE BATCH 2020



Mr. Vishal Kumar ALL ROUNDER OF THE BATCH 2020

#### " LEARN, BELIEVE AND ACHIEVE! "



### OUR MCE STUDENTS IN VARIOUS RESPONSIBILITY OF CLUBS AND FORUMS

#### "Responsibility is accepting that you are the cause and the solution of the matter"

The most important aspect of taking responsibility is to acknowledge that success is in their responsibility and to deal with something so that it is their fault if something goes wrong.

We have such responsible people from our department who consciously make decisions, conduct behaviors that seek to improve themselves and help others. Here is the list of students from our department who endorses and holding various responsibilities of several clubs and forums to enhance them and to enrich their surrounding too.

NAME	Year	ROLES
Dhana Prasath	Final Year	Member of LC
Vinothini	Final Year	President of Tamilmandram
Shanmugavadivelu	Final Year	Captain of Ebaja
Sai Prasanth	Final Year	President of RAC
Abinaya	Third Year	Joint secretary of YRC
Rakesh	Third Year	Technical team lead of RAC
Keerthivaasan	Third Year	Technical team co lead of RAC
Samvasan	Third Year	Software development team lead of RAC
Mohan	Third Year	Al team lead of RAC
Kabilesh	Third Year	Safety Trainer of YRC
Hemanath	Third Year	Admin Team of SEDS
Hariharan R	Third Year	Joint Treasurer of Kumaraguru Haasya
Kaushik S	Third Year	<ul> <li>Design lead (Qubate)</li> <li>Design Co_ Lead (Yuva of Kumaraguru)</li> </ul>
E.Hariharan	Third Year	Design and Brake system Lead of TSR
M.Venkatesh	Third Year	Suspension System Lead oh E Baja
Mohit Kangotra	Third Year	Team Manager of TSR
Meeth A Mehta	Third Year	Steering System Lead of TSR
Sridhar	Third Year	Autonomous System Co lead Ré
Saravanamani C S	Second Year	Joint secretary of RAC
Diwakar	Second Year	PRO of Able club



# AWARDEES FROM OUR DEPARTMENT

The most prestigious award one can avail in KCT is Mahatma Gandhi Award. Here is the MG awardees from our Department.

AWardees
Department of
Mechatronics Engineering
Batch 2016 - 2020







VIGNESH P



JAYACHANDHRAN S



SATHISH KUMAR S V



RENUKA DEVI S



MUMMANA SASI KUMAR



MYTHILI KANNAN 16BMC016



HARIBALAJI A



SAILESH BABU S



AKASHRAJ .P



HARIHARAN 16BMC048



SARATH N K 16BMC202



RAKSHITH K



16BMC207

Awardees
Department of
Mechatronics Engineering
Batch 2017 - 2021







THIRUNAVUKKARASU P



ISHTHIAQ HUSSAIN I



VINODHINI R



SAI PRASANTH V



PADMANAABAN A G



MAHARAJA M



KISHORE K



FAIZUDDIN R



MANU MAHARAJ S S



NIRMALPRASAATH T



PRAVEEN M



### AWARDEES FROM OUR DEPARTMENT

Awardees
Department of
Mechatronics Engineering
Batch 2018 - 2022











JAYANANDEN M 18BMC040



VENKATESH M 18BMC024



KEERTHIVAASAN K V R 18BMC050



SIKKANDHAR THANISH G 18BMC036



SAMVASAN P 188MC045



MOHIT KANGOTRA



MEETH A MEHTA



GOKULNATHAN V 188MC028



JACOB H MICHAEL 188MC018



MONISHSIDDARTH V

Awardees
Department of
Mechatronics Engineering
Batch 2019 - 2023



VIGNESH C



KANNIGA GAYATHRI S B



LAVANYA A



MUHSIN AL RAMADAN S



PRADEEP S 198MC008



SURYA R



CIBI ARAVINTHAN M 19BMC027



ABHISHEK M 19BMC048



19BMC007



19BMC053

# IMMERSION PROGRAM

It's the responsibility of the seniors to walk by juniors, to inculcate faith in them, to create a friendly environment for them. To achieve these, we conducted an immersion program for the second year students who officially stepped into the department, virtually. This program acted as an icebreaking session, where the students got to know about our department faculties, ab facilities, and the infrastructure of our department. It was a two days session.

#### SECOND YEAR IMMERSION:

On 29th August 2020, the First Day session commenced with a welcome address, then, agenda sharing, alumni talks, a small exercise to visualize their dream, faculty intro with their specialization, a brief note on the curriculum, resources available in the department, introduction of RIG, Ideathon, personality test and ended with Q & A session.

The Second Day session has happened on August 31st with the introduction of DA, a brief on placement procedure, higher studies, and competitive exams. Alert, awake and attentive task, a brief on research and project works, Webinar on journal writing, Q & A session, and ended with vote of thanks. The winning team of the Ideathon was given a reward.

#### FIRST YEAR IMMERSION:

For the incoming 1st year students, the immersion program happened virtually through MS Teams on December 05, 2020. Orientation was given to them and was taken a LinkedIn tour. This inculcated in them, the importance of posting their achievements and exposing their works to the world.





#### **IGTV SERIES**



IGTV series is a platform that brings to light the students with eminent skills. Those astonishing students are interviewed. It is launched on Instagram once a month to showcase the student projects and their achievements. This will boost other students to innovate more and to come out with colourful wings

#### **MULTI DIMENSIONAL QUIZ**

This new initiative was taken to bring up the various concepts in different subjects to the students in form of a quiz. The correct answer with explanation will be revealed on the next day and the best assenter will also be rewarded. This will help the students to learn new concepts and will also enrich them with knowledge. This multidimensional platform will help them to flourish in multiple ways.





MECHATRONICS ON FIELD 2.0



ROBOVIE

Robovie, developed by the Advanced Telecommunications Research Institute International (ATR) in Kyoto, uses lasers to measure social distancing and politely asks shoppers to cover up and guides them around the store. The robot approaches and warns customers who are not wearing masks or maintaining social distancing protocol, in the latest advance in

#### MCE ON FIELD 2.0

This field will provide information on all the new technologies that are invented worldwide. This will enhance the students with day-to-day technologies.

#### MCE KCT CONNECT

Connect the big minds of our department with young enthusiastic minds. This platform connects young KCT Mechatronics minds with great professional alumni in various fields. The main motto is to connect our students with you and get support in higher studies, projects, internships, and also to get aware of the new trends in industries and in specific domains through MCE-KCT connect LinkedIn group.











### DEPARTMENT ASSOCIATION

Department Association is the right opportunity to make use of and improve our Personality and Social skills. It is the right place to implement our new ideas for our growth in various fields. It is a way to conduct yourself in a manner that will set an example and a benchmark to our juniors and fellow Mechatrons.

#FOR THE STUDENTS
#OF THE STUDENTS
#BY THE STUDENTS

#### **DA RECRUITMENT**

The Department of Mechatronics Engineering conducted recruitment for the 2nd and 3rd years. It was conducted in two rounds.

The Immersion Program which took place on 26th September had Group Discussion. This session was organized to enhance the team flow and team bonding. The Coordinators and Executives proposed to conduct a webinar or an event. The plans were successfully accomplished and being carried out till now.

Then came the final round. The students were asked to attend the Personality test and to submit the action plan presentation. DA Faculty Incharge, the President, and other final year DA members were the interviewers. Then, responsibilities were assigned to the interviewees in the following week.



# DEPARTMENT ASSOCIATION MEMBERS (2020-21)



TREASURER AKBAR ALI



ECHNICAL HEA PRAVEEN



LACEMENT COORDINATOR
SAI PRASANTH



XTRA-CURRICULAR HEA VINOTHINI



HIGHER STUDIES &

OMPETITIVE COORDINATOR

HARI SHANKAR



SECRETARY SAMVASAN



JOINT TREASURER
HAREESH CHANDRAN



EXTRA-CURRICULAR COORDINATOR ABINAYA



LUMNI COORDINATOI MAYUKHA



NNOVATION & RESEARC COORDINATOR KEERTHIVAASAN



MEDIA & MARKETING COORDINATOR ABISHEK



MEDIA & DOCUMENTATIO COORDINATOR SHIVA PADMANABAN



ENTREPRENEURSHI COORDINATOR RAKESH



INDUSTRIAL CONNECTION COORDINATOR
HEMANATH



ECUTIVE COORDINATOR
THARUN



COORDINATOR
RISHI KUMAR



JOINT SECRETARY
RAGHUL SENTHIL



XTRA-CURRICULA EXECUTIVE DAKKSHESH



NANDHITHA



INNOVATION & RESEARCH EXECUTIVE PRADEEP







ENTREPRENEURSHI EXECUTIVE LOKESH



EXECUTIVE SELVA KANNAN



EXECUTIVE KAILASH



EXECUTIVE MEMBER ABISHEK



EXECUTIVE MEMBER RISHIKANTH



#### **FIRST ISSUE - DATE**

#### Department of Mechatronics Engineering



DA is privileged in informing you that we have conducted several activities from July to December 2020.

We take this platform to thank every student from DA and active participants from our department for rendering their involvement in the Technical and Non-technical sides.

We value and respect HOD and Faculty members for always being on our side and giving constant encouragement.

We couldn't have pulled these off without the participants! Our deepest thanks to you for deepest involvement and support!

We would wish to thank the faculties and the DA members for bringing out this successful Magazine!!



Dr. M. SaravanaMohan
Chief Editor



Mr. R. Raffik
Chief Editor



Nandhitha
Content Writer



Abinaya

Content Writer



Pradeep **Editor** 



# KNOWLEGE - CHARACTER - TRANSFORMATION

