# MEXPRESS

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**Mechanical Engineering Association DEPARTMENT OF MECHANICAL ENGINEERING** 



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# **CONTENTS**

<b>Details</b>	Page No.
Editors' Portfolio	4
Associate Editor's Portfolio	5
Programmes Organized	8
Value Added Course Organized	12
Resource Persons	12
Papers Presented	13
Papers Published	13
Awards Received	15
Collaborative Activity	15
Industry Linkage	15
Patents Filed	16
Programmes Attended	16
Manuscripts Reviewed	17
Industrial Visits	18
Snap Shots	19
Students Participation	21
Students Publication	21
Students Activities	21
Placements	24
Opportune: Conference	28
Vision, Mission, POs, PSOs and PEOs	29

# From the Editors...

Hello there, dear readers! The sixth issue of our departmental newsletter, MExpress, is the one you currently reading. As usual, you will come to know more about the department's programs, the programs that our faculty members attended, the papers that our faculty and students published, the faculty members who acted as resource persons, the faculty members' reviews of manuscripts, the faculty members' awards, patents published, the organized industrial visits, and the participation and placement of our students in this issue. I hope you will enjoy reading.

We sincerely invite all readers to provide us with feedback by clicking on the links in the various media on the top page. We also invite our readers to share their thoughts.

#### Editors....





## STRICTLY TURBULENT - Part 3



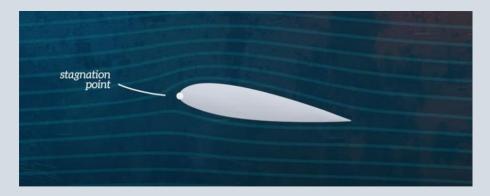
Ms. Jobisha Celin
20BME051
3<sup>rd</sup> year mechanical - B

Following the last article, Let's dive into how a pipe flow looks like if a cross section is taken for our view. Let's look at how the velocity profile and the shear stress profile are like. We know that when a fluid particle encounters a surface the velocity reduces



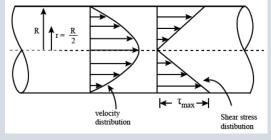
**Pipe Flow Laminar** 

to zero this is the stagnation point where the kinetic energy is zero, but pressure attains the maximum value.



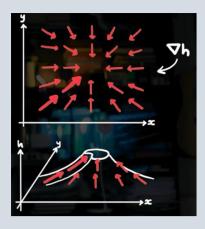
Stagnation point-aero foil

Therefore, we know that the velocity of the fluid is zero near the surface and slowly increases towards the center and decreases as the other surface's presence is felt by the particles. What happens then to the shear stress profile of the fluid? We have seen that for the angular deformation, a point in fluid element must stay intact at a place and we know that at the stagnation point, the particle doesn't move, therefore we can feel that the shear stress will be maximum at the surface and slowly decreases towards the center and increases towards the edge.



Velocity and shear stress profile

However, to express the fluid flow in terms of Bernoulli's equation the fluid flow is assumed to be irrotational. That is the rotations that arise due to this shear stress are all solid body rotations, that is, the angular deformation on one side is equal to the angular deformation on the other side of the fluid element and they cancel out each other.



Divergence-the idea

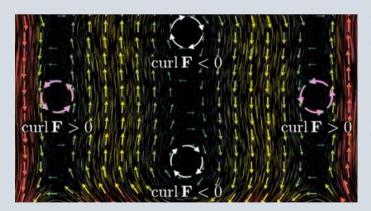
In vector calculus we might have come across the term divergence and curl. Its true to tell that there is physical meaning to these concepts, in fluid mechanics, divergence refers to the tendency of particles accumulating over some regions over compared to the others. Consider a fluid flow regime in any application and imagine it in 2 dimensions. If a fluid is compressible, that is the density is not constant over the regime, then, the particle is tending accumulate at some points in that vector field than at the others. This way we can conclude that the fluid flow's divergence is not zero. We all know water is incompressible and therefore the divergence of water is 0. To make it simpler, consider a packet of seeds, when you open it abruptly the seeds fall out around the packet and the

distribution of it, is not equal, this is not the exact definition but the idea.



Divergence on a vector plane

What is curl then? and what does it have to do with rotation?



We all have been to the Ferris wheel; do you think that we as a body we rotate? No, our central axis is alwa ys aligned with respect to gravity with no rotation whatsoever. How about spinning rides we know that if we see from the top one can feel that spinal axis remains vertical to gravity, but we rotate about a point that is our eyes looks at the 360 of the park.

Consider a vector field where the flow above a vector point is fast but below is slower, at this point, one can sense the clockwise rotation of the fluid element on that vector field. When its clockwise it's a negative curl and counter close wise is positive. We can see that the spinning axis is perpendicular the vector plane. That is the vorticity is the cross product between two vectors.



Ferris wheel

To put it more clearly assume there is no effect of air resistance and people are given a flag when they go to a Ferris wheel, and the spinning rides, one can feel that the alignment of the flag remains the same in the Ferris wheel and changes in the spinning rides. Therefore, the second case is the actual case of rotation of the fluid particle.



Spinning ride

On the next issue we will cover what is shear rate tensor and how its represented in a fluid volume. The difference between, incompressible flow and incompressible fluid.

# **PROGRAMMES ORGANIZED**







A seminar on "Advanced Technology for Younger Minds: - Internet of Things" was organized on 24-11-2022 for the students of Government Higher Secondary School, Vilankurichi, Coimbatore. Dr. M. A. Vinayagamoorthi, Assistant Professor – II, along with Mr. Jeeva Bharathi, Mr. Lokeswaran, and Mr. Vetriselvan from III Year Mechanical, coordinated the event.





On November 14, 2012, a hands-on training workshop on "MS Excel Functions: Basics and Advanced" for support staff was held. **Dr. B. N. Sreeharan**, Assistant Professor – II was the resource person. **Dr. V. R. Muruganantham**, Associate Professor, and **Mr. P. D. Devan**, Assistant Professor – II coordinated the workshop.









A one-day national level workshop on "Welding for Beginners" in association with the Indian Welding Society was organized on 10-11-2022. **Dr. N. Raju**, Honorary Secretary, Indian Welding Society, Southern Zone, and **Mr. S. Singaravelu**, Vice Chairman, IWS, Southern Zone, were the resource persons. **Dr. V. Manivelmuralidaran**, Assistant Professor - II and **Dr. A. P. Arun**, Assistant Professor - II coordinated the workshop.









Another workshop on "Fused Deposition Modelling" was organized on 24-11-2022. **Mr. A. Prabhakaran,** Assistant Professor - II, Department of Automobile Engineering, Kumaraguru College of Technology, was the resource person. The workshop was coordinated by **Dr. B. N. Sreeharan,** Assistant Professor - II and **Mr. P. Pradeep,** Assistant Professor - II.









They both, **Dr. B. N. Sreeharan**, Assistant Professor – II and **Mr. P. Pradeep**, Assistant Professor - II also coordinated another workshop on "Excel Functions - Basic and Advanced" on 28-11-2022. **Dr. B. N. Sreeharan**, Assistant Professor - II, Department of Mechanical Engineering, Kumaraguru College of Technology was the resource person.









On November 25, 2022, a gas chromatography demonstration was planned as part of the training. **Mr. B. Jeeva,** Assistant Professor-II, Department of Mechanical Engineering, Kumaraguru College of Technology, provided the training.







One more workshop on "Design Now" using Autodesk Fusion 360 was organized on 11-11-2022 **Mr. N. Mohan Murali,** Executive Trainer, ICT Academy, was the resource person. **Mr. R. S. Mohan Kumar,** Assistant Professor – II, coordinated the event.



On November 14, 2012, a technical session on "Resume Writing and Industry Specific Manpower Recruitment" was held. **Mr. R. Ramachandran**, soft-skill trainer, was the resource person. The session was coordinated by **Mr. P. D. Devan**, Assistant Professor – II.



## **VALUE ADDED COURSES ORGANIZED**



A value-added course on Structural analysis using ANSYS" is being organized by **Dr. M. Thirumalaimuthukumaran,** Assistant Professor III, from 08-11-2022 to 30-01-2023 for about 30 Hours.

# **FACULTY AS RESOURCE PERSONS**

**Dr. V. R. Muruganantham,** Associate Professor, delivered a guest lecture on "Environmental Pollution" at Nehru College, Coimbatore, as part of the National Science Foundation on 18-11-2022. On July 11, 2022, he also conducted an energy audit at the CMS College of Engineering and Technology in Coimbatore as part of the National Science Foundation.





On November 16, 2022, **Dr. B. N. Sreeharan,** Assistant Professor - II, gave a guest lecture on "Fluid Mechanics and Machinery: Dimensional Analysis" at the Department of Mechanical Engineering, KGiSL Institute of Technology, Coimbatore. And he was the resource person for the hands-on workshop on "Excel Functions - Basic and Advanced" on 28-11-2022 organized by the Department of Mechanical Engineering, Kumaraguru College of Technology, Coimbatore.

**Dr. N. Sangeetha,** Senior Associate Professor, acted as an external expert in the Doctoral Committee Meeting held on 30-11-2022 at the Mechanical Engineering Seminar Hall of the Karunya Institute of Technology and Sciences, Karunya Nagar, Coimbatore – 641 114.





**Dr. S. Bhaskar,** Associate Professor, delivered a guest lecture on "Career Progression" during KCT – Swagatham to first-year, newly joined students – Batch of 2022–2026 on 09-11-2022. He also handled a three-hour training session on 11.09.2022 on "Outcome Based Education" during the 10th Online Faculty Induction Programme (09-11-20222 to 08-12-2022) organised by UGC - Human Resource Development Centre (UGC-HRDC) Sardar Patel University Mota Bazar, Opp. SICART, Vallabh Vidyanagar-388 120, Gujarat. Further, Dr. Bhaskar provided placement training for 3rd year KCT Mechanical

Engineering students on "Attitude and Zeal – The Way to Strike" on 16-11-2022. In addition to the above, he trained the students of Sri Eshwar College of Engineering on the "joy of learning" during the freshman orientation program for the UG students who joined during the academic year 2022-2023 on 22-11-2022.

# **PAPERS PRESENTED**



**Dr. V. Manivelmuralidaran,** Assistant Professor III, presented a paper entitled "A Case Study of Bus Bar Heat Transfer Optimization Using Taguchi Technique for Low Tension Application" in the International Conference on 4th Innovative Product Design and Intelligent Manufacturing Systems, National Institute of Technology, Roorkela. from 25-11-2022 to 26-11-2022.

**Mr. B. Jeeva,** Assistant Professor II, presented a paper entitled "Mechanical Seed Implanter for Sunflower and Groundnut Seeds: Design and Fabrication" in the International Conference on 4th Innovative Product Design and Intelligent Manufacturing Systems, National Institute of Technology, Roorkela. from 25-11-2022 to 26-11-2022.



# **PAPERS PUBLISHED**

**Mr. S. Ramanathan,** Assistant Professor – III and **Mr. P. Karthi,** Assistant Professor – I, published their paper, "A review on solar desalination techniques using vacuum technology," in the Scopus indexed International Journal Part C—Journal of Mechanical Engineering Science.







**Dr. K. K. Arun,** Assistant Professor – III, published a paper entitled "Investigation on Natural Fiber Reinforced Polymer Matrix Composite" in the Scopus- and SCI indexed International Journal Materials Today: Proceedings.

**Dr. P. R. Ayyappan**, Assistant Professor (SRG) and **Dr. A. P. Arun**, Assistant Professor – III published their paper entitled "Assessment of the Synergetic Performance of Nanostructured CeO2-SnO2/Al2O3 Mixed Oxides on Automobile Exhaust Control" in the Scopus, Web of Science, and SCI indexed international journal MDPI Journal of Materials."







**Dr. B. N. Sreeharan,** Assistant Professor – II, published a paper entitled "A Systematic Way of Using Preference Selection Index Methodology for Selecting Suspension Coil Spring Material" in the Scopus-indexed International Journal, Materials Today Proceedings, Volume 68, Part 6, 2022, Pages 2249–2257, https://doi.org/10.1016/j.matpr.2022.08.443.

**Dr. V. R. Muruganantham,** Associate Professor, and **Mr. P. D. Devan,** Assistant Professor—II, published a paper titled "Six sigma - DMAIC method for material choice in natural fibers in polymer composite-based wall brick" in the Scopus-indexed AIP Conference Proceedings (https://doi.org/10.1063/5.0108188). They also published another paper, "Prediction of mechanical characteristics of aluminium 7075 metal matrix composites,", https://doi.org/10.1063/5.0108115, in the same Scopus-indexed Conference Proceedings.





**Dr. A. P. Arun,** Assistant Professor – III, published a paper entitled "Mechanical, fracture toughness, and Dynamic Mechanical properties of twill weaved bamboo fiber-reinforced Artocarpus heterophyllus seed husk biochar epoxy composite", Volume 43, Issue 11, in the Scopus, SCI, and WOF indexed International Journal of Polymer Composites, Wiley publications.



**Mr. R. S. Mohan Kumar,** Assistant Professor – II and **Dr. A. P. Arun,** Assistant Professor – III, published their paper, "A Study on Influencing Process Parameter on Product Quality," in the Scopus-indexed AIP Conference Proceedings.





**Dr. S. Balasubramanian**, Associate Professor, **Mr. R. S. Mohan Kumar**, Assistant Professor – II and **Dr. M. A. Vinayagamoorthi**, Assistant Professor – II published their paper entitled "Prediction of Thermal Disruption and Microstructure Study on Cast Iron Pump Casing in Metal Removal Process" in the Scopus-indexed AIP Conference Proceedings.









**Dr. M. A. Vinayagamoorthi,** Assistant Professor – II, published a paper entitled "A study on mechanical properties of aluminium alloy AA6061 using pneumatic drilling machine" in the Scopus-indexed AIP Conference Proceedings 2446, 040019 (2022); https://doi.org/10.1063/5.0108944.

**Dr. M. Balaji,** Associate Professor, published a paper, "Online Teaching Learning Process - Outcomes And Quality Concerns" a national journal.



#### **PAPERS REVIEWED**



**Dr. C. Velmurugan,** Professor and HoD, reviewed a paper, "Influence of Nano Graphite Particles on the Mechanical and Wear Characterization of Al6082 Alloy Nano Composites," for the Scopus indexed International Journal Advances in Material Science and Engineering.

# **AWARDS RECEIVED**

**Dr. M. Balaji,** Associate Professor, was awarded as "Best PG Coordinator-2021-2022" from Kumaraguru College of Technology during K-Honours function on 23-11-2022.





**Dr. T. Karuppusamy,** Assistant Professor – II was awarded as "Engal Aasan" from Kumaraguru College of Technology during K-Honours function on 23-11-2022.

# **COLLABORATIVE ACTIVITY**

A collaborative activity with KCTBS and Quality Circle Forum of India starting from 11-05-2022 for 3 months 5S implementation at the CoE office, Kumaraguru College of Technology, was successfully implemented. **Dr. M. Balaji**, Associate Professor, was part of the implementation team.



## INDUSTRY LINKAGE



On November 30, 2022, a consultancy on "Thermal measurements for Battery" for **M/s. Pinnacle Lithium Power Private Limited,** Chinniyampalayam, Coimbatore, 641062 was taken as goodwill-based and research work. **Mr. B. Jeeva,** Assistant Professor – II, initiated the consultation. He also coordinated for the CII Industrial Innovation Award 2022 Assessment on 11-05-2022, which was conducted virtually.

#### **PATENT PUBLISHED**

**Dr. R. Manivel,** Professor and **Mr. R. Sundar,** got published their patent bearing no. 202241065141A(19) "Development of Thermal Jacket" on 14-11-2022.



# **PROGRAMMES ATTENDED**



**Mr. S. Sivakumar,** Assistant Professor – II, participated in a workshop on "Welding for Beginners" on 10-11-2022, organized by Kumaraguru College of Technology in association with the Indian Welding Society.

**Mr. P. Pradeep,** Assistant Professor – II, participated in a workshop on "OBE based Revised Bloom's Taxonomy, Delivery Methods, and Assessment Tools" on 18-11-2022 organized by KLDA, Kumaraguru College of Technology.



**Mr. P. D. Devan,** Assistant Professor – II, participated in a guest lecture on "Improving research performance using Science Direct and Scopus" on 16-11-2022 organized by KCT and the Researcher Academy.

**Dr. R. Manivel,** Professor, participated in "Thrust Areas of LSRB, DBEL, DRDO, Bangalore" on 29-11-2022, organized by DBEL, DRDO, Bangalore.





**Dr. V. R. Muruganantham,** Associate Professor, participated in a Guest Lecture on "Improving research performance using Science Direct and Scopus" on 16-11-2022 organized by KCT and the Researcher Academy.

**Dr. S. Rajesh,** Assistant Professor – II, participated in a workshop on "OBE based revised Bloom's taxonomy, delivery methods, and assessment tools" on 18-11-2022 organized by KLDA, KCT.





**Dr. S. Sivakumar,** Assistant Professor – III, participated in a training on "Academic Process Audit" on 01-11-2022, organized by Zandig TQM Solutions Private Limited, Bangalore. He also participated in a one-week online FDP on "Trends & Challenges in the Development of Electric & Hybrid Electric Vehicles (Series 2)" from 14-11-2022 to 18-11-2022, organized by Lendi Institute of Engineering & Technology, Andhra Pradesh, India.

**Dr. S. Balasubramanian,** Associate Professor, participated in an FDP on "Advanced Material Characterization Techniques (AMCT- 2022)" from 07-11-2022 to 11-11-2022, organized by OP Jindal University, Punjipathra, Raigarh, Chhattisgarh 496109.



**Dr. M. Thirumalaimuthukumaran,** Assistant Professor – III, participated in a seminar on "The Guest Editor Experience: An Inside Look" on 30-11-2022 organized by Sage Publishers. He also participated in a seminar on "Improving research performance using Science Direct and Scopus" from 16-11-2022 to 16-11-2022, organized by KCT, Researcher Academy. Further, he participated in another seminar on "How to Get Published Webinar Series - Promoting Your Article" from 16-11-2022 to 16-11-2022, organized by Sage Publishers.

**Dr. M. A. Vinayagamoorthi,** Assistant Professor – II, participated in an FDP on "Advanced Material Characterization Techniques (AMCT-2022)" from 07-11-2022 to 11-11-2022, organized by OP Jindal University, Punjipathra, Raigarh, Chhattisgarh 496109.



**Dr. B. N. Sreeharan,** Assistant Professor – II, participated in a workshop on "MS PowerPoint Presentation" on 12-11-2022 organized by the Liferay Foundation, Coimbatore. He also participated in an FDP on "Additive Manufacturing for Environmental Sustainability" from 24-11-2022 to 25-11-2022, organized by SKCT, Coimbatore.

# **MANUSCRIPTS SUBMITTED**



**Dr. V. Manivelmuralidaran,** Assistant Professor – II, submitted an article titled "Parametric optimisation influences cold cracking of HSLA 950A using Taguchi method" for publication in Metallurgical Research & Technology which is a Web of Science journal.

**Dr. S. Rajesh,** Assistant Professor – II, submitted an article titled "Influence on Alumina, Molybdenum disulfide And Red Mud Particle with Aluminium Hybrid Composites Materials for Automobile clutch plate Application".



# **INDUSTRIAL VISITS**



M/s. Ashok Leyland, Hosur



M/s. India Nippon Electricals Limited, Hosur



M/s. Lakshmi Machine Works, Coimbatore

Industrial visit to M/s. Ashok Leyland, Hosur and M/s. India Nippon Electrical Limited, Hosur, was organized on 25-11-2022. Dr. T. Karuppusamy, Assistant Professor – II and Dr. M. A. Vinayagamoorthi, Assistant Professor – II coordinated the visit. They coordinated another visit to M/s. Lakshmi Machine Works, Coimbatore on 19-11-2022.







**Dr. S. Thirumurugaveerakumar,** Associate Professor and **Mr. S. Sivakumar,** Assistant Professor – II coordinated an industrial visit to **M/s. Gillbarco-Veeder- Root**, Coimbatore on 29-11-2022.





# **SNAPSHOTS**





Seminar on "Advanced Technology for Younger Minds - Internet of Things (IoT)"



Industrial Visit to "Lakshmi Machine Works, Coimbatore"



Industrial Visit to "M/s. Ashok Leyland, Hosur"



Engal Aasan - Dr. T. Karuppusamy

#### STUDENT PARTICIPATIONS



**Mr. Mahesh Kumar N** (20BME068) of 3<sup>rd</sup> year Mechanical Engineering has participated in the regional level workshop conducted on 11<sup>th</sup> November, 2022 entitled as "AUTODESK FUSION 360" organized by Mohan Murali N.

**Mr. Akshay Kanna B** (21BME008) of 2nd year Mechanical Engineering has taken part in the regional level webinar conducted on 6th November, 2022 entitled as "PYTHON BEGINNERS COURSE" organized by Balamurugan A, founder of Fleschool.





**Mr. Shakeel Akthar S** - (20BME104) of 3<sup>rd</sup> year Mechanical Engineering C section has participated and also secured 1<sup>st</sup> place in Project Presentation entitled as MECHTRIGERZ organized by Hindusthan Institute of Technology on 18<sup>th</sup> November, 2022.

## STUDENT PUBLICATIONS

Mr. R. A. Indrajith, Mr. D. Deepachandran, Mr. G. Suriya, along with Dr. Vinayagamoorthi M A, their faculty guide published their paper titled "A study on mechanical properties of aluminium alloy AA6061 using pneumatic drilling machine" in the AIP Conference Proceedings 2446, 040019 (2022); https://doi.org/10.1063/5.0108944.

# **STUDENT ACTIVITIES**

ATTITUDE AND ZEAL - THE WAY TO STRIKE

The Mechanical Engineering Association has organized a seminar named ATTITUDE AND ZEAL – THE WAY TO STRIKE, a career guidance session for third-year mechanical engineering students. It was an interactive session handled by Dr. S. Bhaskar, Associate Professor, Mechanical Department. It was held on November 16, 2022. Dr. M. A. Vinayaga Moorthi, Assistant Professor II and Dr. V. R. Muruganantham, Associate Professor, were the faculty coordinators, followed by the student organizer Abdul Khadar Hussain S., placement coordinator, MEA.



Totally, 110 students participated in the event. It helped the students understand the career opportunities in KCT and a path to making them placement ready. The outcome of this event is to help the students figure out who they are and what they want out of their education, career, and life; identify the factors influencing their career development; and help the students assess their interests, abilities, and values.

This event was organized by MEA under the guidance of Dr. V. R. Muruganantham, Associate Professor and Dr. M. A. Vinayagamoorthi, Assistant Professor - II.

# MR. CAD



On November 28, 2022, from 5 p.m. to 7 p.m., the Mechanical Engineering Association has organized an event called "MR. CAD." Mr. Nandeesh and Mr. Varun are the student coordinators for this event. It is mainly used to test the knowledge of modeling software. Sketching: An isotropic drawing was given, and the participants had to represent the given model in front, top, and side views on a sheet for the 1st round, followed by Part Modeling: – 2D drawing was given, and the participants had to prepare a 3D model in SolidWorks with the given material and find the correct mass of the prepared 3D model for the 2nd round. Participants have been shortlisted based on the following criteria:

- Both round 1 and round 2 results were calculated by the number of questions answered correctly.
- A screenshot was taken, and the 3D file of their model was uploaded and evaluated.

The main objective of the event was achieved as the students gained few technical knowledge in modelling software and it tested their level of knowledge in CAD.

#### MR. CAD Winners:

- 1. Mr. Saigugan C V 21BME217
- 1. Mr. Gopinath V 21BAE203
- 2. Mr. Abinesh P 21BMC002

This event was organized by MEA under the guidance of Dr. V. R. Muruganantham, Associate Professor and Dr. M. A. Vinayagamoorthi, Assistant Professor - II.

#### **INDUSTRIAL VISIT**



**Company Name:** Gilbarco Veeder Root **Location:** Echanari, Coimbatore

The Mechanical Engineering Association has organized an industrial visit for the third year Mechanical Engineering students to visit Gilbarco Veeder Root, Echanari, Coimbatore, on November 29, 2022. Gilbarco Veeder-Root is part of the Vontier Group, which is a global industrial technology company focused on smarter transportation and mobility. The purpose of the group is "Mobilizing the future to create a better world." As a group, it focuses on pioneering solutions, advanced safety and security, efficiency, and environmental compliance. It believes that the younger generation is crucial to shaping the country's future. We, the students, have a responsibility to create a link among ourselves to get an opportunity to visit and understand industry dynamics.

More than 50 students have benefited from this IV. The IV arrangement has been done by Dr. K. Senthamaraikannan and Dr. S. Thirumurugaveerakumar. Mr. Abdul Khadar Hussain S, Mr. Sabarivasan S and Mr. Vaseekaran S L from the third year of Mechanical Engineering successfully coordinated this IV. It was an interactive session with an industrial expert to gain knowledge about the current requirements of the industry.

In the same context, we are happy to host an industrial visit and experience real time industry aspects. How the industry actually works, what are the roles and responsibilities each person has, and how to adapt to industrial circumstances.



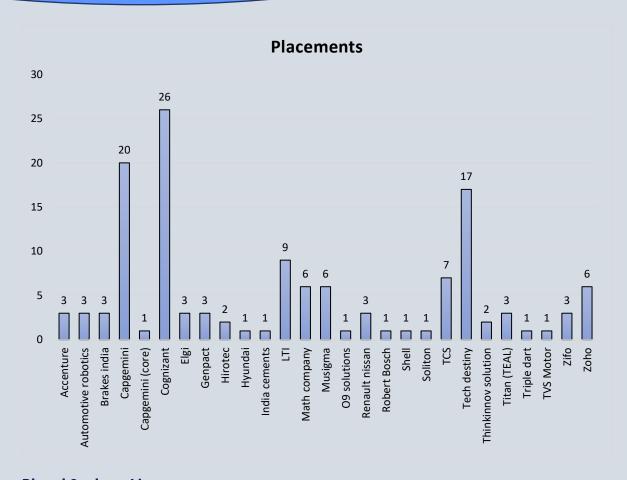
This Industrial Visit was organized by MEA under the guidance of Dr. V. R. Muruganantham, Associate Professor and Dr. M. A. Vinayagamoorthi, Assistant Professor - II.

# **PLACEMENTS**

# **Placement Summary**

Name of the Company	Nos. Placed
Accenture	3
Automotive robotics	3
Brakes India	3
Capgemini	20
Capgemini (core)	1
Cognizant	26
Elgi	3
Genpact	3
Hirotec	2
Hyundai	1
India cements	1
LTI	9
Math company	6
Musigma	6
O9 solutions	1
Renault Nissan	3
Robert Bosch	1
Shell	1
Soliton	1
TCS	7
Tech destiny	17
Thinkinnov solution	2
Titan (TEAL)	3
Triple dart	1
TVS Motor	1
Zifo	3
Zoho	6
Total Offers	134

No. of students placed: 93



# **Placed Students List**

Name of the Student	Companies placed	Highest Salary (LPA)
ABDUL ANAS S	Capgemini	₹ 4.25
ABISHEK S P	Capgemini	₹ 5.75
AJITHKUMAR G	Elgi, Hirotec	₹ 5.00
AKILESH M	Musigma	₹ 3.50
AMMAR HUSAIN M F	Soliton	₹8.00
ANANTH S	Genpact	₹ 6.30
ANBARASU K	Cognizant, LTI	₹ 4.00
ARUL MANOJ R	Accenture	₹ 4.50
ASHOKKUMAR C	Cognizant	₹ 4.00
ASWIN BAALAJE R	Math company, Cognizant	₹ 5.00
BARATH KUMAR S	Capgemini, Genpact, Cognizant	₹ 4.25
BARATHRAJ P	Capgemini	₹ 5.75
BAVIN KUMAR S	Tech destiny	₹ 3.50
BHUVANESH D	Capgemini, LTI, Cognizant	₹ 5.00

Name of the Student	Companies placed	Highest Salary (LPA)
CHARUNIKA A	Renault Nissan, Accenture, Capgemini, TCS	₹ 4.50
DINESH KUMAR R	Tech destiny	₹ 3.50
DINESH S	Tech destiny	₹ 3.50
DINESHRAJ B	Tech destiny	₹ 3.50
GEORGE JOHN PANICKER	Math company	₹ 5.00
GIDEON DEVAIRAKKAM S	Thinkinnov solution	₹ 5.00
GOPALAKRISHNAN V	Capgemini	₹ 4.25
HARISS D	Tech destiny	₹ 3.50
HARISUDHAN	Automotive robotics	₹ 3.00
HARSHAVARDHAN K	Cognizant, Capgemini	₹ 4.25
HARSHAVARTHAN K S	Cognizant, LTI, Musigma	₹ 4.00
HRITHIKARUNKUMAR M	LTI	₹ 4.00
JAGATHEESWARAN S	TCS, Zoho	₹ 3.75
JANA KRISHNAN T	Math company, Cognizant, TCS	₹ 5.00
JANAKIRAM C K	Tech destiny	₹ 3.50
JASWANTH KUMAR G	O9 solutions	₹ 10.18
JAYABALU S	Capgemini	₹ 4.25
KAMALESH S	Titan (TEAL), Capgemini, Cognizant, LTI, Zoho	₹ 5.60
KAVI ARASU L	Triple dart, Cognizant, TCS	₹ 5.00
KISHORE C	Tech destiny	₹ 3.50
KISHORE KRISNA S	Capgemini, Cognizant	₹ 4.25
KISSAN U	Cognizant	₹ 4.00
KRISHNAKANTH S	Tech destiny	₹ 3.50
LALITH H N	Titan (TEAL)	₹ 5.00
MANAV R SAMANT	Shell, Capgemini (core), Math company	₹ 7.29
MANIBHARATHI R	Cognizant	₹ 4.00
MANIMARAN B	Capgemini	₹ 4.25
MOHAMED RISWAN U	Math company	₹ 5.00
MOHAMED THOUFEEK M	Tech destiny	₹ 3.50
MOHAN R	Robert Bosch, TVS Motor	₹ 3.00
MOHANPRASAD T	Tech destiny	₹ 3.50
MONISH R	Zoho	₹ 4.50
NALAN M	Capgemini, Math company, Cognizant, TCS	₹ 5.75

Name of the Student	Companies placed	Highest Salary (LPA)
NAVANEETHAN M	Zifo	₹ 4.75
NAVEENKUMAR S N	Zoho	₹ 4.50
NAVIIN HARIHARA DHANUSH P P	Musigma	₹ 3.50
OBLI KARTHI M	Capgemini, Accenture, LTI	₹ 4.75
PADRINARAYAN R	Elgi, Brakes India	₹ 5.00
PRABHAKARAN P	Titan (TEAL)	₹ 5.00
PRAVEEN K	Hyundai	₹ 7.87
PRAVEEN KUMAR J	Tech destiny	₹ 3.50
RAJ KUMAR R	Cognizant	₹ 4.00
RAJA SEKAR H	Zoho	₹ 4.50
RAMKUMAR M S	Automotive robotics	₹ 3.00
RANJITH R	Tech destiny	₹ 3.50
RAVI RAGUL R	Brakes India	₹ 3.90
RICKY RAJ R	Tech destiny	₹ 3.50
RISHIMARAN E	Musigma	₹ 3.50
ROHITH P	LTI	₹ 4.00
ROSHAN LOUIE R	Cognizant	₹ 4.00
RUBADEVI	Elgi, Musigma	₹ 5.00
SABARISHKUMAR R K	Capgemini, Zifo, Cognizant	₹ 5.75
SANJAY S	Cognizant, Genpact, Cognizant	₹ 4.00
SARVESH CHINNIAH A	Cognizant	₹ 4.00
SATHYA RAGAVENDAR S	Thinkinnov solution	₹ 5.00
SATISHKUMAR J	Tech destiny	₹ 3.50
SHYAM S B	Capgemini, Zifo	₹ 4.75
SIVAPRASAD M K	Automotive robotics	₹ 3.00
SRINIVASAN K	Cognizant	₹ 4.00
SUDHARSAN K	Cognizant	₹ 4.00
SUVANRAJ R	Capgemini, Cognizant	₹ 4.25
TAMIL SELVAN M	TCS, Zoho	₹ 3.75
TARUN V	Musigma	₹ 3.50
THIBAKARAN G	India cements	₹ 3.00
THIRUCHITRAMBALAM M	Cognizant, LTI	₹ 4.00
VEESHAL K S	Tech destiny	₹ 3.50

Name of the Student	Companies placed	Highest Salary (LPA)
VETTRIVEL S	Capgemini, Cognizant, LTI	₹ 4.25
VIGNESH K	Tech destiny	₹ 3.50
VIGNESHRAJ S	Capgemini, Cognizant	₹ 4.25
VIJAY KARIKALAN P	Hirotec	₹ 3.00
VIKRAM M	TCS	₹ 3.75
VIPIN S	Renault Nissan	₹ 4.25
VISHNU J	Renault Nissan	₹ 4.25
VISHNU VARDHAN K S	Tech destiny	₹ 3.50
YOGESHKUMAR S	Capgemini	₹ 4.25
YOGESWARAN M	Brakes India	₹ 3.90

# **OPPORTUNE: Conferences**





**International Conference** on recent trends in Management, Engineering and Technology (ICMET) - Online

Organized by VVIT, Purnea and Global Conference Hub, Coimbatore



# Track 1: Engineering and Technology

- Big Data & Analytics Bio-Informatics & Soft Computing/Software Applications Block Chain Technology Engineering, Online Computer Architecture Applications
   Claud Service, Computing & Language Translators/On line education

- Communication Engineering
  Computer Networks, Security & Applications
  Oyber Security & Intellectual property
  Rights
  Obase & Data Mining Applications
  Data Science & Analytics Decision
  Support Systems
  E-Commerce/e-Education/e-Business/e-Society/e-Learning
  Human Computer Interaction
  II-Project Management / II-Security/II-Education / Applications
  Tools Intelligent computing
  Internet of Things, Internet of Drons
  Independent of Management
  Natural Language processing/Machine
  Learning/Ontological Applications
  Predictive
  Analytics/Probabilistic/Statistical
  approaches

# Registration Fees

(including International Poster/Conference Participation with Publication in Google Scholar, Crossref,e-Issn & Doi Indexed Journal)

Indian Participants International Participants

Students - ₹ 2799 Faculty - ₹ 2999

Industry - ₹ 3499

Mr.T.Pravin (+91) 9790035414

(Student/Faculty/Industry)

USD - 100 or ₹ 5999





Conference dates: 26rd & 27th

December 2022

Google Scholar







tinyurl.com/ICMET2022

#### **PERKS**

- Best Presentation for (UG / PG), Research Scholar, Academician & Industry People.
   All the accepted papers will be published in International Journal indexed in Google Scholar, CROSSREF with elSSN & Dol Number Abstract will be published in the Conference Proceedings
   Free Plagiarism Checking
   Exclusive Keynote Session
   Individual Conference Presentation &

- - Conference only/ Poster Presentation

USD - 75 / ₹ 1499

editorglobalconferencehub@gmail.com Mr.M.Saravana Kumar: (+91) 6380524933 www.globalconferencehub.com

First Virtual International Conference on Recent trends in Management, Engineering Technology ICMET 2022, Vidya Vihar Institute of Technology (VVIT), Purnea, Bihar and Global Conference Hub, Coimbatore, 26th - 27th December 2022

# **Contact & Whatsapp Helpline:**

Mr. T. Pravin: 9790035414

Mr. M. Saravana Kumar: 6380524933 Paper submission last Date: 20/12/2022

#### **Registration Fees**

Conference only / Poster Presentation – Rs. 1499 Student - Conference+ publication in CROSSREF DOI, Academia & Google scholar indexed journal – Rs. 2799

Faculty - Conference+ publication in CROSSREF DOI, Academia & Google scholar indexed journal - INR 2999

Foreign Authors -Conference+ publication in CROSSREF & Google scholar indexed journal \$ 100 / Rs. 5999

Certificates will be provided to Participants



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 centre, that imparts quality higher education through the programme in the field of Mechanical Engineering and to meet the changing needs of the society.

#### **DEPARTMENT MISSION:**

The department involves in sustained curricular and co-curricular activities with competent faculty through teaching and research that generates technically capable Mechanical Engineering professionals to serve the society with delight and gratification.

#### **B. E. MECHANICAL ENGINEERING**

# PROGRAM EDUCATIONAL OUTCOMES (PEO's):

PEO 1: Graduates will take up career in manufacturing and design related disciplines.

PEO 2: Graduates will be involved in the execution of Mechanical Engineering projects.

PEO 3: Graduates will take up educational programme in mastering Mechanical

sciences and management studies.

#### PROGRAM OUTCOMES (PO's):

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.
- 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 teamwork:** 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 (PSO's):

- 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.

#### M. E. INDUSTRIAL ENGINEERING

# **PROGRAM EDUCATIONAL OBJECTIVES (PEO's):**

**PEO 1 :** Graduates will be mid to higher level management / engineering professionals with responsibilities in engineering management, data analysis and business operations.

**PEO 2**: Graduates will be engineering professionals, and technology leaders who would manage such functions as plant engineering, production, supply chain and quality management.

**PEO3**: Graduates would function as educators or researchers in academic institutions.

# **PROGRAM OUTCOMES (PO's):**

P01 : An ability to independently carry out research /investigation and development work to solve practical problems.

**P02** : An ability to write and present a substantial technical report/document.

PO3 : Students should be able to demonstrate a degree of mastery over the area as per the specialization of the program. The mastery should be at a level higher than the requirements in the appropriate bachelor program.

PO4 : Apply knowledge and competencies in manufacturing, analytics, supply chain, quality and engineering management.

**P05** : Apply principles of industrial engineering to solve problems in industry.

P06 : An ability to work as part of interdisciplinary teams, communicate effectively, model and design engineering systems optimally.