# Department of Mechanical Engineering

### **Events Conducted:**

# Symposium

The Department of Mechanical Engineering, Kuppam Engineering College conducted a One Day Technical Symposium "VIGHNANA 2K22" on 08th July 2022.

The flow of the event is as follows:

The event started with invocation song, lighting of lamp, followed by welcome speech. The Presidential address was given by Principal and Vice Principal. Our Chief guest Dr. Thangaraju spoke a few words on Emerging trends in various Engineering sectors and importance of innovation, participation of cocurricular events which helps in enhancing the student's skills.

Various Technical and non-Technical events were conducted at designated places. About 250 students of various colleges registered and actively participated in the events.



## **Paper Presentation:**

The technical paper presentation event hosted a team of 40 members from various engineering backgrounds and various institutes like VEC, MIET, MITS, PMC Tech, GCE, Bargur, BIT, Natrampalle. Each team came forward with new ideas, research papers and advancements. Based on content, presentation skills and answering queries, marks were allotted and winners were announced.



### **Technical Quiz:**

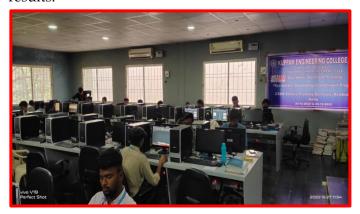
Technical Quiz was conducted in Seminar Hall, which included objective, direct answer and audio visual round. It was very informative and knowledge enriching competition for the participants. A total of 15 teams participated out of which 3 teams were selected as winners.

### **Project Expo:**

A total of 8 teams participated in Project expo from various disciplines. The project evaluation by the panel members was done for all the projects presented by the students. Prizes were distributed for winners.

### **CAD Modeling:**

All Participants were provided with a predefined sketch and have to completer the model using 3D package. Teams should replicate the model from the given sketch with proper dimensions defined in the sketch. Based on the completion and accuracy of assembly, participants were evaluated. Price money was awarded to winners after the announcement of results.



#### **Short Film:**

A Team of 8 participated in the Short film presentation based on the theme "Equal Rights". Based on various factors like Narration, Editing, sound, values and ethics the jury panel evaluated and declared the results.

### **Industrial Visit**

A batch of second, third and Final Year Students of Department of Mechanical Engineering along with two faculty Members visited Shakti Ferro Alloy India Pvt Ltd, Nadimur, Kuppam on 7<sup>th</sup> November 2022.



A batch of second, third and Final Year Students of Department of Mechanical Engineering along with four faculty Members visited Mettur Thermal Power Plant, Mettur on 25<sup>th</sup> November 2022.



### Seminar

Department of Mechanical Engineering organized a one day seminar on "Role of Artificial Intelligence and Machine Learning for Mechanical and Electrical Engineering", students on 18<sup>th</sup> March 2023. The Resource Person is Mr. A M Govind Kumar, Vice President, ZebPay, Crypto/Blockchain Chennai.



### Workshop

Department of Mechanical Engineering organized a one day workshop on "Industry 4.0", on 26th November 2021. The resource person for the workshop is Dr. Amardeepak. M, Professor, Department of Mechanical Engineering, Cambridge Institute of Technology, North Campus, Bangalore.



### Webinar

Department of Mechanical Engineering organized a one day webinar on "Introduction to design and drafting using MEP tools", on 6th March 2023. The resource person for the webinar is Dr. Syed Moazzam Ali, Technical Director, Taiba Engineering Consultants certified by Govt. of A. P & Telangana.



Department of Mechanical Engineering organized a one day webinar on "Research Developments in Composite Material Graphene Oxide Based Polymer Nano Composites", on 18th July 2020. The resource person for the webinar is Dr. Dhamodharan Duraisamy, Assistant Professor in the School of Department of Mechanical Engineering, Xi'an Jiaotong University, P R China.

Department of Mechanical Engineering organized a one-day webinar on "Selection of Materials for Engineering Design", on 24th July 2020. The resource person for the webinar is Mr. Bhaskar Manne, Project Scientist, Indian Institute of Technology, Madras.

Department of Mechanical Engineering organized a one day webinar on "Research Developments in Composite Materials", on 15th August 2020. The resource person for the webinar is Dr. Amardeepak. M., Professor, Department of Mechanical Engineering Cambridge Institute of Technology, North Campus, Bangalore.

Department of Mechanical Engineering organized a one day webinar on "Mendeley Software for Reference Management for Researchers", on 20th August 2020. The resource persons for the webinar are Ms. Purnima B.R and Ms. Tejaswini S, Assistant Professors, in the of Department of Medical Electronics, Ramaiah Institute of Technology, Bangalore.

Department of Mechanical Engineering organized a one day webinar on "Innovative Materials for Automobile Applications", on 5th September 2020. The resource person for the webinar is Dr. Sridhar B S, Assistant Professor, Department of Mechanical Engineering, Ramaiah Institute of Technology, Bangalore.

Department of Mechanical Engineering organized a one day webinar on "Overview and Applications of Additive Manufacturing", on 18th November 2021. The resource person for the webinar is Dr. Sridhar B S, Assistant Professor, Department of Mechanical Engineering, Ramaiah Institute of Technology, Bangalore.

Department of Mechanical Engineering organized a one-day webinar on "Composite Materials and Applications in Aerospace Industry", on 21st November 2021. The resource person for the webinar is Dr. Sunith Babu L, Associate Professor, Department of Mechanical Engineering, Ramaiah Institute of Technology, Bangalore.

Department of Mechanical Engineering organized a one day webinar on "Design for Additive Manufacturing", on 25th November 2021. The resource person for the webinar is Dr. Jaya Christiyan K. G, Assistant Professor, Department of Mechanical Engineering, Ramaiah Institute of Technology, Bangalore.

Department of Mechanical Engineering organized a one day webinar on "Surface Coating and its Applications", on 28th November 2021. The resource person for the webinar is Dr. Shashikala A.R, Associate Professor & HOD, Department of Chemistry, Presidency University, Bangalore.

Department of Mechanical Engineering organized a one-day webinar on "Data analysis & AI prediction Models", on 09th January 2022. The resource person for the webinar is Dr. K Lokesha, Assistant Professor, Department of Mechanical Engineering, Ramaiah Institute of Technology, Bangalore.

## **Faculty Achievements**

## **Gate Qualified**

Mr. S N Nagaraj, Assistant Professor, Department of Mechanical Engineering, has qualified for the Gate examination conducted by IIT Kanpur in 2023.

#### Ph.D Awarded

Dr. Naveen Kumar, Associate Professor, Department of Mechanical Engineering, received his Ph.D. from Visvesvaraya Technological University, Belagavi, on September, 2022.

#### **Elsevier Reviewer**

Dr. Naveen Kumar, Associate Professor, Department of Mechanical Engineering, has been recognized as an Elsevier Reviewer for Materials Today Proceedings, Energy Journals, and the International Journal of Automotive and Mechanical Engineering, University Malaysia Pahang.

## FDP's by Faculties

- 1. Faculty development programme participated by Mr. K.Ganesh from 15/11/2021 to 14/11/2021 (30 days) on "Machine Learning Master Class", organized by Pantech e Learning Pvt Ltd, Chennai.
- 2. Faculty development programme participated by Mr. N. Nagesh from 15/11/2021 to 14/11/2021 (30 days) on "Machine Learning Master Class", organized by Pantech e Learning Pvt Ltd, Chennai.
- 3. Faculty development programme participated by Mr. Naveen Kumar from 12/12/2022 to 16/12/2022 (one week) on "Materials Characterization Techniques", organized by NITTTR, Chandigarh.
- 4. Faculty development programme participated by Mr. Naveen Kumar from 10/10/2022 to 14/10/2022 (one week) on "Advances in Characterization Techniques", organized by Presidency University, Bangalore.
- 5. Faculty development programme participated by Mr. Nagesh N from 18/10/2022 to 22/10/2022(one week) on "Intellectual Property Rights", organized by Intellectual Property Rights Information Centre-Kerala (IPRIC-K).
- 6. Faculty development programme participated by Mr. Naveen Kumar from 23/01/2023 to 27/01/2023 (one week) on "Recent Advancements in Sustainable Energy Storage & Conversion", organized by G. Pulla Reddy Engineering College, Kurnool.
- 7. Faculty development programme participated by Mr. Rajesh S from 14/11/2022 to 18/11/2022 (one week) on "CAD/CAM", organized by NITTTR, Chandigarh.
- 8. Faculty development programme participated by Mr. C. Nawazbasha from 05/12/2022 to 09/12/2022(one week) on "Advanced Technologies for Emerging Research in Mechanical

- **Engineering**", organized by Annamacharya Institute Of Technology & Sciences.
- 9. Faculty development programme participated by Mr. Naveen Kumar from 17/01/2022 to 21/01/2022 (one week) on "Innovation in Materials for Advancement", organized by Anand International College of Engineering, Jaipur.
- 10. Faculty development programme participated by Mr. Nagesh N from 20/09/2021 to 25/09/2021 (six days offline) on "Advanced Research in Nanomaterial and Nanocomposites", organized by PES Institute of Technology & Management, Shivamogga, Karnataka.
- 11. Faculty development programme participated by Mr. C. Nawazbasha from 05/12/2022 to 09/12/2022 (one week) on "Advanced Technologies for Emerging Research in Mechanical Engineering", organized by Annamacharya Institute of Technology & Sciences.
- 12. Faculty development programme participated by Mr. Gopalakrishnan M from 17/01/2022 to 21/01/2022(one week) on "Innovation in Materials for Advancement", organized by Anand International College of Engineering, Jaipur.
- 13. Orientation programme participated by Mr. C. Nawazbasha from 13/01/2022 to 21/01/2022(one week) on "Innovative Practices in Energy Management", organized by Agnel Institute Of Technology & Design at Goa.
- 14. Faculty development programme participated by Mr. Naveen Kumar from 20/09/2021 to 25/09/2021 (six days offline) on "Advanced Research in Nanomaterial and Nanocomposites", organized by PES Institute of Technology & Management, Shivamogga, Karnataka.
- 14. Faculty development programme participated by Mr. R. Bharath from 20/09/2021 to 25/09/2021(six days offline) on "Advanced Research in Nanomaterial and Nanocomposites", organized by PES Institute of Technology & Management, Shivamogga, Karnataka.

#### Webinar

- 1. International Webinar participated by Mr. C. Nawazbasha held 09/10/2021 on "Deep Drawing of Sheet Metal", at Arasu engineering College, Kumbakonam.
- 2. International Webinar participated by Mr. C. Nawazbasha 08/10/2021 on "A One Step Ahead", at Er.Perumal Manimekalai Polytechnic College, Hosur.

#### Seminar

- 1. National level seminar participated by Mr. C. Nawazbasha from 10/11/2022 to 12/11/2022(one week) on "Effective implementation NEP Multidisciplinary Education and Strategies", at Sri Sairam Engineering College, Bengaluru.
- 2. National level seminar participated by Mr. C. Nawazbasha held 26/03/2022 (one day) on "Research Metrics Measuring Your Research Impact", at Nadar Saraswathi College of Engineering and Technology, Theni.

## **Paper Publications**

- 1. Mr. Nagesh N of ME Department published a conference paper titled "Study, Optimization of Cutting Parameters of Non-Ferrous Metal by Turning Operation in Lathe Machine", in International Journal of Scientific Research in Science, Engineering and Technology, ISSN: 2394-4099, PP.446-455.
- 2. Mr. Nagesh N of ME Department published a research paper titled "Vibration measurement on cutting tool under various operating cutting parameters", in International Journal of Design and Manufacturing Technology, ISSN: 0976-6995, Vol. 12, Issue.2, PP.1-7.
- 3. Mr. Nagesh N of ME Department published research paper titled "Modelling and analysis of single point cutting tool using FEM Methods", in Turkish journal of computer and mathematics education, Vol. 12, Issue.13, PP. 7402-7409.

- 4. Mr. Nagesh N of ME Department published a paper titled "Design and development of seam welding for different alloys", in Turkish journal of computer and mathematics education, Vol. 12, Issue.13, PP. 7409-7417.
- 5. Dr. Naveen Kumar of ME Department published a research paper titled "A review on tribological behavior and mechanical properties of Al/ZrO2 metal matrix Nano composites", in Elsevier Materials Today Proceedings, Vol. 38, PP. 2649-2657.
- 6. Dr. Naveen Kumar of ME Department published a research paper titled "Green synthesis of zinc oxide nanoparticles: Mechanical and microstructural characterization of aluminum Nano composites", in Elsevier Materials Today Proceedings, Vol. 38, PP. 3116-3124.
- 7. Dr. Naveen Kumar of ME Department published a research paper titled "Mechanical, micro structural properties and wear characteristics of hybrid aluminum matrix Nano composites", in Elsevier Materials Today Proceedings, Vol. 45, PP. 619-625.
- 8. Dr. Naveen Kumar of ME Department published a research paper titled "Tribological behavior and Micro hardness of Al-Si7.0-0.5Mg Matrix nano composite through Stir casting Technique", in International Journal of Mechanical Engineering and Technology, Vol. 12, Issue.9, PP.13-20.
- 9. Dr. Naveen Kumar of ME Department published a paper titled "Analytical investigation of functionally graded materials plate under mechanical load subjected various boundary conditions", in International Research Journal of Engineering and Technology, ISSN.2395-0072, Vol. 08, Issue.12, PP.1105-1112.
- 10. Dr. Naveen Kumar of ME Department published a paper titled "Hydrodynamics analysis of journal bearings using CFD and FSI techniques", in International Research Journal of Engineering and Technology, ISSN.2395-0072, Vol. 08, Issue.12, PP.1088-1094.

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### **Student Achievements**

Mr. M. Devaraj, Mr. Y. Praveen Kumar, and Mr. V. Ravindra, ME department engineering students, participated in the "Video Making Competition", organized by Adithya College of Engineering,

Madanapalli, on 18th December 2021 and won the second prize.



Mr. M Devaraj and Mr. Y Praveen Kumar of ME department engineering students, participated in the "Yuva Utsava-2022", organized by PVKN Govt. degree college, Chittoor, on 12<sup>th</sup> October 2022 and won the third prize.



Mr. Balasa Munesh, Mr. Y Praveen Kumar and Mr. M Mohan Kumar of ME department engineering students, participated in the "Technical Symposium Electica 2K22", organized by Madanapalli Institute of Technology and Science, Madanapalli, on 03<sup>rd</sup> June 2022 and won the First prize.



Mr. Balasa Munesh, Mr. Y Praveen Kumar and Mr. M Mohan Kumar, S Naveen Kumar, M Praveen Kumar of ME department engineering students, participated in the "ANOKHA 2K22", organized by Adithya College of Engineering, Madanapalli, on 15th June 2022 and won the Second prize.



Mr. Balasa Munesh, Mr. Y Praveen Kumar and and Mr. S Naveen Kumar, of ME department engineering students, participated in the "ANOKHA 2K22", organized by Vemu Institute of Technology, Chittoor, on 17th June 2022 and the won the First prize.



## **Patents**

Mr. Balasa Munesh, of ME department engineering student, registered a patent on "Precision of solar isolation using gear trains", in 2020.

#### **Startups**

Mr. V. Ravindra, of ME department's engineering student, registered a startups on "Sri Enterprises", on 02 March 2023.

### Workshop attended by students

- 1. Mr. Avaulappagari amrush participated in seven day's workshop on "Automotive 2 Wheeler Foundation", at kuppam engineering college, kuppam from 02-02-2021 to 09-02-2021.
- 2. Mr. Avaulappagari amrush participated in seven day's workshop on "Auto 2 wheeler Master", at kuppam engineering college, kuppam from 18-03-2021 to 25-03-2021.
- 3. Mr. Avaulappagari amrush participated in one day webinar on "Future of Electric vehicles", at kuppam engineering college, kuppam on 01-03-2023.
- 4. Mr. Akash C M participated in one day webinar on "Future of Electric vehicles", at kuppam engineering college, kuppam on 01-03-2023.
- 5. Mr. Krishnarjun K J participated in one day webinar on "Future of Electric vehicles", at kuppam engineering college, kuppam on 01-03-2023.
- 6. Mr. S Dhananjaya participated in one day webinar on **"Future of Electric vehicles"**, at kuppam engineering college, kuppam on 01-03-2023.
- 7. Mr. S Sharath Kumar participated in one day webinar on "Future of Electric vehicles", at kuppam engineering college, kuppam on 01-03-2023.
- 8. Mr. Sushern Kumar K S participated in one day webinar on "Career Guidance", at kuppam engineering college, kuppam on 30-03-2022.
- 9. Mr. V Dhanasekhar participated in one day webinar on "Future of Electric vehicles", at kuppam engineering college, kuppam on 01-03-2023.
- 10. Mr. M Devaraj participated in seven day's workshop on "Automotive 2 Wheeler Foundation", at kuppam engineering college, kuppam from 23-02-22 to 05-03-22.

- 11. Mr. S Dhananjaya participated in seven day's workshop **on "Automotive 2 Wheeler - Foundation"**, at kuppam engineering college, kuppam from 20-12-2022 to 31-12-2022.
- 12. Mr. Sk Akbar basha participated in seven day's workshop on "Automotive 2 Wheeler Foundation", at kuppam engineering college, kuppam from 20-12-2022 to 31-12-2022.
- 13. Mr. S Sharath kumar participated in seven day's workshop on "Automotive 2 Wheeler Foundation", at kuppam engineering college, kuppam from 20-12-2022 to 31-12-2022.
- 14. Mr. V Dhanasekhar participated in seven day's workshop on "Automotive 2 Wheeler Foundation", at kuppam engineering college, kuppam from 20-12-2022 to 31-12-2022.
- 15. Mr. A Manoj undergone twenty four days internship on "welding's and JCB engine service", at Rajashekar workshop, V. kota from 10-08-2022 to 03-09-2022.
- 16. Mr. V Narashima undergone twenty four day's internship on "welding's and JCB engine service", at Rajashekar workshop, V. kota from 10-08-2022 to 03-09-2022.
- 17. Mr. V Ravindra has completed sixty days internship on "Machine learning by using python", at Octazen software solutions Pvt.Ltd, Hyderabad from 10-08-2022 to 10-10-2022.

- 18. Mr. S Santhosh has completed sixty days internship on "Machine learning by using python", at Octazen software solutions Pvt.Ltd, Hyderabad from 10-08-2022 to 10-10-2022.
- 19. Mr. S Naveen Kumar has completed sixty days internship **on "Machine learning by using python"**, at Octazen software solutions Pvt.Ltd, Hyderabad from 10-08-2022 to 10-10-2022.
- 20. Mr. C G Maheshbabu has completed sixty days internship on "Machine learning by using python", at Octazen software solutions Pvt.Ltd, Hyderabad from 10-08-2022 to 10-10-2022.
- 21. Mr. M Devaraj has completed sixty days internship on "Machine learning by using python", at Octazen software solutions Pvt.Ltd, Hyderabad from 10-08-2022 to 10-10-2022.
- 22. Mr. R Anandbabu has completed forty five days internship on "Internship on python full stack", at Brain o vision solutions Pvt.Ltd from 13-08-2022 to 28-09-2022.
- 23. Mr. Rayavaram Sathoshkumar has completed forty five days internship on "Internship on python full stack", at Brain o vision solutions Pvt.Ltd from 13-08-2022 to 28-09-2022.