



THE PRODIGY

DEPARTMENT OF MECHANICAL ENGINEERING

NEWSLETTER - JUNE - 2022

Chief Editor :

Dr. K. Raja Narendra Reddy

Professor & Head, MED

Editors-in-charge

Sri S. Anil Kumar

Assistant Professor

Dr. B. Srinivasa Reddy

Assistant Professor

Student Editorial Board

Mr. D. Sathvik Reddy

(IV/IV B.Tech.)

Principal's Message



I feel proud and honour to write this message because this newsletter is the confirmation of the commitment of Mechanical Engineering Department towards the outcome based education which is inline with the vision and mission of the department. I hope that the department will strive further to meliorate the quality of the education and bring laurels to the institute.

Dr. K. Ashoka Reddy

HoD's Message



A newsletter reflects the clear picture of all activities by the Department. It's a matter of great pride and satisfaction for Mechanical Engineering to bring out the Newsletter. I'm confident that this issue of the Mechanical Engineering Department newsletter will shoot a positive signal to all the scholars, faculty and staff. Congratulations to the Editorial Board of this newsletter who have played significant role in negotiating the task. Sincere congratulations to staff members and students for their fruitful efforts during the period.

"Best Wishes"

Dr. K. Raja Narendra Reddy

Student Placements during January to June 2022

Company - TechnipFMC, Hyderabad



AVS Ramanuja Charyulu
B18ME003



P. Bhavana
B18ME053



B. Bindu
B18ME092



Suryadevara Sai Charan
B18ME109



L. Shanmukha Srinivas
B18ME132



Saketi Ravi Teja
B18ME138

Company - Mindtree, Hyderabad



A. Hari Krishna
B19ME203L



B. Harshini
B18ME058



Ch. Bharath
B18ME075



Y. Arun
B18ME100



G. Sandeep
B18ME125



N. Shruthi
B18ME059



Md. AZU Aftab
B18ME101



G. Yeshaswi Reddy
B18ME124



P. Koushik
B18ME065



K. Sai Teja
B18ME127



L. Shiva Krishna
B19ME200L



A. Goutham
B18ME042



B. Anu
B18ME173



Md. Salman
B18ME122

Company - JSW Steel Limited, Bangalore



B. Vamshi Krishna
B18ME167



K. Neeraj
B18ME017



AVS Ramanuja Charyulu
B18ME003



JVS Hitesh
B18ME007



E. Vamshidhar Reddy
B18ME011



G. Sandeep
B18ME125



M. Karthik Yadav
B18ME072

Company - M/s. Design Tribe Pvt. Ltd., Hyderabad



K. Raj Kausal
B18ME027



Ch. Mounika
B19ME183L



G. Sai Shashank
B18ME036



B. Mahesh Kumar
B18ME036



A. Sai Anvesh
B18ME174



B. Vamshi Krishna
B18ME167



Md. Ali Irshad
B18ME063

Company - M/s. Sirpur Paper Mill Ltd., Kaghaznagar

Company - ZEN Q, Hyd.

Company - Green Robot Machinery, Bangalore

Student's Achievements



Ch. Rajeev (B19ME023) has been selected for 39th Senior National Netball Championship 2021-22, which was held in Shri Balaji Sr. Sec. School Kalinga, Haryana during 30th March to 3rd April, 2022 and this team from Telangana secured second place in the Senior National Netball Championship.

Athletics

Mechanical Engineering Students Achievement in Sports as part of 33rd Annual Day Celebrations



M. Kalyan (B18ME121)
Secured gold medal in 200m & bronze medal in 100m running



S. Manoj Kumar (B18ME163), **B. Ramesh** (B21ME144L), **G. Amarnath** (B21ME053), **G. Shekar** (B21ME040)
Secured gold medal in 4 x 100m running



J. Kalyan Kumar (B18ME044), **M. Kalyan** (B18ME121), **Md. Farhan Ahmed** (B18ME135), **M. Chandu** (B19ME055)
Secured bronze medal in 4 x 100m running



S. Manoj Kumar (B18ME163), Secured gold medal in triple jump and bronze medal in 400m Running



B. Ramesh (B21ME144L), Secured gold medal in long jump and silver medal in triple jump



B. Shirisha (B21ME005) Secured gold medal in javelin throw, gold medal in discuss throw and silver medal in short put.

Journals Published by the students during Jan to June-2022

- ❖ **G. Sumithra, B. Sai Kumar, SK. Yunas, T. Srikanth, K. Raja Narendra Reddy**, "Analysis and comparison of mechanical properties of a specimen by using FEA", Environmental science Engineering, February 2022.
- ❖ **Sameer M.D., Reddy B.A., Kumar C.S., Saiteja N. and Dhanush J.**, "Development of Al₂O₃ Nano particulates AA6061-T6 Aluminium Alloy Functionally Graded Composites via Friction Stir Processing: Effect of Tool Pin Profile on Mechanical and Tribological Properties", *Recent Advances in Manufacturing Processes and Systems*, March 2022. https://doi.org/10.1007/978-981-16-7787-8_22
- ❖ **Sameer M.D., Sai Kartheek Reddy B., Amrutha N., Srishma K. and Samantha K.**, "Selection of Optimal EDM Process Parameters for Machining Maraging Steel Using Grey-Fuzzy Relational analysis-An Experimental Approach", *Recent Advances in Manufacturing Processes and Systems*. https://doi.org/10.1007/978-981-16-7787-8_71
- ❖ **V. Pradeep, Anil Kumar Bodukuri, Madeeha Zoufeen.** "Mechanical Characterization of composite material fabricated by friction stir processing technique", *Recent Advances in Manufacturing Processes and Systems*, March 2022

- A.V.S. Ramanuja Charyulu, Srinivasa Reddy Badduri, R. Sa Charan, A. Shiva Charan, Md. Nabeel **"Effect of Stiochiometric Ratios on performance of Proton Exchange Membrane Fuel Cell"** 20th ISME Confrence on Advances in Mechanical Engineering, 19th - 21st May 2022 at Indian Institute of Technology Ropar.
- Nikhitha Modhe, Srinu Gugulothu, Goutham Adulapuri, Ch. Vinay, Tanveer Khan, Vamshi Krishna Pasam, Md. Sameer **"Perfomance Assessment of Vegetable Oil Based Hybrid Nanofluids in Turning of Titanium Alloy using minimum quantity lubrication (MQL) Techniqs "** 20th ISME Confrence on Advances in Mechanical Engineering, 19th - 21st May 2022 at Indian Institute of Technology Ropar.
- K. Vinoothna, K. Sumana, Arun Sharma, Anju Naik, Sai Kumar Gadakary **"Preparation and Characterization on Titanium Dioxide, E-Glass Fyber Reinforced Epoxy based composites"** 20th ISME Confrence on Advances in Mechanical Engineering, 19th - 21st May 2022 at Indian Institute of Technology Ropar.
- Md. Ali Irshad ur Rahman, P. Anitha, Nazrin, G. Praneeth Reddy, Ch. Vamshi Reddy **"Characterisation and fabrication of metal matrix composites using vibration assisted casting"** AICTE Sponsored International Conference On Energy Sustainability (AICTE-ES-2022), 20th-21st May 2022 at KITS Warangal.
- Neeraj K, Raj Kushal K, MD Amaan, K Arun, S Ramesh, K Raja Narendra Reddy, **"Heat transfer enhancement using copper oxide nano fluid"** AICTE Sponsored International Conference On Energy Sustainability (AICTE-ES-2022), 20th-21st May 2022 at KITS Warangal.
- Shada Sushmith, M. Om Prakash, Chintapandu Varshith, JVS Hitesh, Dudapaka Raghupathi, **"Preparation of energy sustainable carbon materials from Arhar shell biomass materials"** AICTE Sponsored International Conference On Energy Sustainability (AICTE-ES-2022), 20th-21st May 2022 at KITS Warangal.
- Shivani Gurrapu, Dr. K. Sridhar, Pendra, Gopichander, Venkat Reddy Gudipelly Dinesh Reddy Sadi, Nalini Dasari, Koushik Pesaru, **"Energy and Exergy based Analysis of a Solar Air Heater With Structural Modifications to the Absorber Surface"** AICTE Sponsored International Conference On Energy Sustainability (AICTE-ES-2022), 20th-21st May 2022 at KITS Warangal.
- P. Bhavana, V. Rajesh, T. Vinay Kumar, K. Sai Tharun Naik, Ayesha, **"Automated solar panel cleaning system using wiper mechanism"** AICTE Sponsored International Conference On Energy Sustainability (AICTE-ES-2022), 20th-21st May 2022 at KITS Warangal.
- R. Anish Sai, Dr.C. Naresh, B. Vinay Prathap, T. Hruthcek Reddy and G.Annamaiah, **"Fabrication and charecterisation of glass fiber reinforced polymer nanocomposite"** AICTE Sponsored International Conference On Energy Sustainability (AICTE-ES-2022), 20th-21st May 2022 at KITS Warangal.
- S. Sai Charan, Dr.G. Srinivasa Rao, G. Aravind, L. Raghu Charan and Ch.Bharath, **"Thermal analysis of solar collectors with and without porous layers with effect of nanofluids and hybrid nano-fluids"** AICTE Sponsored International Conference On Energy Sustainability (AICTE-ES-2022), 20th-21st May 2022 at KITS Warangal.
- Vivek Kudikala, Sunny Manda, Azad Reddy. P, Krishna Kalyan. L, A. Hari Kumar, **"Modeling and Numerical Characterization of Open-Cell Metallic Foam"** AICTE Sponsored International Conference On Energy Sustainability (AICTE-ES-2022), 20th-21st May 2022 at KITS Warangal.
- B. Raghu, B. Shyam Kumar, K. Srikanth, V. Vishnu, Ch. Naresh, **"Experimental Investigation on EDM Characteristics of Nickel based super Alloy"** AICTE Sponsored International Conference On Energy Sustainability (AICTE-ES-2022), 20th-21st May 2022 at KITS Warangal.
- Mohammed Farhan Ahmed, Dr. G. Srinivasa Rao, Raju V.B, Pingili Sindhuja Reddy, Putta Surya Teja Hatkar Rahul, **"Combined Convection Heat Transfer Over Cylindrical and Spherical Object with and without Porous Medium in Presence of Nanofluids"** AICTE Sponsored International Conference On Energy Sustainability (AICTE-ES-2022), 20th-21st May 2022 at KITS Warangal.
- E. Vamshidhar Reddy, G. Sai Shashank, M. Balaji, M. Hrithik, Afzalunnisa, P. Sreedhar, **"Surface modification through friction stir process tool and their property analysis"** AICTE Sponsored International Conference On Energy Sustainability (AICTE-ES-2022), 20th-21st May 2022 at KITS Warangal.
- D. Ramya Sri, Jaswanth Singh Thakur, G. Rushitha, K. Shiva Teja, J. Laxman, T. Akhila, **"Modeling of EDM process parameters using response surface methodology"** AICTE Sponsored International Conference On Energy Sustainability (AICTE-ES-2022), 20th-21st May 2022 at KITS Warangal.
- Chennaboina Mounika, Sri. S. Anil Kumar, Abhay Lingayat, Aku Shailaja, Sowdamalla Nithin Kumar, Mohammed Zahid, **"Numerical Analysis of Circular Duct Solar Air Heater"** AICTE Sponsored International Conference On Energy Sustainability (AICTE-ES-2022), 20th-21st May 2022 at KITS Warangal.

- T. Srikanth, G. Ganesh Kumar, Karthik Iyer, L. Shanmukha Srinivas, T. Vishnu, and T. Sowmya, "**Design and Fabrication of Heat Exchanger for Power Generation**" AICTE Sponsored International Conference On Energy Sustainability (AICTE-ES-2022), 20th-21st May 2022 at KITS Warangal.
- G. Vamshi, Dr. K. Raja Narendar Reddy, V. Srikanth, D. Ajay Kumar, D. Aditya K. Suhas, Dr. D. K. Nageswar Rao and K. Reiki Tanaya, "**Mechanical Characterization of Tamarind Fiber Reinforced Guar Gum**" AICTE Sponsored International Conference On Energy Sustainability (AICTE-ES-2022), 20th-21st May 2022 at KITS Warangal.
- Md. Ali Irshad ur Rahman, P. Anitha, Nazrin, G. Praneeth Reddy, Ch. Vamshi Reddy "**Characterisation and Fabrication of Metal Matrix Composites using Vibration Assisted Casting**" AICTE Sponsored International Conference On Energy Sustainability (AICTE-ES-2022), 20th-21st May 2022 at KITS Warangal.
- Neeraj K, Raj Kushal K, MD Amaan, K. Arun, S. Ramesh, K. Raja Narendra Reddy, "**Heat Transfer Enhancement using Copper Oxide Nano Fluid**" AICTE Sponsored International Conference On Energy Sustainability (AICTE-ES-2022), 20th-21st May 2022 at KITS Warangal.
- Shada Sushmith, M. Om Prakash, Chintapandu Varshith, JVS Hitesh, Dudapaka Raghupathi, "**Preparation of Energy Sustainable Carbon Materials from Arhar shell Biomass Materials**" AICTE Sponsored International Conference On Energy Sustainability (AICTE-ES-2022), 20th-21st May 2022 at KITS Warangal.
- Shivani Gurrapu, Dr. K. Sridhar, Pendra, Gopichander, Venkat Reddy Gudipelly Dinesh Reddy Sadi, Nalini Dasari, Koushik Pesaru, "**Energy and Exergy based Analysis of a Solar Air Heater with Structural Modifications to the Absorber Surface**" AICTE Sponsored International Conference On Energy Sustainability (AICTE-ES-2022), 20th-21st May 2022 at KITS Warangal.
- P. Bhavana, V. Rajesh, T. Vinay Kumar, K. Sai Tharun Naik, Ayesha, "**Automated Solar Panel Cleaning System using Wiper Mechanism**" AICTE Sponsored International Conference On Energy Sustainability (AICTE-ES-2022), 20th-21st May 2022 at KITS Warangal.
- R. Anish Sai, Dr. C. Naresh, B. Vinay Prathap, T. Hruthiek Reddy and G. Annamaiah, "**Fabrication and Charecterisation of Glass Fiber Reinforced Polymer Nanocomposite**" AICTE Sponsored International Conference On Energy Sustainability (AICTE-ES-2022), 20th-21st May 2022 at KITS Warangal.
- S. Sai Charan, Dr. G. Srinivasa Rao, G. Aravind, L. Raghu Charan and Ch.Bharath, "**Thermal Analysis of Solar Collectors with and without Porous layers with effect of Nanofluids and Hybrid Nano-Fluids**" AICTE Sponsored International Conference On Energy Sustainability (AICTE-ES-2022), 20th-21st May 2022 at KITS Warangal.
- Vivek Kudikala, Sunny Manda, Azad Reddy. P, Krishna Kalyan. L, A. Hari Kumar, "**Modeling and Numerical Characterization of Open-Cell Metallic Foam**" AICTE Sponsored International Conference On Energy Sustainability (AICTE-ES-2022), 20th-21st May 2022 at KITS Warangal.
- B. Raghu, B. Shyam Kumar, K. Srikanth, V. Vishnu, Ch. Naresh, "**Experimental Investigation on EDM Characteristics of Nickel based Super Alloy**" AICTE Sponsored International Conference On Energy Sustainability (AICTE-ES-2022), 20th-21st May 2022 at KITS Warangal.
- Mohammed Farhan Ahmed, Dr. G. Srinivasa Rao, Raju V.B, Pingili Sindhuja Reddy, Putta Surya Teja Hatkar Rahul, "**Combined Convection Heat Transfer over Cylindrical and Spherical object with and without Porous Medium in Presence of Nano-Fluids**" AICTE Sponsored International Conference On Energy Sustainability (AICTE-ES-2022), 20th-21st May 2022 at KITS Warangal.
- E. Vamshidhar Reddy, G. Sai Shashank, M. Balaji, M. Hrithik, Afzalunnisa, P. Sreedhar, "**Surface Modification through Friction Stir Process Tool and their Property Analysis**" AICTE Sponsored International Conference On Energy Sustainability (AICTE-ES-2022), 20th-21st May 2022 at KITS Warangal.
- D. Ramya Sri, Jaswanth Singh Thakur, G. Rushitha, K. Shiva Teja, J. Laxman, T. Akhila, "**Modeling of EDM Process Parameters using Response Surface Methodology**" AICTE Sponsored International Conference On Energy Sustainability (AICTE-ES-2022), 20th-21st May 2022 at KITS Warangal.
- Chennaboina Mounika, Sri. S. Anil Kumar, Abhay Lingayat, Aku Shailaja, Sowdamalla Nithin Kumar, Mohammed Zahid, "**Numerical Analysis of Circular Duct Solar Air Heater**" AICTE Sponsored International Conference On Energy Sustainability (AICTE-ES-2022), 20th-21st May 2022 at KITS Warangal.
- T. Srikanth, G. Ganesh Kumar, Karthik Iyer, L. Shanmukha Srinivas, T. Vishnu and T. Sowmya, "**Design and Fabrication of Heat Exchanger For Power Generation**" AICTE Sponsored International Conference On Energy Sustainability (AICTE-ES-2022), 20th-21st May 2022 at KITS Warangal.
- G. Vamshi, Dr. K. Raja Narendar Reddy, V. Srikanth, D. Ajay Kumar, D. Aditya K. Suhas, Dr. D.K. Nageswar Rao and K. Reiki Tanaya, "**Mechanical Characterization of Tamarind Fiber Reinforced Guar Gum**" AICTE Sponsored International Conference On Energy Sustainability (AICTE-ES-2022), 20th-21st May 2022 at KITS Warangal.

- Ramya Maddi, Kireeti Peddapatlolla, Pradeep Mukkera, Bhanu Kiran Akuthota, Devaraju Aruri, Krishna Kishore Mugada, Prasanna V, **"Fabrication and Characterization of Al/(ZrO₂+B₄C) surface nano composites via friction stir processing"** AICTE Sponsored International Conference On Energy Sustainability (AICTE-ES-2022), 20th-21st May 2022 at KITS Warangal.
- Kadivendi Swetha P. Prabhakara Rao, Dara Hanmitha, Shaik. Sohail, **"Fabrication & Characterization of Al 2014 Metal Matrix Composite through Frequency Induction Melting"** AICTE Sponsored International Conference On Energy Sustainability (AICTE-ES-2022), 20th-21st May 2022 at KITS Warangal.
- D. Sathvik Reddy, G. Vinod Kumar, M.A.Z.Aftab, K. Ashritha and D. Rahul, **"Design and fabrication of solar drying systems"** AICTE Sponsored International Conference On Energy Sustainability (AICTE-ES-2022), 20th-21st May 2022 at KITS Warangal.
- Jaswanth Singh Thakur, J. Laxman, K. Eswaraiah, D. Ramya Sree, **"Optimization of EDM Parameters Using Response Surface Methodology"** AICTE Sponsored International Conference On Energy Sustainability (AICTE-ES-2022), 20th-21st May 2022 at KITS Warangal.
- R. Rakesh, Srinivasa Reddy Badduri, B. Naveen, M. Vinay, A. Sai Kiran, **"Effect of Perforated current collectors on the performance of the passive Direct Methanol Fuel Cell"** AICTE Sponsored International Conference On Energy Sustainability (AICTE-ES-2022), 20th-21st May 2022 at KITS Warangal.
- Mohammed Hafeez, M Anil Kumar, Dr. P. S. Srinivasa Murthy, **"Design & Analysis of an Automotive Radiator for an Enhanced Liquid Cooling System"** AICTE Sponsored International Conference On Energy Sustainability (AICTE-ES-2022), 20th-21st May 2022 at KITS Warangal.
- V. Ritwik, P. Prabhakara Rao, B. Balakrishna and Mohd Shamsheer, **"Some Studies on Role & Impact of 3D Printing Technologies in Casting"** AICTE Sponsored International Conference On Energy Sustainability (AICTE-ES-2022), 20th-21st May 2022 at KITS Warangal.
- M. Vinay, Dr. E. Ramesh, Prabodh Kumar Pandey, M.Pavan Raj, M. Nischith, M. Rajkumar, **"Three-Dimensional Numerical Simulation of Rotating Ribbed Duct"** AICTE Sponsored International Conference On Energy Sustainability (AICTE-ES-2022), 20th-21st May 2022 at KITS Warangal.
- A.V.S. Ramanuja Charyulu, Srinivasa Reddy Badduri, R. Sa Charan, A. Shiva Charan, Md. Nabeel, A. Dhanunjay Kumar, **"Performance Evaluation of Miniature Proton Exchange Membrane Fuel Cell using Serpentine Flow Channel Configuration"** AICTE Sponsored International Conference On Energy Sustainability (AICTE-ES-2022), 20th-21st May 2022 at KITS Warangal.
- Mamidala Yugendher Reddy, Karuka Raja Narendra Reddy, Vallala Srikanth, Kakkerla Keerthana, Jatoth Kalyan Kumar, Nathi Rahul, Dr. D.K. Nageswar Rao, and K. Reiki Tanaya, **"Effect of Chemical Treatment of Reinforcement on the Dielectric Properties of Kondagogu Gum Composites"** AICTE Sponsored International Conference On Energy Sustainability (AICTE-ES-2022), 20th-21st May 2022 at KITS Warangal.
- K. Santhosh, Challa Karunakar, M. Sravani, N. Bharath, A. Sanjay, M. Om Prakash, **"Mechanical and Morphological Studies of Jute Cellulose Reinforced Composites"** AICTE Sponsored International Conference On Energy Sustainability (AICTE-ES-2022), 20th-21st May 2022 at KITS Warangal.
- Sunil Kumar Pulluru, O. Mounika, B. Ramya, Manoj Kumar, B. Abhinay, Sameer MD, Anil Kumar Birru, **"Experimental Investigation of Electric Discharge Machining Parameter Effects on Aluminium Metal Matrix Composites Using RSM Approach"** AICTE Sponsored International Conference On Energy Sustainability (AICTE-ES-2022), 20th-21st May 2022 at KITS Warangal.
- V Yashwanth, Dr. A. Deva Raju, K. Murahari, P Thilak Rao, M Arun Teja and G Manivarma, **"Fabrication and Characterisation of Shape Memory Polymer Materials"** AICTE Sponsored International Conference On Energy Sustainability (AICTE-ES-2022), 20th-21st May 2022 at KITS Warangal.
- Kaushik Mandaloju, I Prashanth, E Shiva Preetham, B V Sai Prudhvi, P. Prabhakara Rao, Saikumar Gadakary, **"Preparation and Characterization of Aluminium Metal Matrix Composites"** AICTE Sponsored International Conference On Energy Sustainability (AICTE-ES-2022), 20th-21st May 2022 at KITS Warangal.
- N. Shruthi, Md. Sufiyan, K. Sai Suhas Reddy, Ch. Shiva Manikanta and MD. Sameer and J. Dhanush, **"An Experimental Investigations on the Friction Stir Welded AZ91 Magnesium 465 Alloy Reinforced with Al₂O₃ Nanoparticles"** AICTE Sponsored International Conference On Energy Sustainability (AICTE-ES-2022), 20th-21st May 2022 at KITS Warangal.
- D. Akhila, G. Sandeep, Md Aamir Sohail Khan, K. Navneeth Kumar, P. Srikanth, **"Some Experimental Studies on Micro-EDM of Titanium Based Alloy"** AICTE Sponsored International Conference On Energy Sustainability (AICTE-ES-2022), 20th-21st May 2022 at KITS Warangal.

Journals published by the Faculty during Jan to June - 2022

- ❖ Om Prakash Minugu and Shakuntala Ojha, "Study of environmental behavior and its effect on solid particle erosion behavior of hierarchical porous activated carbon-epoxy composite", polymer composites, January 2022, DOI: 10.1002/pc.26539
- ❖ Shakuntala Ojha and M. Om Prakash, "Rheology of Epoxy/Natural Fiber Composites", Epoxy/Fiber Composites. February 2022. DOI: 10.1007/978-981-15-8141-0_25-1.
- ❖ Shakuntala Ojha, "Evaluation of abrasive wear of Bio-waste silica/carbon particulate epoxy composite", Environmental Science Engineering, February 2022.
- ❖ G. Sumithra, B. Sai Kumar, SK. Yunas, T. Srikanth, K. Raja Narender Reddy, "Analysis and comparison of mechanical properties of a specimen by using FEA", Environmental science Engineering, February 2022.
- ❖ Sameer M.D., Reddy B.A., Kumar C.S., Saiteja N. and Dhanush J., "Development of Al₂O₃ Nano particulates AA6061-T6 Aluminium Alloy Functionally Graded Composites via Friction Stir Processing: Effect of Tool Pin Profile on Mechanical and Tribological Properties", Recent Advances in Manufacturing Processes and Systems, March 2022. https://doi.org/10.1007/978-981-16-7787-8_22
- ❖ Sameer M.D., Sai Kartheek Reddy B., Amrutha N., Srishma K. and Samantha K. "Selection of Optimal EDM Process Parameters for Machining Maraging Steel Using Grey-Fuzzy Relational analysis-An Experimental Approach", Recent Advances in Manufacturing Processes and Systems. https://doi.org/10.1007/978-981-16-7787-8_71
- ❖ V. Pradeep, Anil Kumar Bodukuri, Madeeha Zoufeen. "Mechanical Characterization of composite material fabricated by friction stir processing technique", Recent Advances in Manufacturing Processes and Systems, March 2022
- ❖ Om Prakash Minugu, Shakuntala Ojha, "Effect of Biomass-Biochar content on the erosion wear performance of Biochar epoxy composites", Polymer Composites, March 2022. DOI : 10.1002/pc.26610
- ❖ Shakuntala Ojha "Erosion Wear Characteristics of Step-wise Layered Polymer Composite Materials by Silica Sand Particles" Journal of Materials: Design and Applications, April 2022
- ❖ Shakuntala Ojha "A comparison of the effect of Nano clay addition on micro structures and mechanical properties of Epoxy and Polyester Reinforced Glass/Sisal hybrid polymer composites" Polymer Composites, April 2022
- ❖ Shakuntala Ojha, V. Pranay, G. Raghavendra, G. Sumithra, P. Divya "Evaluation of Abrasive wear of Bio-Waste based Silica/Carbon particulate Epoxy composites" Advances in Chemical, Bio and Environmental Engineering, May 2022.
- ❖ Shakuntala Ojha, K. Rakesh, P. Subhash Chandrabose, G. Raghavendra, B. Anji Reddy "Over view of Gel casted fused Silica Ceramics" Advances in Chemical, Bio and Environmental Engineering, May 2022.
- ❖ G. Sumithra, B. Saikumar, Sk. Yunas, T. Srikanth, K. Raja Narender Reddy, "Analysis and Comparison of Mechanical Properties of a Specimen by Using FEA" Environmental Science and Engineering, pp 481-504, 12 May 2022.

Papers Presented by the faculty in Conferences during Jan to June-2022

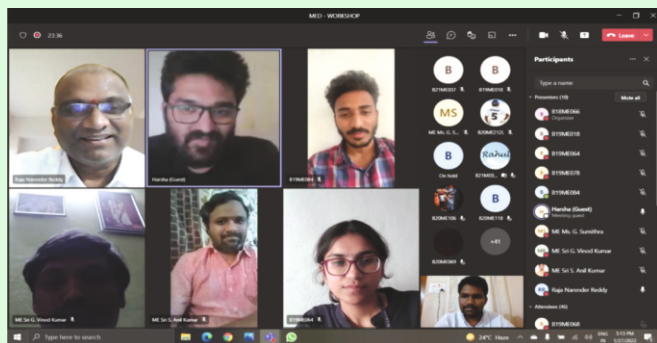
- ❖ PSS Murthy, "Influence of Privatization on Higher Education in India", International Conference on Higher Education, Kakatiya University, Warangal, 20-21 March 2022.
- ❖ U. Shrinivas Balraj, "Impact of Cooperative Group Learning in Tutorials for Imparting Effective Problem-Solving, Team Work and Communication Skills", International Conference on Higher Education, Kakatiya University, Warangal, 21st March 2022.
- ❖ MD Sameer and Pabba Srikanth "Effect of addition of B₄C and Al₂O₃ reinforcement nanoparticles on properties of aluminium metal matrix composites fabricated via stir casting route" AICTE Sponsored International Conference On Energy Sustainability (AICTE-ES-2022), 20th-21st May 2022 at KITS Warangal.
- ❖ P.S.S. Murthy; A. Satyadevi, A. Gopala Krishna, "Genetic algorithm based mass distribution models for minimizing shaking effects in a spatial mechanism" AICTE Sponsored International Conference On Energy Sustainability (AICTE-ES-2022), 20th-21st May 2022 at KITS Warangal.
- ❖ P.S.S. Murthy, V. Rakesh, D. Mahesh Chandra, I. Shiva Prasad, B. Anu, J. Tharun, "Design and Analysis of Composite Propeller Shaft" AICTE Sponsored International Conference On Energy Sustainability (AICTE-ES-2022), 20th-21st May 2022 at KITS Warangal.
- ❖ Smt. P. Anitha, Ms. G. Sumithra, Lokini Aravind, "Design and Manufacturing of Human Bone on 3D Printer" AICTE Sponsored International Conference On Energy Sustainability (AICTE-ES-2022), 20th-21st May 2022 at KITS Warangal.
- ❖ U. Shrinivas Balraj, Abheejith Malge, V. Prasanna, B. Saikumar, S. Khadeer, P. Charan, B. Saidulu, "Effect of Thermo-Electrical Energy Parameters on Material Removal Rate and Tool Wear Rate in EDM of Magnesium Alloy - ZE41 using Taguchi's L27 Orthogonal Array" AICTE Sponsored International Conference On Energy Sustainability (AICTE-ES-2022), 20th-21st May 2022 at KITS Warangal.
- ❖ V. Rakesh, Ramya Sri, Eshwar, Nethaji, "Design and Fabrication of Attachable Wheelchair Automator" AICTE Sponsored International Conference On Energy Sustainability (AICTE-ES-2022), 20th-21st May 2022 at KITS Warangal.
- ❖ P. Sreedhar, D. Laxman, Vikas, K. Sai Teja, D. Vishwa Teja, S. Imran, "Optimization of friction surfacing process parameters of aa3003 alloy coating over mild steel substrate" AICTE Sponsored International Conference On Energy Sustainability (AICTE-ES-2022), 20th-21st May 2022 at KITS Warangal.

- ❖ **D. Sammaiah, B. Bindu, P. Sharon Shirley, M. Adithya, MD. Haseeb Akhtar, "Design and analysis of vertical axis wind mill"** AICTE Sponsored International Conference On Energy Sustainability (AICTE-ES-2022), 20th-21st May 2022 at KITS Warangal.
- ❖ **Ch. Karunakar, Y. Sai Sree, P. Kaveri, P. Akhil Teja, V. Sri Kiran, B. Mahesh Kumar, "Fabrication and Characterization of Hybrid Cellulose Composites"** AICTE Sponsored International Conference On Energy Sustainability (AICTE-ES-2022), 20th-21st May 2022 at KITS Warangal.
- ❖ **S. Chandramouli, K. Eswaraiyah, B. Gayathri Kavya Sree, G. Yeshaswi Reddy, S. Viplav Nandan and V. Nitish, "Analysis and Optimization of EDM parameters using Response Surface Methodology"** AICTE Sponsored International Conference On Energy Sustainability (AICTE-ES-2022), 20th-21st May 2022 at KITS Warangal.
- ❖ **P. Divya, K. Kishor Kumar, K. Ashish, K. Shanthan Rao, N. Sai kiran, Syed Abdul Ahad, "Evaluation of Wear Properties of Kenaf and Banana Fiber Reinforced Hybrid Composites"** AICTE Sponsored International Conference On Energy Sustainability (AICTE-ES-2022), 20th-21st May 2022 at KITS Warangal.
- ❖ **Dr. G. Ganesh Kumar, K. Sridhar, "Numerical Studies on combined conduction and convection through Perforated Fins"** AICTE Sponsored International Conference On Energy Sustainability (AICTE-ES-2022), 20th-21st May 2022 at KITS Warangal.
- ❖ **S. Anil Kumar, Abhay Lingayat, Martha Praneesha, Kadari Vivek, Yama Sai Chandra, Addala Sai Anvesh, "Numerical Analysis of Triangular Channel Solar Air Heater"** AICTE Sponsored International Conference On Energy Sustainability (AICTE-ES-2022), 20th-21st May 2022 at KITS Warangal.
- ❖ **G. Ganesh Kumar, K. Sridhar, "Numerical Studies on Effect of an Angle of Attack on Bow Shock 508"** AICTE Sponsored International Conference On Energy Sustainability (AICTE-ES-2022), 20th-21st May 2022 at KITS Warangal.
- ❖ **P. Divya, K. Kishor Kumar, Sangala Vamshi Krishna, "Evaluation of Elastic and Impact Behaviour of Short Hybrid Natural Fiber Reinforced Composites"** AICTE Sponsored International Conference On Energy Sustainability (AICTE-ES-2022), 20th-21st May 2022 at KITS Warangal.

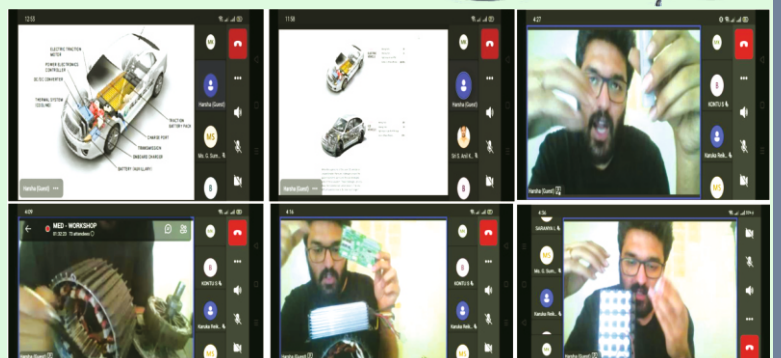
As part of Sumshodhini'21, Mechanical Engineering Students Association (MESA) conducted several technical events as follows.

Workshop on 'BUILDING AN ELECTRIC VEHICLE' - BY UTON ENERGIA

Electric Vehicles: An electric vehicle (EV) is one that operates on an electric motor, instead of an internal-combustion engine that generates power by burning a mix of fuel and gases. Therefore, such a vehicle is seen as a possible replacement of current-generation automobiles, in order to reduce rising pollution, global warming, depleting natural resources, etc.



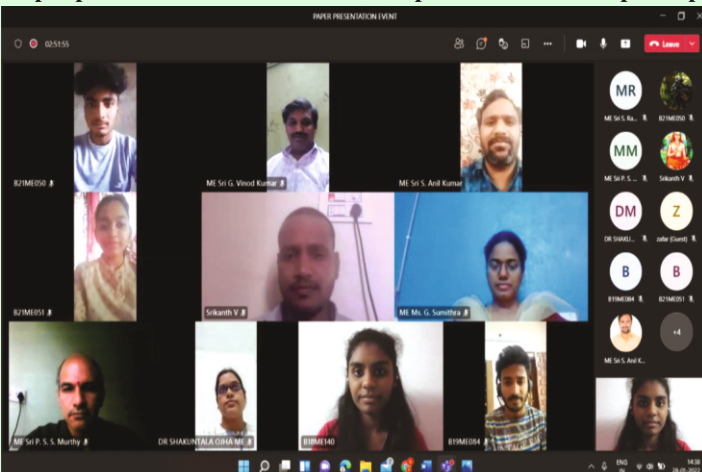
Mr. K. Harshavardhan, Founder & CEO, UTON ENERGIA, Hyderabad, Speaking at inauguration of Workshop "Building an Electric Building Vehicle" as a part of Sumshodhini'21 on 27th January-2022



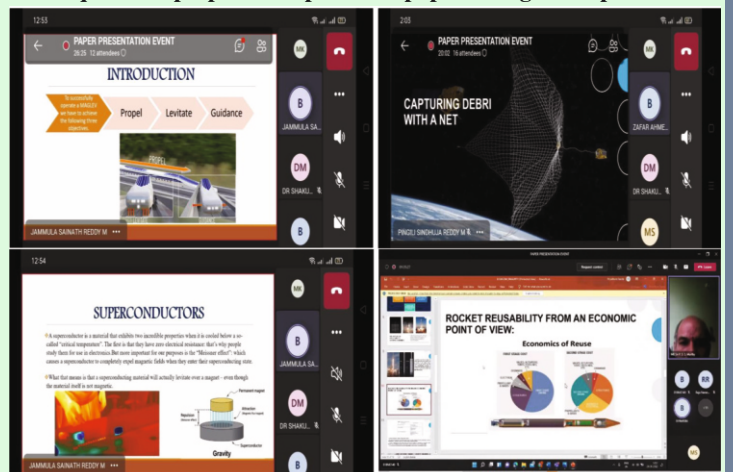
Mr. K. Harshavardhan, discussing the working principles of various components of electrical vehicle such as D.C motor, intelligent control board, battery, battery bank etc.

PAPER PRESENTATION

Paper presentation is an individual competition where each participant is required to prepare and present a paper on a given topic or area.



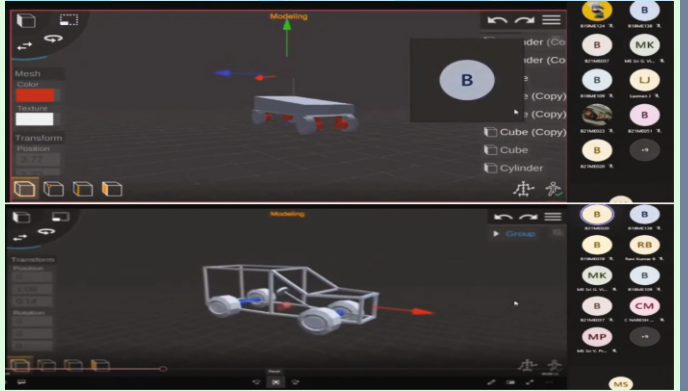
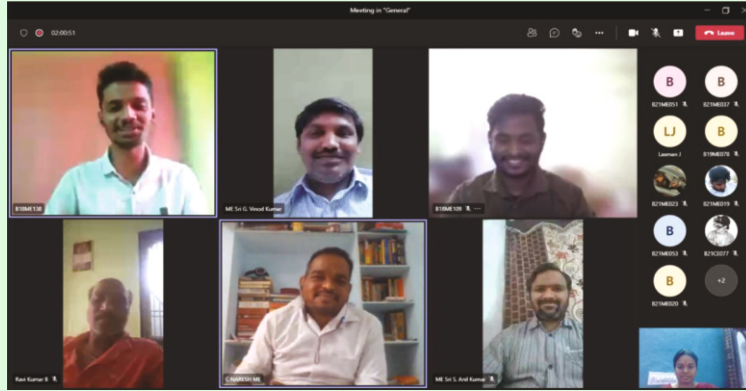
MESA faculty In-charges, faculty mentors, student organizers and participants during the paper presentation Event as a part of Sumshodhini'21 on 27th -29th January-2022



Students explored the content with respect to the innovative technologies like magnetic levitation for propulsion, super-conductors, reusable rockets etc.

ROBO RACE

In this event, participants design robots with necessary requirements and prepare a CAD model.



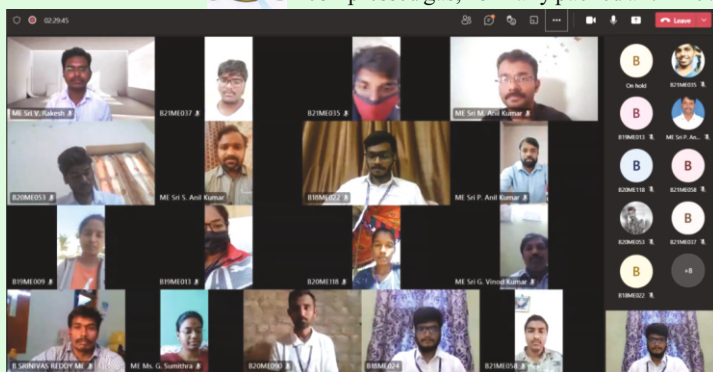
MESA faculty In-charges, faculty mentors, student organizers and the participants during the robo race events as a part of Sumshodhini'21 on 27th -29th January-2022

Students participation in the robo race event, students as explored their models done using the modeling software during the event conduction

ROCKETRIX



A water rocket is a kind of model rocket involving water as its response mass. The water is constrained out by a compressed gas, normally packed air. Like all rocket motors, it works on the rule of Newton's third law of movement.



MESA faculty In-charges, faculty mentors, student organizers and the participants during the rocketrix event as a part of Sumshodhini'21 on 27th -29th January-2022

Students participation in the rocketrix event, students were tested by posting question on the are dynamics, rocket propulsion and other mechanical engineering subject.

ROBO STRIKER

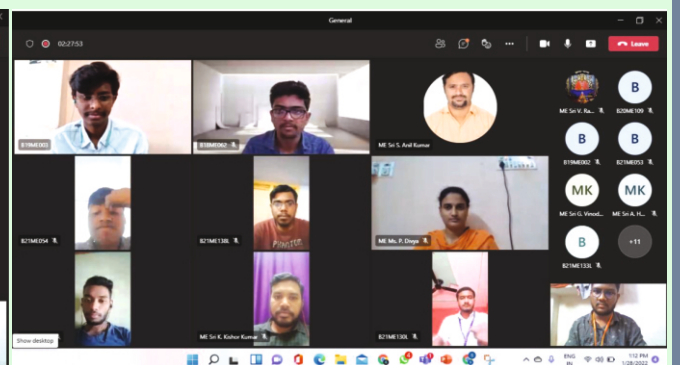
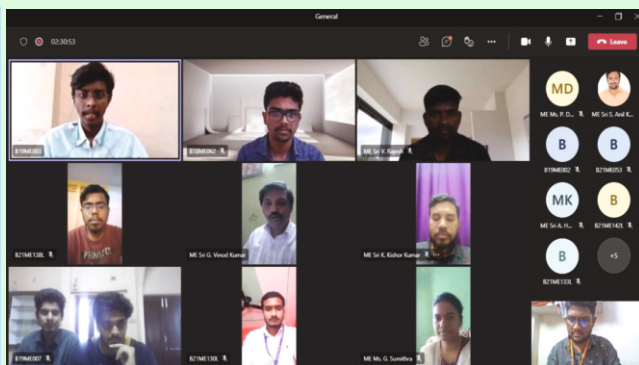


The Robo Striker event conducted consists of two rounds based upon the individual scoring the winners are decided. The concept keeping two rounds is to students get a strong base on public speaking and sparking communication skills. And from the soccer game play the communication, understanding one among for each other.



MESA faculty In-charges, faculty mentors, student organizers and the participants during the robo striker event as a part of Sumshodhini'21 on 27th-29th January-2022

QUIZOHILIC



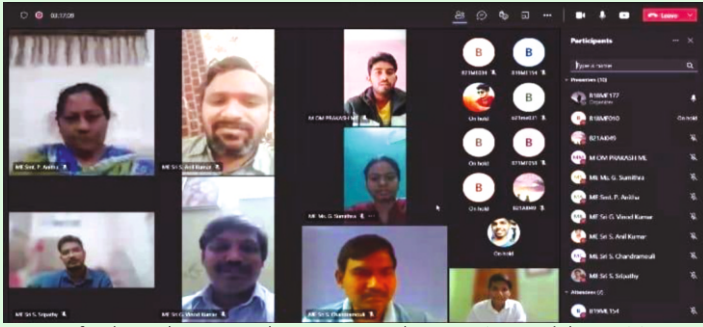
MESA faculty In-charges, faculty mentors, student organizers and the participants during the quizohilic event as a part of Sumshodhini'21 on 27th -29th January-2022

Students participation in the quizohilic event, students were tested by posting question on the screen with new and current technologies

ROBOWAR



Aim of this event is to design a wired or wireless manual robot with weapons that can participate and compete with the opponent robot in a war.

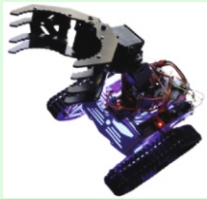


MESA faculty In-charges, Faculty Mentors, Student organizers and the participants during the Robo War Event as a part of Sumshodhini'21 on 27th-29th January-2022

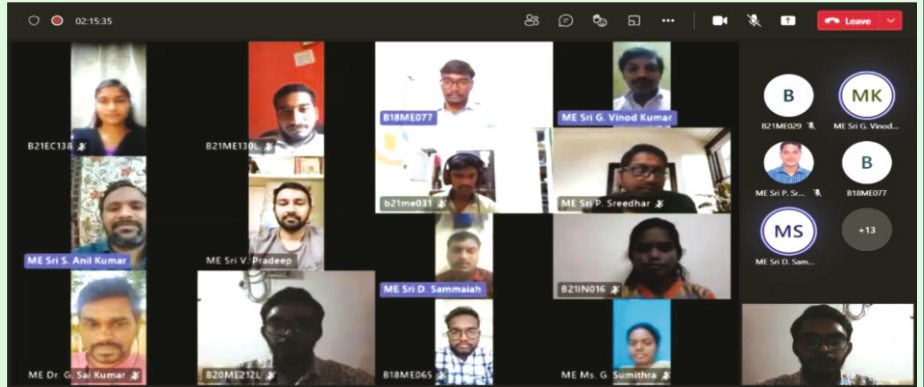


Students participation in the Robo War event during 27 -29th Jan'22

POWER LIFTING RALLY



MESA faculty In-charges, Faculty Mentors, Student organizers and the participants during the Power Lifting Rally Event as a part of Sumshodhini'21 on 27th - 29th January-2022



Mechanical Engineering Students Association (MESA) Activities



Debate conducted on "Combustion Vehicles Vs Electric Vehicles" by MESA Students on 8th Feb, 2022



"Just A Minute (JAM)", conducted by MESA Students on 15th Feb'2022



Expert talk on "Insights of Research Article Writing" by Dr. M. Om Prakash, Assistant Professor of ME on 22nd Feb' 2022



A technical session on "Knowledge, Skills, Qualities and Abilities gained during industrial visits & STTP" by III year B.Tech. students and shared their experience on 12-04-2022.



A technical session on "Insights on Information and Hands -on experience acquired during industrial visits & STTP" by III year B.Tech. students and shared their experience on 19-04-2022.



Interactive Session on "how to Crack The Core - Insights on recruitment procedure of JSW steal" by A.V.S. Ramanuja Charyulu and shared his experience on 26-04-2022



Expert talk on "CFD and its applications in Mechanical Engineering" by Dr. E. Ramesh, Asst. Professor of ME, organized by MESA on 08th March 2022



A Technical event on "Automotive Quiz" organized by MESA on 22nd March 2022



Group discussion on "Mechanical Engineering - Profession for Intelligent People" organized by MESA on 29th March 2022.

Industry Connect Lecture Series



Expert talk on "Role of AutoCAD in moulding Industry" by Bollam Kalinga Rao, Mold-Tech Technologies, Hyderabad organized by MESA Students on 08th March 2022



Certificate of Appreciation

Certificate of Appreciation presented to **T. Vishnu** and **Teja** for effective live streaming of NBA Tire-I Pear Team visit during November 11-12, 2021 at KITSW



Industrial Visit for the students during Jan to June 2022

As a part of curriculum, the Department of Mechanical Engineering arranged an industrial visit for students. The main objective of the visit is to provide a technical exposure to the students about the manufacturing process and technology and provides functional opportunity in different sectors which help them to combine the theoretical knowledge with industrial knowledge. Industrial visits provide an excellent opportunity for the students to interact with industries and know more about industrial environment.



Mechanical Engineering students at "Gayathri Sugar Ltd., Kamareddy", on 26-Feb-2022



Sugar Cane Evaporating Process in Evaporators Gayathri Sugar Ltd., Kamareddy



Sugar Cane Crushing Mechanism in Gayathri Sugar Ltd., Kamareddy



As a part of curriculum, the Mechanical Engineering students visited two industries i.e. Vasantha Tool Crafts Pvt Ltd., Balanagar, Hyderabad & Prathiraj Metal Masters Pvt. Ltd., IDA Charlapally, Hyderabad on 26-03-2022 (Saturday). The main objective of the industrial visit is to provide a technical exposure to the students about the manufacturing process and technology and provides functional opportunity in different sectors which help them to combine the theoretical knowledge with industrial knowledge. Industrial visits provide an excellent opportunity for the students to interact with industries and know more about industrial environment.



Industrial Tour to Prathiraj Metal Masters Pvt. Ltd & Vasantha Tool Crafts Pvt. Ltd start from KITSW



Students & Faculty with Sri A. Dayanand Reddy garu, Founder & Managing Director of Vasantha Tool Crafts Pvt. Ltd.,



Students & Faculty with Sri Ch. Sridhar Reddy garu Board Members & Director of Prathiraj Metal Masters Pvt. Ltd., IDA Charlapally, Hyderabad

Expert Lectures delivered by resource persons from reputed industries/ institutions/R&D Centers

Dr. T Ram Prabhu, Scientist 'E', DRDO Joint Director, Delivered a Lecture on "Building Research Culture- PhD scope and Funding Research Proposals", 2nd February 2022.

Training Programmes for Students during Jan to June 2022



VI Semester B. Tech (ME) students attended a short term training programme on Mechatronics, PLC Programming and IoT Applications organized by Siemens Center of Excellence, NIT Warangal from 7th-8th April 2022.



A short term training programme on "3D Printing" organized by Smt. G. Sumithra, Assistant Professor, MED for the students to improve the knowledge and modeling skills using techniques of 3-D printing on 25th April 2022

A short term training programme on "AutoCAD" organized by Sri V. Rakesh, Assistant Professor, ME for students on every Thursday 4:45pm-6:45 pm

Alumni Lecture Series during Jan to June 2022

Proud Alumni, **Sri. Narayana Raju**, Software Developer, Infosys, addressed students regarding **Industry Expectations** and also shared his knowledge on **"Significance of programming skills for better career"** on 21-Feb-2022.



Sri S. Pradeep, Assist System Engineer, TCS, addressed students on "importance of Programming Languages for Mechanical Engineers" on 10th March 2022.

Ms. S Divya, Asst System Engineer Trainee, TCS and Ms G Shainetha, Graduate Engineer Trainee, Hyundai Motor India Engineering visited the Department on 9th April 2022.

Mr. Sri Venkata Subrahmanyam Vempati Hyundai Motor Group Hyderabad addressed students on "Career Opportunities in Automobile Industry" on 19th April 2022.



Md. Furqan Ahmed (cognizant technology solutions), Mohammed Aamir and Alugu Srinadh (OTTO VON GUERIECK UNIVERSITY MAGDEBURG, GERMANY) addressed students on "Masters Program in German Universities" on 21st April 2022

Sri Harsha Sharma, ME-Tool Design, CITD addressed students on "Career oppurtunities in Mechanical Engineering" on 18th April 2022

Industry Connect Lecture Series



Expert Lecture on FEM and CAE in Automobile Industry by Kiran Ambati, Technical Expert & CAE Expert, GeelyAuto/ Volvo, China

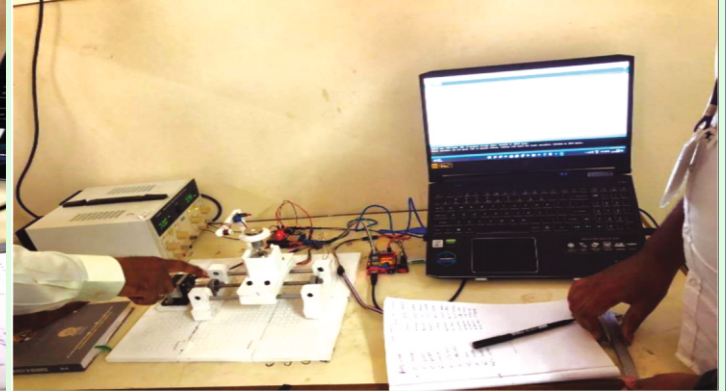
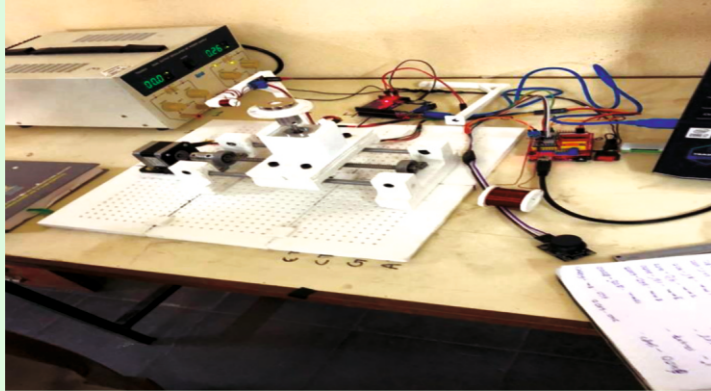
Placement Awareness Programme



Prof. K. Raja Narender Reddy TPO, Manager-Corporate Relations of T&P activities addressed students on "Awareness of T&P activities and opportunities in Core and IT industries" on 28th April 2022.

Indo American Artificial Heart Project (IAAHP)

(A Unit of Institute Funded R & D Project) A Report On Visit of Sri Chada Ramesh Reddy on 28.06.2022 Sri Chada Ramesh Reddy, Managing Director, Laxven Systems, Charlapally, Hyderabad has visited our institute on 28.06.2022 at 2.30 pm. Dr. G. Ganesh Kumar has presented on IAAHP progress at KITSW. IAAHP, KITSW team has developed the test rig to study the properties of Magnet used in Artificial heart. This setup can be used to study the variation of voltage with linear and rotational displacement of a magnet used in Centrimag pump.



Test Rig installed by IAAHP KITSW Team at KITSW to study the properties of ring Magnet used in Centrimag motor



Meeting at IAAHP Lab to discuss about the properties of Magnet used in Centrimag motor L-R Mr. V. Rahul, Dr. G. Ganesh Kumar, Dr. K. Ashoka Reddy, Sri. Chada Ramesh Reddy, Dr. K. Venu Madhav, Dr. U. Shrinivas balraj, Mr. G. Nikhil



L-R Dr. K. Venu Madhav, Dr. K. Ashoka Reddy, Sri. Chada Ramesh Reddy, Dr. G. Ganesh Kumar, Mr. V. Rahul, Mr. G. Nikhil

Congratulations...!

Sri S. Chandramouli, Assistant Professor, Department of Mechanical Engineering, Kakatiya Institute of Technology and Science, Warangal (KITSW), has been awarded Ph.D. degree for his thesis titled "*Multi Objective Optimization of Electric Discharge Machining Process Parameters*" by the Kakatiya University, Warangal in 2021.



Dr. S. Chandramouli



NPTEL Courses Registered Students - (171)

Advanced Thermodynamics	:	04
AI: Constraint Satisfaction	:	01
An Introduction to Artificial Intelligence	:	05
An Introduction to Programming Through C++	:	08
Artificial Intelligence: Knowledge Representation And Reasoning	:	03
Automatic Control	:	02
Basic Calculus - 1	:	02
Basic Linear Algebra	:	09
Cloud Computing	:	01
Computational Fluid Dynamics for Incompressible Flows	:	04
Computer Integrated Manufacturing	:	02
Convective Heat Transfer	:	01
Data Base Management System	:	01
Data Science for Engineers	:	01
Design Practice	:	05
Design, Technology and Innovation	:	01
Ethical Hacking	:	06
Experimental Methods in Fluid Mechanics	:	01
Explosions and Safety	:	01
Finite Element Method	:	02
Fundamentals of Automotive Systems	:	02
Fundamentals of Combustion	:	02
Fundamentals of Combustion for Propulsion	:	03
German - I	:	01
IC Engines and Gas Turbines	:	01
Industrial Automation and Control	:	01
Inspection and Quality Control in Manufacturing	:	02
Introduction To Fluid Mechanics	:	04
Introduction to History of Architecture in India	:	01
Introduction To Industry 4.0 And Industrial Internet of Things	:	06

Introduction to Machine Learning	:	05
Introduction to Machining and Machining Fluids	:	01
Introduction To Mechanical Micro Machining	:	01
Introduction To Programming In C	:	01
Manufacturing Automation	:	03
Manufacturing Guidelines for Product Design	:	01
Manufacturing Process Technology I & II	:	12
Mechanical Measurement Systems	:	01
Mechanics of Machining	:	03
Mechatronics	:	03
Nature and Properties of Materials	:	01
Noise Management & Control	:	01
Object Oriented System Development Using UML, Java And Patterns	:	02
Oil Hydraulics and Pneumatics	:	04
Product Design and Manufacturing	:	03
Programming In Java	:	04
Nature and Properties of Materials	:	01
Noise Management & Control	:	01
Object Oriented System Development Using UML, Java And Patterns	:	02
Oil Hydraulics and Pneumatics	:	04
Product Design and Manufacturing	:	03
Programming In Java	:	04
Programming, Data Structures And Algorithms Using Python	:	06
Robotics and Control : Theory and Practice	:	12
Robotics: Basics and Selected Advanced Concepts	:	03
Rocket Propulsion	:	01
Smart Materials and Intelligent System Design	:	01
Steam and Gas Power Systems	:	01
Theory and Practice of Non Destructive Testing	:	01
Thermal Physics	:	01

New initiatives in Mechanical Engineering department

- Inculcating Inspiration to know how things Made ~*IIM@ME*~ Webinar by students on every Friday evening
To inculcate inspiration to know how things are made by using disruptive technologies that would inspire the students to nurture technical skills to drive them to greater heights in their professional journey.
- Inculcating Inspiring Thoughts towards entrepreneurial career ~*IIT@ME*~ Webinar by students on every Wednesday evening
To inculcate Inspiring thoughts in students by exposing about inspirational journey of successful entrepreneurs that would inspire the students to nurture the entrepreneur qualities to achieve their goals and reach greater heights in their life.
- Inculcating Inspiration towards Self discipline & Commitment ~*IISC@ME*~ Webinar by students on every Monday evening
To inculcate inspiration about the required qualities by discussing the inspirational journey of eminent personalities that would inspire the students to nurture the values, qualities to achieve their goals in their life.
- ❖ A Webinar on "How World most Advanced Space Telescope-James Webb is Made!!" conducted by Mr. Sainath Reddy on 25.02.2022
 - ❖ A Webinar on "Student Responsibilities towards Education and Society", conducted by Mr. AVS Ramanuja Charyulu on 28.02.2022
 - ❖ A Webinar on Super Conducting Maglevs conducted by HARI KRISHNA .A on 04.03.2022
 - ❖ A Webinar on Inspiring Qualities of Dr. A.P.J Abdul Kalam conducted by R. Anish Sai on 07.03.2022
 - ❖ A Webinar on DHRUVAEROSPACE - PRIVATE SPACE INDUSTRY conducted by K. SAI TEJA on 09.03.2022
 - ❖ A Webinar on HOW FASTEST CARS ARE BEING BUILT - THE F1 conducted by SAKETI RAVI TEJA 11.03.2022
 - ❖ A Webinar on Leadership lessons from Swami Vivekananda conducted by A. Satya 14.03.2022
 - ❖ A Webinar on HOW THE BOEING 787 PLANES ARE BUILT conducted by VAMSHI KRISHNA 18.03.2022
 - ❖ A Webinar on First women IPS officer in India-Kiran Bedi conducted by T. Raviteja 21.03.2022
 - ❖ A Webinar on JSW STEEL REVOLUTIONIZING STEEL MAKING conducted by Mr. Manichander 23.03.2022
 - ❖ A Webinar on CRYOGENIC ENGINES conducted by RAVI TEJA THALLA 25.03.2022
 - ❖ A Webinar on Success story of missile women of India-Tessi Thomas conducted by A. Vishwas 28.03.2022
 - ❖ A Webinar on RENEW POWER-ONE OF INDIA'S LARGEST CLEAN ENERGY COMPANIES' conducted by P. ROHITH 30.03.2022
 - ❖ Webinar on "Biography of Sarojini Naidu-Nightingale of India" by K. Ruthwik (B19ME127) on 04-04-2022
 - ❖ Webinar on "TAKACHAR- Converting Agricultural Residue into Rich Carbon Dense" by Mr N. Rupesh Kumar (IV B. Tech- MED) on 06-04-2022
 - ❖ Webinar on "Revolutionary leader- Jatindra Nath Mukherjee" by T. Radha Krishna (B21ME138L) B.Tech IV SEM on 11-04-2022
 - ❖ Webinar on "TILAK MEHTA meet the youngest Entrepreneur" by Dharma Sahithi (II B. Tech- MED) on 13-04-2022
 - ❖ Webinar on "Portrait of a Hindutva Poineer Gazula Laxminarasu Chetty" by S. ABHINAV KUMAR (B20ME212L) III B. Tech ME on 18-04-2022
 - ❖ Webinar on "Kiran Chopra-Founder & Director of Chirayu Power Pvt. Ltd" by N. Kavya Sai (II B. Tech- MED) on 20-04-2022.
 - ❖ Webinar on "A True Warrior King "KERALA VARMA-PAZHASSI RAJA" by K V R S TEJA (II B. Tech- MED) on 25-04-2022
 - ❖ Webinar on "Auto micro UAS drone-Innovating the Future of Today" by S. Sushmith (II B. Tech- MED) on 27-04-2022
 - ❖ Webinar on "Learnings from Jannalal Bajaj, an industrialist social reformer and philanthropist" by T Ravi Teja on 02-05-2022.
 - ❖ Webinar on "Revelutionizing energy with graphene- learnings from Ashok singhal CEO of log9 materials" by K.Sai Teja (II B. Tech- MED) on 04-05-2022.
 - ❖ Webinar on "How the Chasis of a Vehicle is Built" by T Ravi Teja on 06-05-2022
 - ❖ Webinar on "The untold story of Ram Prasad Bismil, the poet, patriot and exemplary freedom fighter" by Harshavardhan (VI B. Tech- MED) on 09-05-2022.
 - ❖ Webinar on "Failing for success- Henry A. Ford" by K. Shanthan Rao (B18ME022) (IV B. Tech- MED) on 11-05-2022.
 - ❖ Webinar on "Anti lock braking system" by Mr. K. Vishnu Vardhan (II/IV B. Tech- MED) on 13-05-2022.
 - ❖ Webinar on "First Tribal Freedom Fighter of India- Tilka Manjh" by V. Rajesh on 16-05-2022.
 - ❖ Webinar on "India's first eco friendly drinking water box caro water" by K. Siddhartha (B19ME018) (III B. Tech- MED) on 18-05-2022.
 - ❖ Webinar on "Turbo-machinery" Mr. R. Vamshi Krishna (III/IV B. Tech- MED) on 20-05-2022.
 - ❖ Webinar on "Acharya' of Indian Chemistry- Prafulla Chandra Ray" by V. Rajesh on 23-05-2022.
 - ❖ Webinar on "The flight of wright brothers" by Mr. P. Shiva TEJA (B19ME161) (III B. Tech- MED) on 25-05-2022.
 - ❖ Webinar on "The Suspension System" by Mr. K. Akash (II/IV B. Tech- MED) on 27-05-2022.
 - ❖ Webinar on "The untold story of the Kathiawadi Doctor Pran Jivandas Jagjivandas Mehta" by A Vishnu Vardhan on 30-05-2022
 - ❖ Webinar on "Learnings from Jannalal Bajaj, an industrialist social reformer and philanthropist" by T Ravi Teja on 02-05-2022
 - ❖ Webinar on "Revelutionizing energy with graphene- learnings from Ashok singhal CEO of log9 materials" by K.Sai Teja (II B. Tech- MED) on 04-05-2022.
 - ❖ Webinar on "How the Chasis of a Vehicle is Built" by T Ravi Teja on 06-05-2022
 - ❖ Webinar on "The untold story of Ram Prasad Bismil, the poet, patriot and exemplary freedom fighter" by Harshavardhan (VI B. Tech- MED) on 09-05-2022.
 - ❖ Webinar on "Failing for success- Henry A. Ford" by K. Shanthan Rao (B18ME022) (IV B. Tech- MED) on 11-05-2022.
 - ❖ Webinar on "Anti lock braking system" by Mr. K. Vishnu Vardhan (II/IV B. Tech- MED) on 13-05-2022.
 - ❖ Webinar on "First Tribal Freedom Fighter of India- Tilka Manjh" by V. Rajesh on 16-05-2022.
 - ❖ Webinar on "India's first eco friendly drinking water box caro water" by K. Siddhartha (B19ME018) (III B. Tech- MED) on 18-05-2022.
 - ❖ Webinar on "Turbo-machinery" Mr. R. Vamshi Krishna (III/IV B. Tech- MED) on 20-05-2022.
 - ❖ Webinar on "Acharya' of Indian Chemistry- Prafulla Chandra Ray" by V. Rajesh on 23-05-2022.
 - ❖ Webinar on "The flight of wright brothers" by Mr. P. Shiva TEJA (B19ME161) (III B. Tech- MED) on 25-05-2022.
 - ❖ Webinar on "The Suspension System" by Mr. K. Akash (II/IV B. Tech- MED) on 27-05-2022.
 - ❖ Webinar on "The untold story of the Kathiawadi Doctor Pran Jivandas Jagjivandas Mehta" by A Vishnu Vardhan on 30-05-2022
 - ❖ Webinar on "India's Richest Person-Mukesh Ambani" by K. Manisha (B20ME071)(II B. Tech- MED) on 1st June 2022.
 - ❖ Webinar on "Monocoque Chassis" by Mr. K. Vishnu Vardhan (II/IV B. Tech- MED) on 3rd June 2022.
 - ❖ Webinar on "Tilak Mehta" by A. Srinidhi Nayak (B21ME051)(I B. Tech- MED) on 8th June 2022.
 - ❖ Webinar on "Bearings" by Mr. M. Viraj (II/IV B. Tech- MED) on 10th June 2022.
 - ❖ Webinar on "A firebrand freedom fighter- Durgabai Deshmukh " by M. Kavya Sri (B20ME109) on 13th June 2022.
 - ❖ Webinar on "Sanjiv Bajaj - Chairman and Managing Director of Bajaj" by S. Nivesh (B21ME126L)(II B. Tech- MED) on 15th June 2022.
 - ❖ Webinar on "Making of Ramjet Engine" by Mr. Rohith Kumar (II/IV B. Tech- MED) on 17th June 2022.
 - ❖ Webinar on "Inspirational facts about 'Deshbandhu'-Chittaranjan Das" by D Sahithi (B21ME146L) on 20th June 2022.
 - ❖ Webinar on "Kanika Tekriwal-CEO of JETSETGO Aviation Services Pvt. Ltd." by N. Rupesh Kumar (B20ME130L) (II B. Tech- MED) on 22nd June 2022.
 - ❖ Webinar on "The Nuclear Reactor" by Mr. K. Akash (II/IV B. Tech- MED) on 24th June 2022.
 - ❖ Webinar on "Sree Laxmi Suresh CEO of E-Designer Technology" by S. Sushmith (B18ME010) (IV B. Tech- MED) on 29th June 2022



Students undergone Internships in CITD, Hyderabad



Students undergone Internships in KTPS, Kothagudam



Students undergone Internships in Diesel Loco Shed, Secunderabad



Students undergone Internships in STPP, Jaipur, Mancherial



Newly added Equipment in the Laboratories (Heat Transfer Lab)



Procured and installed Heat Transfer Laboratory Equipments : (1) Composite walls Apparatus (2) Lagged pipe Apparatus (3) Thermal Conductivity of Insulating powder (4) Thermal Conductivity of metal bar (5) Pin - fin apparatus (6) Unsteady state of Heat Transfer (7) Forced Convection (8) Natural Convection (9) Parallel & Counter flow Heat Exchanger (10) Emissivity (11) Stefan Boltzmann constant (12) Condensation (13) Critical Heat flux and (14) Two phase Heat transfer on 8th April 2022. Total expenditure is Rs. 5,40,000/-



Inauguration of Heat Transfer Lab by Prof. K. Ashoka Reddy, Principal KITSW on 08th April, 2022

Program Outcomes (POs) of B. Tech in Mechanical Engineering Program

- PO1 : Engineering knowledge:** Apply the knowledge of mathematics, science, engineering fundamentals and an engineering specialization to the solution of complex engineering problems.
- PO2 : 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.
- PO3 : 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.
- PO4 : 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.
- PO5 : 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.
- PO6 : 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.
- PO7 : 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.
- PO8 : Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
- PO9 : Individual and team work:** Function effectively as an individual, and as a member or leader in diverse teams, and in multi disciplinary settings.
- PO10: 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.
- PO11: 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.
- PO12: 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.

VISION OF THE DEPARTMENT

- : To be a centre of excellence in Mechanical Engineering, to provide the best teaching-learning and research environment, to produce high quality professionals and entrepreneurs to cater the needs of society.

MISSION OF THE DEPARTMENT

- M1 :** To impart quality education that builds strong ethical attitude, technical knowledge and professional skills by providing congenial teaching-learning environment.
- M2 :** To nurture the reasoning, problem solving and research capabilities of learners by providing the state-of-the-art facilities, to meet the changing needs of society.
- M3 :** To inculcate life-long learning and leadership traits for successful professional careers, by counseling and mentoring.

Program Educational Objectives (PEOs) of B. Tech in Mechanical Engineering Program

The graduates of Mechanical Engineering will be able to ...

PEO1	Technical Expertise (Capability)	apply a broad understanding of mechanical engineering, as well as concepts from mathematics, science, communication and computing, to solve specific problems in industry and associated engineering fields.
PEO2	Successful Career (Distinctiveness)	demonstrate distinctiveness, professional ethics, integrity and innovation in their chosen profession and work well as individuals and in teams to achieve sustainable development in diverse fields.
PEO3	Lifelong learning (Leadership)	adapt to a constantly changing field by pursuing higher education, professional development, and self-study in order to contribute to society's well-being.

Program Specific Outcomes (PSOs) of B. Tech in Mechanical Engineering Program

- PSO1 :** To apply learned principles and knowledge in various applications of materials, design, thermal, production and industrial engineering.
- PSO2 :** To model, analyze, design, develop and implement advanced mechanical systems or processes

Program Outcomes (POs) of PG - M. Tech (Design Engineering) Program

At the time of graduation, the postgraduates of DESIGN ENGINEERING will be able to ...

- PO1 :** independently carry out research / investigation and development work to solve practical problems
- PO2 :** write and present an effective technical report/ document
- PO3 :** demonstrate competence in the area of design engineering

Program Educational Objectives (PEOs) of PG - M. Tech (Design Engineering) Program

- PEO1 (Research and Innovation) :** Engage in research, innovation and in teaching in Higher Education institutions
- PEO2 (Technical expertise and Successful career):** Excel in profession in industry, and entrepreneurship with updated technologies in the domain of design engineering
- PEO3 (Soft skills and Lifelong learning):** Exhibit professional ethics, effective communication and teamwork in solving engineering problems by adapting contemporary research towards sustainable development of society

Program Specific Outcomes (PSOs) of PG - M. Tech (Design Engineering) Program

The postgraduates of DESIGN ENGINEERING will be able to...

- PSO1** apply knowledge of design engineering for development of effective and innovative solutions to engineering problems
- PSO2** apply appropriate methodology, contemporary hardware and software tools to solve complex engineering problems in the domain of design engineering