

rajvada news

Department of Mechanical Engineering

R.V.R. & J.C. College of Engineering, Guntur-522019

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Inclusivity and Diversity

Diversity refers to the variety of human experiences, backgrounds, and identities that are present in a group or setting. **Inclusion** focuses on creating a space where everyone from that diverse range of backgrounds feels valued, respected, and empowered to participate fully.

Steps to create an inclusive and diverse environment

- **Diversity and Inclusion Training:** Educating staff and students on unconscious bias and creating a culture of inclusivity.
- **Accessible Resources:** Ensuring all materials and facilities are accessible to people with disabilities.
- **Multicultural Events:** Celebrating diversity through cultural events and celebrations.
- **Open Communication:** Creating channels for open communication and feedback to ensure everyone feels heard and valued.
- **Mentorship Programs:** Connecting people from different backgrounds to provide support and guidance.
- **Diversity in Leadership:** Encouraging diverse representation in leadership positions.

By actively fostering inclusivity and diversity, we create spaces where everyone can reach their full potential and contribute to a more vibrant and successful society.



Internal Research Projects in Progress

- ✦ Research project 'Performance Evaluation of Nickel Coated Alumina Reinforced AZ91E Magnesium Composites for alloy Wheel Applications' of Ch.Devaraj is in progress.
- ✦ Research project 'Experimental Investigation of Herbal based Nano Cutting Fluids with MQL in optimization of Turning' of D.Kondalarao and Dr.G.Srinivasarao is in progress.

Industrial Research Projects in Progress

- ✦ Prof.K.Ravindra, Prof.V.ChittaranjanDas, Dr.K.Praveen Kumar, and K.Snehita were sanctioned Rs.5,50,000/- for their research proposal on 'Mechanical and Electrical Behaviour of Boron & Amp; Vanadium Doped Fe-6.5 (Wt. %) Si Soft Magnetic Alloy Ribbons fabricated by Direct Powder Rolling' funded by Sri Venkateswara Electricals Pvt. Ltd, Guntur.
- ✦ Prof.N.V.V.S.Sudheer, Prof.B.RamgopalReddy, Dr.V.Tarachand, Dr.Md.Hasheer were sanctioned Rs.4,50,000/- for their research proposal on 'Improvement of COP of Air-Conditioning Systems by using different types of Insulations and Nano-compressor oil' funded by Design Tribe(India)Pvt. Ltd, Hyderabad.
- ✦ Prof.G.Srinivasarao, Prof.C.Srinivas, Dr.K.Balaprasad, Dr.N.Govind and Ms.Sneha.H.Dhoria were sanctioned Rs.4,00,000/- for their proposal on 'Investigation on Performance Improvement methods of transformer using Nano fluids in the perspective of cooling' funded by Sri Venkateswara Electricals Pvt. Ltd, Guntur.
- ✦ Dr.C.Tarasasanka, Dr.S.Radhika, J.P.Karthik were sanctioned Rs. 4,00,000/- for their research project proposal on 'Evaluation and Optimization of process parameters for agitation in concrete mixing' funded by Design Tribe(India)Pvt. Ltd, Hyderabad.
- ✦ Prof.K.Srinivas, Prof.D.V.V.Krishna Prasad, Dr.G.Chaitanya, Dr.V.Ramakoteswararao, J.Rangaraya chowdary were sanctioned Rs.4,50,000/- for their research proposal on 'Development and characterization of Boron & amp; vanadium doped fe-6.5(wt. %) Si soft magnetic alloy ribbons with Tio2 coatings' funded by Sri Venkateswara Electricals Pvt. Ltd, Guntur.

Patents Applications Filed/applied/ Published

- ✦ D.V.V.Krishna Prasad, G.Kishore Chowdari, M.Vijaya, J.Rangaraya Chowdary, D.Chakradhar filed a patent on

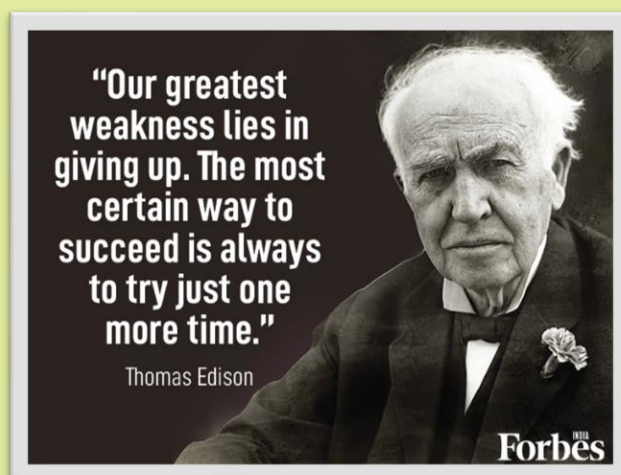
'Electric Scooter for Handicapped', Application No: 355258-001, Dec, 2021 at IPR India.

- ✦ B.Ramgopal Reddy, K.Lakshmi Chaitanya, Ch.Devaraj, K.Suryanarayana and K.Hari Prasad filed a patent on 'Door Mount Refrigerator', Application No: 355036-001, Dec, 2021 at IPR India.
- ✦ K.Praveen Kumar, K.Snehita, Sk.Mabunni, D.Kondala Rao and T.N.S.RamaKrishna filed a patent on 'A Mechanical Vehicle Tyre Cutting Machine', Application No: 354860-001, Dec, 2021 at IPR India.
- ✦ V.Ramakoteswara Rao, Md.Hasheer, A.Muddu,

P.Siddartha and Ms.Sneha.H.Dhoria filed a patent on the design application of Agricultural Robot Application No: 355374-001, Dec,2021 at IPR India.

Guest Lectures Delivered

- ✦ Dr.S.Radhika, 'Financial Literacy for You', SEBI Sponsored Online Investor Awareness Program, Oct,7, 2021.



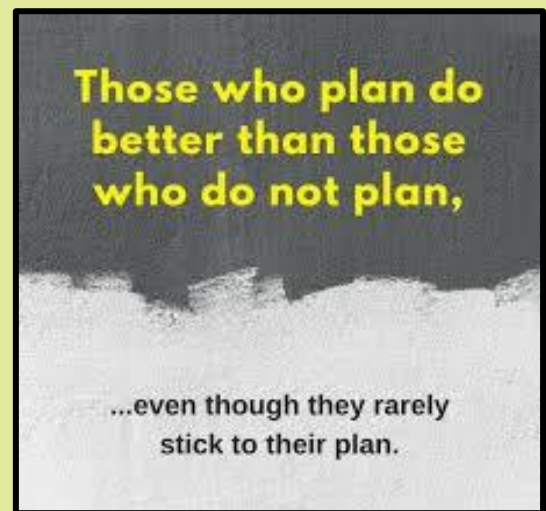
Guest Lectures Organized

- ✦ Ms. Shilpa Thakur, Founder, Incoen Systems delivered a lecture on 'Tailoring your Profile- An Employee's and an Entrepreneur's perspective', for all the Mechanical Engineering Students. The session covers the topics of Introduction to Incoen Systems, Journey from student to Entrepreneur, Traits of an Entrepreneur, Difficulties that early start up Face, Things an early Entrepreneur needs to watch out, Navigating your way through for successful start-up, Dept. of ME, in association with APSSDC, on July, 07,2021.
- ✦ Lt. Sandeep delivered a lecture on 'ARMY as Career' for all the III B.Tech students The session covers on enlightening students about army as a career on 08, Oct, 2021.

Research Paper Publications

- ✦ Jush Kumar Siddani, C.Srinivas, P.Saritha, P.Chinna Sreenivas Rao, 'Effect of EDM-Drilling Process Parameters Using Brass, Copper And Zinc Coated Tubular Electrodes on Drilling of Ti-6al-4v', Turkish Online Journal of Qualitative Inquiry, Vol. 6, 6114 - 6124, July 2021. (Scopus Indexed)
- ✦ G.Nagaratnam, K.Srinivas, 'Experimental and Testing of Kevlar chopped mate and Kenaf fibers using Hand layup Technique', International Journal of Advance Scientific research, Vol. 6 (7), 1076-1085, July, 2021.

- ✦ M.Rupesh, K.Ravindra, 'Effect of FDM Process Parameters on Tensile strength of PLA', International Journal of Creative Research thoughts', Vol. 9 (8), c147-c151, Aug, 2021.
- ✦ M.Subbarao, G.Chaitanya, 'Fabrication and Testing of Hybrid Fiber Composite with Experimentation and Finite Element method using Hand layup technique', International Journal of Advance Scientific research, Vol. 6 (8), 1076-1085, Aug, 2021.
- ✦ R.N.D.S.S. Kiran, C. Aparna, S.Radhika, 'An Enhanced Weight Update method for simplified ARTMAP to classify Groundwater data', International Journal of Design & Nature and Ecodynamics, Vol. 16 (5), 517-524, Oct, 2021.doi: 10.18280/ijdne.160505. (Scopus Indexed)
- ✦ B.Supraja Reddy, B.Ramgopal Reddy, 'Influence of Process Parameters and Tool on Mechanical and Metallurgical Properties of Pure Copper and Aluminum Alloy AA7075 Dissimilar Friction Stir Welded Joint', International Journal of Engineering Trends and Technology, Vol. 69 (9), 73-79, 2021 (Scopus Indexed).
- ✦ Ranga Reddy Nallabothula, B.Ramgopal Reddy, 'Experimental Investigation of Wear Resistance of Coconut Shell Ash and Fly Ash Reinforced Aluminum Metal Matrix Composite', Journal of Huazhong University of Science and Technology, Vol. 50 (8), 1-9, 2021. (Scopus Indexed)
- ✦ Reddy Sreenivasulu, Ch.SrinivasaRao, 'Optimization of Drilling Parameters during machining of Al-Mg-Si Alloys by Taguchi Method coupled with Grey Relational Analysis and validated by FEA based DEFORM - 3D, Strojnickyčasopis–Journal of Mechanical Engineering, E-ISSN:2450-5471, Vol. 71 (2), 221-238, 2021. doi: 10.2478/scjme-2021-0032 (Scopus Indexed)
- ✦ Sneha.H.Dhoria, R.Meenakshi Reddy, T.Raja, Pradeep kumar, Nasif, Jenish, et.al 'Studies on Mechanical Properties of Kevlar/Napier Grass Fibers reinforced with Polymer Matrix Hybrid Composite', Advances in Materials Science and Engineering, Vol. 2021. <https://doi.org/10.1155/2021/6907631>.(SCI-e)
- ✦ Y.N.V.Sairam, C.Tarasasanka, J.Prabakaran, 'Application of MADM Methods for the Synthesis of Alumina/Lanthanum Hexa-aluminate Powders by Chemical Precipitation and Filtration Method', IOP Conference Series: Materials Science and Engineering 1185 (1), 012001,2021, [doi:10.1088/1757-899X/1185/1/012001](https://doi.org/10.1088/1757-899X/1185/1/012001).(Scopus Indexed)
- ✦ J.P.Karthik, C.Tara Sasanka, C.M. Raguraman, 'Optimization of Process Parameters for preparation of Coal water slurry using Ant Colony Optimization and Hydrodynamic Simulation', International Journal of Coal Preparation and Utilization, 2021, <https://doi.org/10.1080/19392699.2021.1986032>.(SCI-e)
- ✦ Sk.Md.Hasheer, K.Srinivas, V.Tara Chand, K.Bala Prasad, K.Ravindra, 'Thermodynamic Analysis of Eco-friendly Refrigerant mixtures as an alternative to HFC-134a in household refrigerator', International Journal of Heat and Technology, Vol.39(5), 1567-1574,2021. doi:10.18280/ijht.390519.(Scopus Indexed)
- ✦ Sk. Md. Hasheer, K.Srinivas, and K. Bala Prasad, 'Energy Analysis of HFC-152a, HFO-1234yf and HFC/HFO Mixtures as a Direct Substitute to HFC-134a in a Domestic Refrigerator', Strojnicky časopis - Journal of Mechanical Engineering 71.1: 107-120,2021. (Scopus Indexed)
- ✦ K.Hari Prasad, C.Ananda Srinivasan, and K.Praveen Kumar, 'Performance and Emission Evaluation of Direct Injection Diesel Engine Using Canola, Sesame Biodiesels with N-Butanol', Strojnicky časopis-Journal of Mechanical Engineering 71(1), 139-148,2021. (Scopus Indexed)



- ✦ P.Bharathi, G.Srinivasarao, P.Gopalakrishnaiah, 'Multi-Objective Optimization in Wire Electric Discharge Machining of Ti-6AL-4v using Grey Relational Analysis for Square and Circular Profiles', International Journal of Modeling, Simulation, and Scientific Computing 2250003,2022. doi: 10.1142/S1793962322500039. (Scopus Indexed)
- ✦ V.Ramakrishna, G.Srinivasarao, 'Experimental and Testing of Basalt And E Glass Fibers Using various Percentages of Graphite Powder Using Hand Layup Technique', Journal of Huazhong University of Science and Technology, Vol. 50 (8), 1-15, 2021.
- ✦ Ch.Kamprasad, K.Praveen Kumar, 'Applications of Magnesium Metal Matrix Composites - A Review' , Design Engineering, Vol.2021(5),2435 - 2445, 2021.
- ✦ G.Nagarjuna, N.Govind, 'Comparison of Computational Methods by Applying on Transient Couette Magnetic Nano Fluid Flow', Design Engineering, 6462-6470, 2021.
- ✦ M.M.Rao, N.V.V.S. Sudheer, S.A. Basha, 'Chemical Characterization of cow urine for cooling media application in Metallurgical Operations', International Journal of Engineering Trends and Technology, 69(10), 52–56, 2021. (Scopus Indexed)

- ✦ N. Santhi Sree, N.V.V.S. Sudheer, P. Bhramara, 'Mathematical Modeling of Closed Loop Pulsating Heat Pipe by Using Artificial Neural Networks', International Journal of Heat and Technology Vol. 39(3), 955-962, 2021. (Scopus Indexed)
- ✦ M. Ravi Kumar, V.Venkata Reddy, V. RamaKoteswara Rao and K.Srinivasulu Reddy, 'Wear and Frictional Behavior of Al 7075/FA/SiC Hybrid MMC's using Response Surface Methodology', Silicon, 2021, <https://doi.org/10.1007/s12633-021-01300-3>.(Scopus Indexed)
- ✦ S.RamaRao, M.Ravi Kumar and V.Ramakoteswara Rao, 'Multi-Objective Optimization In Turning of Al 7075-Sic Composites Using Desirability Analysis', <https://doi.org/10.1016/j.matpr.2021.11.256>.(Scopus Indexed)

Paper Presentations in Conferences

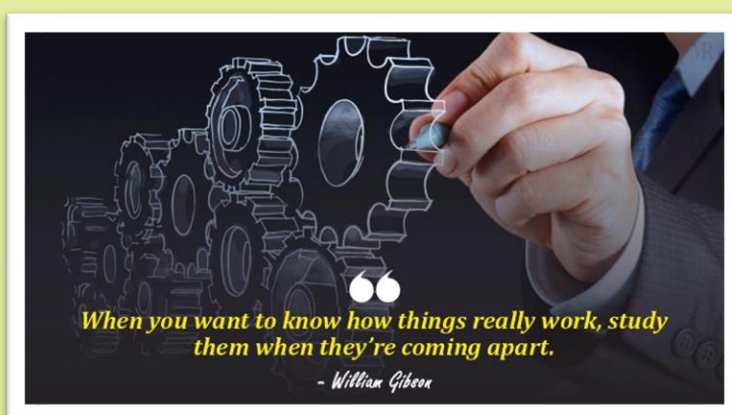
- ✦ B.Lokesh Sriram, S.Radhika, B.Sateesh, N.Ramudu, 'Smart Garbage Management System', 3rd International Conference on Processing and Characterization of Materials, Dept. of Metallurgical and Materials Engineering, National Institute of Technology, Rourkela, Dec, 07-08, 2021.
- ✦ G.Srinivasarao, 'Modeling and optimization of WEDM parameters for surface roughness using Response Surface methodology', Proceedings of the 9th Conference on Advancements and Futuristic Trends in Mechanical and Materials Engineering, Indian Institute of Technology Ropar, Punjab, Dec, 9-11, 2021.
- ✦ Reddy Sreenivasulu, 'Optimization of Machining Parameters in Drilling of AA 7075 alloys using TOPSIS and Taguchi Method, 2nd International Conference on Future Technologies in Manufacturing, Automation, Design and Energy, National Institute of Technology, Puducherry, Dec, 16-18, 2021.

Conferences/Workshops/Webinars Attended

- ✦ K.Snehita, AICTE Training and Learning Academy Online STC, '4D Printing on Smart Manufacturing, National Institute of Technical Training and Research Chandigarh, June 28 - July 3, 2021.
- ✦ A.Muddu, International Workshop, 'Emerging Trends in Mechanical, Aerospace and Robotics Engineering', School of Mechanical Engineering, VIT Bhopal, July 7-9, 2021.
- ✦ Sneha.H.Dhoria, AICTE training and Learning Academy Online FDP, 'Management of Intellectual Property (IP) and Innovation(Creation, Protection and Leveraging of IP), National Institute of Industrial Engineering, July, 05-09, 2021.
- ✦ Md. Hasheer, One week National Level FDP, 'Transformation in Indian Education through New Education Policy- Challenges and Opportunities', Government First Grade College for Women, Balmatta,

Mangaluru in association with St.Aloysius College, Mangaluru, July,05-11, 2021.

- ✦ Sneha.H.Dhoria, AICTE training and Learning Academy Online FDP, 'Multi-Objective Optimization and Product Innovation Through TRIZ(Theory to resolve Inventive problems), Sri Shanmugha College of Engineering, July, 12 - 16, 2021.
- ✦ K.Praveen Kumar, V.Ramakoteswara Rao AICTE Training and Learning Academy Online FDP, 'Novel Materials for next generation Applications', Ramaiah Institute of Technology, Bengaluru, July, 12-16, 2021.
- ✦ C.TaraSasanka, J.Ranga Raya Chowdary, J.P.Karthik, ATAL Online FDP, 'Elements of FEM', Dept. of Mechanical Engineering, Government Engineering College, Bharuch, July, 26-30, 2021.



- ✦ S.Radhika, ATAL online FDP, 'Innovation Management: Idea to Prototype', Institute of Integrated Learning in Management University (IILM), Gurgaon, Aug, 2- 6, 2021.
- ✦ V.Chittaranjan Das, G.Chaitanya, ATAL Online FDP, 'Advancement in Material Processing Technologies', Dept. of Mechanical Engineering, TAPI Diploma Engineering College, Aug, 9-13, 2021.
- ✦ D.Kondalarao, AICTE Training and Learning Academy Online FDP, 'Finite Element Method(with application to solid mechanics, heat transfer and fluid mechanics)', M.B.M Engineering College, Faculty of Engineering and Architecture Vyas University, Jodhpur. Aug, 17-21,2021.
- ✦ Y.N.V.Sairam, AICTE Training and Learning Academy Online Elementary FDP, 'Additive Manufacturing: Current Trends and Prospects Towards Developing AM Research', Indian Institute of Technology Kanpur, Aug, 22 - 26, 2021.
- ✦ D.Kondalarao, AICTE Training and Learning Academy Online FDP 'Green Technology', Sant Longowal Institute of Engineering and Technology, Longowal, Aug, 23-27, 2021.
- ✦ Y.N.V.Sairam, K.Harprasad, AICTE Training and Learning Academy Online Elementary FDP, ' Environment and Sustainability: Need of the Day', Sree Vidyanikethan Engineering College. Sep, 13 - 17, 2021.

- ✦ C.TaraSasanka, J.Ranga Raya Chowdary, J.P.Karthik, 'AICTE Training And Learning Academy Online Elementary FDP, 'Novel Materials, Fabrication, Design & Optimization', Veer Surendra Sai University of Technology, Burla, Sep, 20 - 24, 2021.
- ✦ V.Chittaranjan Das, K.Snehita, AICTE Training and Learning Academy Online FDP, Processing of Novel materials, Indian Institute of Technology, Varanasi, Sep, 20-24, 2021.
- ✦ K.Hariprasad, AICTE Training and Learning Academy Online FDP, 'Alternative fuels: Biofuels', P D A College of Engineering Kalaburagi, Oct, 4 - 8,2021.
- ✦ K.Snehita, AICTE Training and Learning Academy Online FDP, Additive Manufacturing : Current Trends and Prospects towards developing AM research', Indian Institute of Technology, Kanpur, Oct, 25-29, 2021.
- ✦ N.V.V.S.Sudheer, AICTE Training and Learning Academy Online FDP, 'Fundamentals of Electric Vehicles, Indian Institute of Technology, Oct, 25-29, 2021.
- ✦ D.V.V.Krishna Prasad, V.Chittaranjan Das, G.Srinivasarao, C.Srinivas, B.Ramgopal Reddy, N.V.V.S.Sudheer, K.BalaPrasad, G.Chaitanya, K.Praveen Kumar, S.Radhika, V.RamakoteswaraRao, G.Kishore Chowdari, Reddy Sreenivasulu, D.Swapna, K.Lakshmi Chaitanya, Ch.Devaraj, M.Vijaya, C.TaraSasanka, V.Tarachand, J.Ranga RayaChowdary, J.P.Karthik, Md.Hasheer, Sneha.H.Dhoria, D.Kondalarao, K.Hariprasad, K.Snehita, T.N.S.RamaKrishna, A.Muddu, One week National level Intercollegiate Online FDP, 'Outcome Based Education & Bloom's Taxonomy', Internal Quality Assurance Cell of Ramakrishna Mission Vivekananda Centenary College, Kolkata, IPSR solutions limited, Nov, 08 - 15, 2021.
- ✦ Sneha.H.Dhoria, K.Snehita, two day international Webinar, 'Global Warming and Climate Change', Indian Institute of Chemical Engineers, Amaravati Regional Center , Nov, 12-13,2021.
- ✦ Y.N.V.Sairam, one week online FDP, 'Outcome Based Education And Bloom's Taxonomy', Internal Quality Assurance Cell of Auxilium College (Autonomous), Vellore in association with ipsr solutions limited, Nov, 22 - 27,2021.
- ✦ A.Muddu, 5 day online FDP '3D Printing and Design' AICTE Training and Learning Academy, College of Engineering, Pune, Nov. 29- 3 Dec, 2021.
- ✦ K.Ravindra, K.Srinivas, International conclave 'Atmanirbhar Bharat-Role of New Education Policy', Velagapudi Ramakrishna Siddhartha Engineering College and in association with Nagarjuna Educational Society, Dec, 4,5, 2021.
- ✦ B.Ramgopal Reddy, Reddy Sreenivasulu, ATAL Academy Online Elementary FDP '3D Printing and Design of Metals and Polymers', IIT Indore, Dec, 06 - 10, 2021.
- ✦ S.Radhika, ATAL online FDP, 'EDP on fostering Start-up, Innovation and Entrepreneurship/Intrapreneurship', Andhra University, Visakhapatnam, Dec, 6-10, 2021.
- ✦ S.Radhika, ATAL online FDP, 'Social Entrepreneurship', Entrepreneurship Development Institute of India (EDII), Ahmedabad, Dec, 6 - 10, 2021.
- ✦ Reddy Sreenivasulu, V.Tarachand, ATAL Academy Online FDP 'Advanced Manufacturing of Biomedical Devices for Precision Health Technologies, IIT Tirupati, Dec, 13-17, 2021.
- ✦ K.Lakshmi Chaitanya, one day workshop, 'Sexual Harassment of Women at Workplaces(POSH Act 2013)', Acharya Nagarjuna University, AP Women's Commission, Dec,15,2021.
- ✦ V.Chittaranjan Das, ATAL online FDP, 'Advanced Manufacturing of Biomedical Devices for precision Health Technologies ,Indian Institute of Technology, Tirupati, Dec, 13- 17 , 2021.
- ✦ A.Muddu, Primary Evaluator, 'Toycathon 2021', AICTE and Ministry of Education's Innovation Cell.

Ph.D Awarded Under Faculty Guidance



- ✦ Under the guidance of Professor Kolla Srinivas, RVRJCCE, one Ph.D degree was awarded to Mr. Mohammad Hasheer Shaik, by ANU, in Sep, 2021. The title of the thesis was 'Investigation of a low GWP refrigerants and mixtures in the perspective of searching alternative refrigerants to replace R134a in a domestic refrigerator'.

