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Department of Mechanical Engineering

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

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Collaborative Learning

Collaboration is a philosophy of interaction and personal lifestyle where individuals are responsible for their actions, including learning and respect the abilities and contributions of their peers. In all situations where people come together in groups, it suggests a way of dealing with people which respects and highlights individual group members' abilities and contributions. There is a sharing of authority and acceptance of responsibility among group members for the groups' actions. The underlying premise of collaborative learning is based upon consensus building through cooperation by group members, in contrast to competition in which individuals best other group members. CL practitioners apply this philosophy in the classroom, at committee meetings, with community groups, within their families and generally as a way of living with and dealing with other people.



Internal R & D Project in Progress

- ✦ Ch. Devaraj was sanctioned Rs.30, 000/- for his research project proposal on 'Performance evaluation of Nickel coated Alumina Reinforced AZ91E magnesium composites for alloy wheel applications'.
- ✦ D.Kondalarao, Dr. G. Srinivasarao were sanctioned Rs. 40,000/- for their research project proposal on Experimental investigation of herbal based Nano cutting Fluids with MQL in optimization of turning'.

Internal R & D Project Completed

- ✦ Dr.C.TaraSasanka, J.P.Karthik were sanctioned Rs.40,000/- for their research project proposal on 'Evaluation and optimization of process parameters during heat transfer of coal water slurry used in coal gasification plant'.

Industrial R & D Projects

- ✦ Dr.K.PraveenKumar,Prof.K.Ravindra,Prof.V.Chittaranjan Das, K.Snehita, were sanctioned Rs.5,50,000/- for their proposal on 'Mechanical and Electrical behaviour of Boron & 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, Md.Hasheer were sanctioned Rs. 4,50,000/- for 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.
- ✦ Dr.K.Balaprased,Prof.G.Srinivasarao, Prof.C.Srinivas, Dr.N.Govind, Sneha.H.Dhoria were sanctioned Rs.4,00,000/- for 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, J.P.Karthik, D.Bharat Prasanna, Dr.S.Radhika was 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.
- ✦ Dr.V.RamaKoteswara Rao, Prof. K. Srinivas, Prof. D.V.V.Krishna Prasad, Dr.G.Chaitanya, J.Rangaraya chowdary were sanctioned Rs.4,50,000/- for proposal on 'Investigation of insulation and corrosion properties of transformer cores with electrical steel coatings' - funded by Sri Venkateswara Electricals Pvt. Ltd,Guntur.

Workshops organized

- ✦ One day online workshop on 'Development in Design and Automation for Industry 4.0' was organized for the faculty and students, on 16 June 2021. Mr.S.Vinay, Conceptia Software Technologies

Pvt. Ltd., Bengaluru shared his knowledge on role of Solid Works in design and automation for industry 4.0. Prof. Kolla Srinivas was Coordinator and Dr. K. Praveen Kumar was the Coordinator of the programme. A total of 139 IV B.Tech. (ME) Students and 6 staff members were participated in workshop.

- ✦ A DST sponsored 6-week 'Online Technology based Entrepreneurship Development Programme (TEDP)', 8 Feb - 20 March,2021. Dr.S.Radhika as program Coordinator and Dr.C.TaraSasanka as the Co-coordinator.

Guest Lectures Delivered

- ✦ Dr.S.Radhika delivered a guest talk on 'Charms of being an Entrepreneur and, Working Capital Assessment & Management in MSME' in the DST Sponsored 6- Week Online technology based Entrepreneurship Development Programme, organized by the Dept. of ME, RVR&JCCE, Feb. 8 - Mar.2, 2021.
- ✦ Dr.S.Radhika delivered a guest talk on 'Business Opportunity Guidance and role of DIC, SISI, Bank, KVIC', DST Sponsored four week women Entrepreneurship Development Programme, EMDC, Sasi Institute of Technology and Engineering, Tadepalligudem, Mar. 10, 2021.
- ✦ Dr.C.Tarasasanka delivered a guest talk on 'HTML', DST Sponsored 6- Week Online technology based Entrepreneurship Development Programme, Dept. of ME, RVR&JCCE, Mar, 3- 4, 2021.
- ✦ J.Rangaraya Chowdary delivered a guest talk on 'Design thinking', DST Sponsored 6 - Week Online technology based Entrepreneurship Development Programme, Dept. of ME, RVR&JCCE, Feb,19, 2021.

Research Paper Publications

- ✦ K.SivaPrasad, G.Chaitanya, 'Experimental investigation on Dimensional Accuracy in Drilling of GFRP composites, Solid state Technology, Vol.64(2),1175-1180, Feb, 2021.
- ✦ R.Vijaya Prakash, V.Chittaranjan Das, 'EDM Investigation of Al 7075 /B4c/ZrO2 Hybrid Metal Matrix Composite By Applying Response Surface Method', International Journal of Advanced Research in Engineering and Technology, Vol.12(3), 152-164, ISSN Print: 0976-6480 and ISSN Online:

0976-6499, March 2021, DOI: 10.34218/IJARET.12.3.2021.0017

- ✦ M.Manjusha and Sneha.H.Dhoria, 'Gender Equality And Women's Empowerment In India: Issues And Challenges', International Journal of Multidisciplinary Educational Research, Vol-10, Issue3(5), March,2021.
- ✦ R.N.D.S.S Kiran, C.Aparna, S. Radhika, 'Classification of ground water by applying simplified fuzzy adaptive resonance theory', International Journal of Design & Nature and Eco dynamics,Vol.16(2),167-176, April, 2021.
- ✦ Reddy Sreenivasulu and G.Chaitanya, 'Optimization of Process Parameters for Multi Criterion Decision Making in Abrasive Water jet Machining of Magnesium - Silicon based Aluminium alloys', International Journal of Modern Manufacturing Technologies, ISSN: 2067-3604, Vol.XIII(1),176-184, June 2021.
- ✦ G.Kishore Chowdari, D.V.V.Krishna Prasad, 'Mechanical Characterization of Areca Fiber and Coconut Shell Powder Reinforced Hybrid Composites', Material science forum, Vol.1034, ISSN: 1662-9752, 61-71, June 2021.
- ✦ Jush Kumar Siddani, C Srinivas, Madan Mohan Reddy Nune, Srinivasa Chalapathi, 'Experimental Investigations on Micro Electric Discharge Machining Process Parameters by Using RSM', Journal of Green Engineering, Vol.11(3), March,2021.
- ✦ K.L.Chaitanya, K. Srinivas, M. Vijaya, 'Optimization Of Wear Behaviour Of LM26-Gr Composite Using Taguchi Based Grey Relational Analysis', Turkish Journal of Computer and Mathematics Education, Vol.12(7), 3148-3156, 2021.
- ✦ R.Vijaya Prakash, V.Chittaranjan das, ' Mechanical characterization of Hybrid Reinforcement of Boron Carbide and Zirconium Dioxide in Aluminium Metal Matrix (Al 7075)', LINO Journal, Vol.11 (2), 2021.
- ✦ M.Naga Swapna, P.Anusha, V.Chittaranjandas, K.Srividya, 'Radiation Effect on MHD Casson Fluid Flow Linearly Porous Stretching Sheet in the Presence Chemical Reaction', Annals of R.S.C.B., ISSN:1583-6258, Vol. 25(2), 4430 – 4439,2021.
- ✦ Reddy Sreenivasulu, G.Chaitanya, G.Vijay Kumar and M. Radha Devi, 'Inverse Kinematic Solution for Five bar Parallel Linkage Planar Manipulator using PYTHON and Optimization by Taguchi Method', International Journal of Engineering Trends and Technology, Vol. 69(5),94-100, 2021.
- ✦ K.Siva Prasad and G.Chaitanya, 'Optimization of process parameters on surface roughness during drilling of GFRP composites using Taguchi technique', Materials today: Proceedings 39, 1553-1558,2021.
- ✦ K.Siva Prasad and G.Chaitanya, 'Multi-Objective Optimization of process parameters in GFRP composite drilling process using GRA-PCA technique', Journal of Xidian University, Vol.15(1), 116 - 123, 2021.
- ✦ Y.N.V. Sai Ram , C. Tarasasanka , J. Prabakaran, 'Preparation and characterization of lanthanum hexa aluminate powders for high temperature

applications', Materials Today Proceedings, Vol.39(4),1472-1475,2021,

- doi:10.1016/j.matpr.2020.05.368
- ✦ Y.N.VSairam, C.TaraSasanka, Prabakaran Jayaraman, D.Sameer Kumar, 'Estimation of Lattice Strain in Lanthanum Hexa Aluminate Nanoparticles Using X-Ray Peak Profile Analysis', Revue des Composites et des Matériaux Avancés-Journal of Composite and Advanced Materials 31 (1),13-19, 2021.
- ✦ D. Kondala Rao, Kolla Srinivas, Md. Hasheer SK, and K.Hari Prasad 'Mathematical modelling of dominant features identification for tool wear monitoring in hard turning by using Acoustic emission', Turkish Journal of Computer and Mathematics Education Vol.12(2),935-943,2021.
- ✦ K.Arunasanthi, C.Srinivas, R. AjayKumar, 'Experimental investigation of mechanical properties of jute-ramie reinforced epoxy hybrid composites', Science Direct Materials Today proceedings, Vol.39(4), 1309-1315, 2021.

Paper Presentations in Conferences

- ✦ Reddy Sreenivasulu, 'Effect of drill wear on surface roughness during drilling of multi hole parts with twist drill bit in the optimization of variable geometrical parameters using Grey relational analysis coupled with Taguchi method', International Conference on Advances in Science and Technology (ICAST), Institute of innovations, Tiruvannamalai April, 2-3,2021.
- ✦ V.Krishna Teja, R.Sreenivasulu, O.V.Gnaneswara Reddy, J.J.Samuel Isaac, Y.Shivaram, Y. Mohana Ayyappa, S.S.V.Karthek, 'Design and simulation of a cooling system for single point cutting tool using Peltier effect', International Conference on Advances in Science and Technology (ICAST), Institute of innovations, Tiruvannamalai, April, 2 - 3,2021.
- ✦ Y.Shiresha, N.Govind, 'Experimental Study on Tensile Behavior of Tri Axial Hybrid Fiber Composites', International Conference on Recent Advances in Manufacturing, Dept. of ME, S.V. National Institute of Technology, Surat, June, 10-12,2021.

Conferences/Workshops Attended

- ✦ G.Chaitanya, ATAL Online FDP, ' 3D Printing and Design', IIT Design and Manufacturing, Kancheepuram, Jan,4-8, 2021.
- ✦ V.Chittaranjan Das, AICTE training and learning (ATAL) Academy online FDP 'Additive Manufacturing', PSG College of Technology, 18-22,Jan .2021.
- ✦ Md.Hasheer, K.Hariprasad, two week online FDP, 'Renewable Energy Intervention In Industry, Commercial And Domestic Application', Rajeev Gandhi Memorial College of Engineering and Technology, Nandyal, Feb, 15-27,2021.
- ✦ V.Chittaranjan Das, AICTE training and learning (ATAL) Academy online FDP 'Additive

Manufacturing', Hindusthan College of Engineering and Technology, 16-20 Feb.2021.

- + G.Srinivasarao, 100 days yoga program, 'Yoga for Unity and Well-being', March 14 - June 21, 2021.
- + S.Radhika, Online Orientation Training Programme for Mentors, AICTE- NITTT, April 19 - 23, 2021.
- + A.Muddu, five day online FDP 'Metallurgical Aspects In Additive Manufacturing' Department of Metallurgical and Materials Engineering, NIT-AP, April, 19-23, 2021.
- + B.Ramgopal Reddy, G.Chaitanya, K.Praveen Kumar, G.Kishore Chowdari, online FDP 'Vehicle Dynamics setup using MBD'APSSDC in association with Dassault systems, May 10 - 14, 2021.
- + C.TaraSasanka, Reddy Sreenivasulu, A.Muddu, online FDP, 'Systems engineering', APSSDC in association with Dassault Systems, May, 17-22, 2021.
- + M.Vijaya, K.L.Chaitanya, Ch.Devaraj, 'Productivity Enhancement through Meditation', AICTE Training and Learning (ATAL)Academy, Jaipur Engineering College and research center, May, 25-28,2021.
- + Reddy Sreenivasulu, online FDP, 'Recent Trends in Precision Agriculture', Sant Longowal Institute of Engineering and Technology (SLIET), Longowal, ATAL, May 31 - 4 June, 2021.
- + G. Kishore Chowdari, Online FDP, 'Recent Advances and Challenges in Nano scale Devices: Design, Materials and Application Perspective', NIT Hamirpur, June 1-5, 2021.
- + G.Srinivasarao, two week online FDP, 'Advances in Composite Materials, Manufacturing Processes and Optimization techniques', Academy of Maritime Education and Training, Chennai, June 1 - 14, 2021.
- + K.Snehita, online FDP, 'Advancements in Computational Fluid Dynamics using FLUIDYN', Alliance University, ATAL, June 7-11, 2021.
- + A. Muddu, five day online FDP 'Design thinking in 3D Printing' AICTE Training and Learning (ATAL) Academy, Indian Institute of Technology (IIT BHU) Varanasi, June 7-11, 2021.
- + Reddy Sreenivasulu, online FDP, 'Robotics and Control', IIITDM Kurnool, ATAL, June,14-18,2021.
- + A. Muddu, five day online FDP 'Emerging Technologies in Product Design & Development', AICTE Training and Learning (ATAL) Academy, Government College of Engineering, Chandrapur, June 14-18, 2021.
- + Md. Hasheer, One week National Level Online FDP, 'Online Teaching Tools for Educators' , ISTE Chapter, Murugappa Polytechnic College, Chennai, June 14-20, 2021.
- + C.Srinivas, Sneha.H.Dhoria, AICTE Training and Learning (ATAL) Academy online FDP on 'Achieving Operational Excellence by Digital Transformation of Supply Chain', RV College of Engineering, June, 21-25,2021.
- + M.Vijaya, K.L.Chaitanya, AICTE training and learning (ATAL) Academy online FDP, 'Functional Materials for Energy Environment and Healthcare', NIT Calicut, June,21-25, 2021.
- + C.TaraSasanka, Y.N.V.Sairam, K.Hariprasad national level seminar, 'Quality Improvement via

Accreditation and Ranking', IQAC, Bapatla Engineering College, June 28-29, 2021.

- + V.Tarachand, One week Online FDP, 'Emerging trends in Thermal and Renewable Systems', Dept. of ME Lakireddy Balireddy College of Engineering, June 28 - 2 July, 2021.

Ph.D. Awarded under Faculty Guidance

- + M.Vijaya, Assistant Professor, RVRJCCE, was awarded Ph.D from Acharya Nagarjuna University , for her thesis on 'Processing and Evaluation of Mechanical and Wear characteristics of Al6351/Sic and Al6351/Sic/Graphite aluminium hybrid metal matrix composites' under the guidance of Prof. K.Srinivas, HOD, in March 2021.
- + Under the guidance of Prof.B.Ramgopal Reddy two Ph.D's were awarded by Acharya Nagarjuna University .
- + RaffiMohammed - The title of the thesis was 'Fabrication, Mechanical Characterization and Erosion Wear Response of E-Glass Fibre reinforced and Particulate filled polymer based Hybrid Composites' January 2021.
- + A. Sailaja - The title of the thesis was 'Optimization of friction stir processing of Ze41/SiC Magnesium Rare Earth Surface Composites', April,2021.
- + Under the guidance of Prof. N.V.V.S.Sudheer three Ph.D's were awarded by Acharya Nagarjuna University.
- + P.Anusha - The title of thesis was 'Experimental Investigation of Optimum Insulation in VCR system with Chlorodifluoromethane and Mixture of Difluoromethane and Pentafluoroethane, January-2021,
- + Suresh Babu koppula - The title of thesis was 'Effect of an Ancient Biological Noble Material as Nano Additive in IC Engine Lubricating Oil"- March-2021,
- + N. Santhi Sree "Experimental Analysis of the closed loop pulsating heat pipe with different working fluids at different fill ratios and Orientations" April - 2021.

Faculty Promotions

- + Prof.K.Ravindra was promoted as Principal on June 1,2021.
- + Prof.K.Srinivas was promoted as Vice Principal on May,3,2021.
- + Prof.K.Srinivas was promoted as Head of Department on June,1,2021.

Faculty Relieving

- + D.Bharath Prasanna relieved in April,2021.

Flipped learning is robust instruction made possible by leveraging technology to create fertile spaces for teaching and learning---Marshall