



Vishnu Institute of Technology (Autonomous) VISHNUPUR: BHIMAVARAM

FACULTY PUBLICATIONS (ME) : 2023

JOURNALS:

1. **Sudi V.S.S.**, Kupireddy K.K., Balasubramanian K., Nagireddy P.D., Experimental Study on Transition of Single Phase to Two Phase in a Natural Circulation Loop Filled with Al₂O₃ Nanofluid, Iranian Journal of Science and Technology - Transactions of Mechanical Engineering, Vol. 47, (4), PP. 1437-1447, 2023 (Scopus)
2. Boni M., Velisala V., Kattela S., **Sudheer S.V.S.**, Pullagura G., Barik D., Comparison of the Anode Side Catalyst Supports with and without Incorporation of Liquid Electrolyte Layer on the Performance of a Passive Direct Methanol Fuel Cell, International Journal of Energy Research, Vol. 2023, p.1224995, 2023 (Scopus)
3. **Francy K.A.**, Rao C.S., Optimisation of cold extrusion process parameters on AA 2024 alloy using grey relational analysis, International Journal of Materials Engineering Innovation, Vol. 14, (2), PP. 178-198, 2023 (Scopus)
4. **I. Ramu**, Battina N. Malleswararao, J. Chandra Sekhar, M. Venu¹, P. Senthil Kumar. Study on Free Vibration Analysis of a Rotating FibreGraphene-Reinforced Hybrid Polymer CompositesPre-Twist Shell. INCAS BULLETIN, Volume 15, Issue 2/ 2023, pp. 149 – 159. DOI: 10.13111/2066-8201.2023.15.2.14"(GS)

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1. Benda M.A., **Nandivelugu N.K.**, **Mangam V.**, Gamini S., Studies on Influence of Surface Modifications on the Mechanical Properties of Basalt Fiber Reinforced Epoxy Composites, AIP Conference Proceedings, Vol. 3006, (1), pp. 1-8, 2023 (Scopus)
2. Nagappa S., Niranjana T., Kotha M.N.V.S.A.S., Chinamilli N.V.S.S., **Srinivas P.**, Yoganjaneyulu G., Comparison on single point incremental forming and micro incremental forming - A review, AIP Conference Proceedings, Vol. 2810, pp.1 to 9, 2023 (Scopus)
3. **Daloji L.**, **Venkatesh M.**, **Rao N.**, **Venu M.**, Analytical Estimation of Power for a Fabricated Power Generating Train Using Rack and Pinion Mechanism, Lecture Notes in Mechanical Engineering, PP. 345-352, pp. 345-352, 2023 (Scopus) (WoS)
4. **Durga Hemanth Kumar K.**, **Daloji L.**, **Chandra Sekhar J.**, **Ramu I.**, Numerical and Experimental Investigation of the Finite Life of Low-Carbon Steel Cylindrical Notched Specimens, Lecture Notes in Mechanical Engineering, PP. 499-511, 2023 (Scopus)

5. **Vinod M., Mahesh Chakravarthi V., Venu M., Krishna D.V.**, Experimental Investigation to Enhance the Performance of Freezer with Phase Change Material, Lecture Notes in Mechanical Engineering, PP. 977-984, 2023 (Scopus) (WoS)

FACULTY PUBLICATIONS (ME) : 2022

JOURNALS :

1. Velisala V., Pullagura G., **Chinnam N.K.**, Ganta R., "Computational Fluid Dynamics Study of a Compound Flow Field for Proton Exchange Membrane Fuel Cell (PEMFC) Performance Enhancement", Journal of Thermal Science, Vol. 31, PP 2374-2384, 2022 (Scopus) (WoS)
2. Boggarapu V., Ruthik L., Gara D.K., Ojha S., Jain S., Gujjala R., Bandaru A.K., **Inala R.**, "Study on mechanical and tribological characteristics of layered functionally graded polymer composite materials", Proceedings of the Institution of Mechanical Engineers, Part E: Journal of Process Mechanical Engineering, Vol. 236, PP 1857-1868, 2022 (Scopus) (WoS)
3. Battina N.M., Chirala H.K., **Inala R.**, Kummitha O.R., Veeravalli L.N., Pericherla S.R., "Influence of coefficient of friction between punch-blank interface on formability of friction stir welded aluminum tailor welded blanks – An experimental and finite element simulation investigations", Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, Vol. 236, PP 9677-9686, 2022 (Scopus) (WoS)
4. Dattatraya Hegde N., Kiran Kumar K., **Venkata Sai Sudheer S.**, "Experimental prediction of flow boiling heat transfer coefficient Water and Copper Oxide nanofluid using ANNOVA technique", International Journal of Nano Dimension, Vol. 13, PP 296-310, 2022 (Scopus) (WoS)
5. Samuel N., Srinath A., Sharma N., **Tamma A.K.**, Shameer Basha M., "Solar organic Rankine cycle - Parametric analysis based on exergy vs energy approaches", Journal of Renewable and Sustainable Energy, Vol. 14, PP. 01-10, 2022 (Scopus) (WoS)
6. Jeyaprakash N., **Kantipudi M.B.**, Yang C.-H., "Study on Microstructure and Anti-Corrosion Property of Stainless Steel Particles Deposition on Ti-6Al-4V Substrate using Laser Cladding Technique", Lasers in Manufacturing and Materials Processing, Vol. 9, PP 214-227, 2022 (Scopus)
7. Shiao Y., **Kantipudi M.B.**, "High torque density magnetorheological brake with multipole dual disc construction", Smart Materials and Structures, Vol. 31, PP. 01-13, 2022 (Scopus) (WoS)

8. **Kothasiri A.F.**, Chalamalasetti S.R., "Investigation of Cold Extrusion of Aluminum AA 2024 Alloy using Finite Element Analysis", INCAS Bulletin, Vol. 14, PP 157-171, 2022 (Scopus)
9. Ponnusamy M., Pungaiah S.S., Prabhu M.S., Ramji B.R., **Srinivas Y.**, Periyasamy S., "Importance of Hardening Effect and Its Analysis on Diametrical Fractured Ends of Tensile Testing of Al and Steel", Advances in Materials Science and Engineering, Vol. 2022, PP. 01-10, 2022 (Scopus)
10. Chinababu M., **Krishna N.N.**, Sivaprasad K., Prashanth K.G., Rao E.B., "Evolution of microstructure and mechanical properties of LM25â€“HEA composite processed through stir casting with a bottom pouring system", Materials, Vol. 15, PP. 01-14, 2022 (Scopus) (WoS)
11. Venkataiah M., **Anup Kumar T.**, Venkata Rao K., Anand Kumar S., Dumpala R., Ratna Sunil B., "Investigation on the role of microstructure and temperature on tribological characteristics of fine-grained ZE41 Mg alloy", Tribology - Materials, Surfaces and Interfaces, Vol. 16, PP 68-75, 2022 (Scopus)
12. **Ramu I.**, Temperature-dependent 2-dimensional porous FG plates free vibration analysis using finite element approach, Incas Bulletin, 14(4):119-129 (2022), DOI: 10.13111/2066-8201.2022.14.4.10 (GS)

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2. **Pothala S.**, Raju M.V.J., **Bangarraju B.**, Lakshmi Narayana V., "Computational Analysis of a Convergent Divergent Nozzle", Lecture Notes in Mechanical Engineering, , PP 503-509, 2022 (Scopus)
3. **Sudheer S.V.S., Kumar C.H.N., Mahesh G., Prakesh C.H.B.**, "Heat Transfer Characteristics of Spherical Finned Rectangular Microchannel", Lecture Notes in Mechanical Engineering, , PP 473-481, 2022 (Scopus)
4. Krishna P.D.V.N., **Chakravarthi V.M., Vinod M., Pothala S.**, "Design and Evaluation of Manual Weeder for Dryland Crops", Lecture Notes in Mechanical Engineering, , PP 491-501, 2022 (Scopus)
5. **Bangarraju B., Srinivas P., Narasinga Rao G., Bhanuprakash C.**, "Investigation of Diesel Engineâ€™s Performance Using Nano Additives in Biodiesel Blends (B20, B30 and B40)", Lecture Notes in Mechanical Engineering, , PP 441-451, 2022 (Scopus)

6. **Daloji L., Ramu I., Rao N., Manikanta P.**, "Design and Fabrication of Automatic Vehicle for Railway Track Monitoring by Using ESP8266 Module", Lecture Notes in Mechanical Engineering, , PP 483-490, 2022 (Scopus)
7. **Bhanuteja K., Vinod M., Krishna D.V.**, "Optimization of Dynamic Capacity of Deep Groove Ball Bearing by Using Genetic Algorithm", Lecture Notes in Mechanical Engineering, , PP 329-338, 2022 (Scopus)
8. **Ramu I., Seshu K.V.G.R., Srinivas P., SenthilKumar P.**, "Influence of Drop Weight Low-Velocity Impact on Thin Panels Study by Numerical Simulation and Experimental Approach", Lecture Notes in Mechanical Engineering, , PP 281-288, 2022 (Scopus)

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1. **Sudheer S.V.S.**, Kumar K.K., Balasubramanian K., "Effect of heater and condenser orientations on fluid flow behaviour in a two-phase natural circulation loop", Proceedings of the Institution of Mechanical Engineers, Part E: Journal of Process Mechanical Engineering, Vol. 235, PP. 1718-1725, 2021, (Scopus) (WoS)
2. **Ratnakar G.G., Ramu I.**, "Design and evolution of a prosthetic socket for lower limb amputation to patient", Trends in Biomaterials and Artificial Organs, Vol. 35, PP. 277-282, , 2021, (Scopus)
3. **Kothasiri A.F.**, Chalamalasetti S.R., Peteti G., "Multiple process parameter optimization of forward extrusion process on aa 2024", International Journal of Modern Manufacturing Technologies, Vol. 13, PP. 63-75, 2021, (Scopus)
4. Gubbala, Giri Ratnakar, and **Ramu Inala**. "Design and Development of Patient-Specific Prosthetic Socket for Lower Limb Amputation." Material Science, Engineering and Applications 1, no. 2 (August 25, 2021): PP. 32–42. 2021 (GS)

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1. **Vinod M., Raghuraman M., Chakravarthi V.M.**, "Experimental Investigation of Automatic Aeration Process and Condition of Aqua Ponds Monitoring System with the Help of Internet of Things", Lecture Notes in Mechanical Engineering, PP. 381-390, 2021, (Scopus)
2. **Ramya T., Venu M., Sunil Kumar K.T., Anupama Francy K.**, "Influence of Vegetable Oil Based Lubricants with Nano Particles on Surface Roughness of AISI 1020 and AA 2024 Alloy", Lecture Notes in Mechanical Engineering, PP. 163-173, 2021, (Scopus)
3. **Ramu I., Raghuraman M., Venu M.**, "Effect of Porosity and Thermal Medium on the Vibration Characteristics of Two-Dimensional FGM Plates", Lecture Notes in Mechanical Engineering, PP. 413-423, 2021, (Scopus)

4. **Raghuraman M., Ramu I.,** Chaithanya Vinay V., "Comparison of Mechanical Performance of the Various Stent Materials: A Finite Element Analysis (FEA) Approach", Lecture Notes in Mechanical Engineering, PP. 449-455, 2021, (Scopus)
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FACULTY PUBLICATIONS (ME): 2020

JOURNALS:

1. **Inala R.,** "Influence of hygrothermal environment and FG material on natural frequency and parametric instability of plates", Mechanics of Advanced Composite Structures, Vol. 7, PP. 89-101, 2020, (Scopus)

CONFERENCES:

1. **Raghuraman M., Ramu I.,** "Image Correlation Technique for Slope and Curvature of a Cantilever Beam Using Light Intensity", 1st International Conference on Emerging Trends in Mechanical Engineering, ICETME 2018 Lecture Notes in Mechanical Engineering, PP. 539-547, 2020, (Scopus)
2. **Ramu I., Raghuraman M., Seshu K.V.G.R.,** "Vibration Response of Sandwich Beam with Viscoelastic Core and FGM Face Sheets Using Finite Element Method", 1st International Conference on Emerging Trends in Mechanical Engineering, ICETME 2018 Lecture Notes in Mechanical Engineering, PP. 377-386, 2020, (Scopus)
3. **Namburi K.P.V., Kothasiri A.F., Yerubandi V.S.M.,** "Modeling and simulation of Aluminum 1100 alloy in an extrusion process", Materials Today: Proceedings, Vol. 23, PP. 518-522, 2020, (Scopus)
4. **Vinod M., Raghuraman M., Chakravarthi V.M.,** "Experimental Investigation of Paddy Grain Drying Mechanism", 1st International Conference on Emerging Trends in Mechanical Engineering, ICETME 2018, Lecture Notes in Mechanical Engineering, PP. 135-143, 2020, (Scopus)
5. **Ramu I., Raghuraman M., Venu M.,** "Influence of FGM on the Parametric Instability of Skew Plates in Thermal Environment", 1st International Conference on Emerging Trends in Mechanical Engineering, ICETME 2018, Lecture Notes in Mechanical Engineering, PP. 529-539, 2020, (Scopus)
6. **Md Riyaz S., Srinivas P., Ramu I.,** "Optimization of EDM Process Parameters on Aluminum Alloy 6082 by Using Multi-objective Genetic Algorithm", 1st International Conference on Emerging Trends in Mechanical Engineering, ICETME 2018, Lecture Notes in Mechanical Engineering, PP. 499-508, 2020, (Scopus)
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FACULTY PUBLICATIONS (ME): 2019

JOURNALS:

1. GSD Prasad, GD Ray, **M Venu**, Accreditation of Self-Financing Technical Institutions in India: A New Perspective to Improve Quality, Journal of Engineering Education Transformations, Volume 32, Pg 48-55, April 2019, google scholar <https://doi.org/10.16920/jeet%2F2019%2Fv33i2%2F137422>
2. Anantha Gopal, C. Naga Bhaskar, **Ch.Naveen Kumar** Design And Cfd Analysis Of A3D Convergent Divergent Nozzle Using Ansys Fluent, International Journal of Research Volume VIII, Issue VI, JUNE/2019, google scholar, paid.

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1. **Ramu,M.RaghuramanK.V.G.R.Seshu**,Vibration Response of Sandwich Beam with Viscoelastic Core and FGM Face Sheets Using Finite Element Method, Emerging Trends in Mechanical Engineering, Lecture Notes in Mechanical Engineering. Springer, pp. 377-386, 2019,Scopus, IF=0.55,https://doi.org/10.1007/978-981-32-9931-3_37
2. **M.Raghuraman,I.Ramu**,Image Correlation Technique for Slope and Curvature of a Cantilever Beam Using Light Intensity,Emerging Trends in Mechanical Engineering, Lecture Notes in Mechanical Engineering. Springer, pp 539-547, 2019, Scopus, IF=0.56https://doi.org/10.1007/978-981-32-9931-3_52
3. **Bhanuprakash Chebrolu**, Manjunath Taredahalli Shanmukappa, Integration of Grid Tie Solar Energy Using Bidirectional Meter for Electrical Power and to the Utility Power Grid "IJEMR Transactions, Volume08, Issue 12, Pages:172-178. <http://www.ijemr.org/downloads.php?vol=Volume-08&issue=ISSUE-12>

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2. **K Anupama Francy**, Ch Srinivasa Rao, P Gopala krishnaiah Process Parameter Optimization of Cold Forward Direct Extrusion of Al6063 alloy using DEFORM3D, proceedings of ETME-2019, 9-10 Jan 2019.

FACULTY PUBLICATIONS (ME): 2018

JOURNALS:

1. Gopala krishnaiah, Srinivasarao. Ch, **Anupama francy. K** Multiple Process Parameter Optimization of Roll Forming on High Strength Steel using TOPSIS, International Journal of Engineering & Technology, 7, (2018) 199-202
<https://www.researchgate.net/publication/329862786> Multiple Process Parameter Optimization of Roll Forming on High Strength Steel using TOPSIS
2. **N. Naga Krishna**, Study on CFF–Polyester Composites, Materials Today: Proceedings5, 1-10, 2018 Scopus, Free Publication <https://doi.org/10.1016/j.matpr.2017.11.548>
3. **N. Naga Krishna**, Study on Influence of Heat Treatment on Mechanical Properties and Machinability during CNC Turning of AA6061 Alloy, Materials Science & Engineering 377, 1-6, 2018, Scopus, Free Publication, https://ui.adsabs.harvard.edu/link_gateway/2018MS&E..377a2025N/doi:10.1088/1757-899X/377/1/012025
4. **Ramu I, Narendra M and Venu M**, Effect of hygrothermal environment on free vibration characteristics of FGM plates by finite element approach, Materials Science & Engineering, 377-012021, 2018, Scopus, Free Publication doi:10.1088/1757-899X/377/1/012021
5. **Ramu I, P Srinivas and K Vekatesh**, Taguchi based grey relation analysis for optimization of machining parameters of CNC turning steel 316, Materials Science & Engineering, 377-012078, 2018 Scopus, Free Publication, doi:10.1088/1757-899X/377/1/012078
6. **I Ramu, K VGR Seshu and M Venu**, Natural frequency of skew FGM plates using finite element method, Materials Science & Engineering, 455(2018)012024, Scopus, Free Publication, doi:10.1088/1757-899X/455/1/012024

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4. **K. Rajendra**, “Experimental Investigation on Performance Characteristics of

FourStroke single Cylinder Petrol Engine Using a Pre-Heating Set-Up and Fuel Blends”. International Conference on Advances in Design, Materials, Manufacturing & Energy System[ADMMES-2018],15-Sept-2018, MALLAREDDY ENGINEERING COLLEG, Hyderabad, India.

FACULTY PUBLICATIONS (ME): 2017

JOURNALS:

1. **N. Naga Krishna**, “Mechanical Anisotropy and Microstructural Changes during Cryorolling of Al-Mg-Si alloy”, Materials Characterization, Vol. 107, September 2015, 302 – 308. **(SCI)**
2. **Ramu Inala**, Parametric Instability Of Rotating Cantilever Functionally Graded Material Plates, International Journal Of Scientific Research, 6(7), pp.488-494, 2017.
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1. Prasad K.E.V. and **Anupama Francy K.**, (2016). Experimental Evaluation of Lubricant Effect on Cold Forward Extrusion of AA6063. International Conference on Mechanical & Production Engineering (ICMPE), 16th October 2016, Hyderabad.

BOOK CHAPTERS:

7. Title: Copper Nanocomposites: Synthesis, Characterization and Properties Authors: **Mangam Venu**, Siddhartha Das Publisher: LAMBERT Academic Publishing, Germany ISBN No: 978-3-659- 96233-2 Year of Publication: 2016.