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Publications:

- 1. Krishnan T, **Jayabal** S, and Krishna VN, "Tensile, flexural, impact, and hardness properties of alkaline-treated Sunnhemp fiber reinforced polyester composites Journal of Natural Fibers, 2018 Taylor & Francis,: 1-11.
- 2. Daniel Lawrence, I., **Jayabal** S and Thirumal P, Indoor air quality investigations in hospital patient room, International Journal of Biomedical Engineering and Technology, vol. 27, no.1/2,pp.124-138
- 3. Sankar, B. V., Lawrence, I. D., & Jayabal, S. (2018). Experimental Study and Analysis of Weld Parameters by GRA on MIG Welding. Materials Today: Proceedings, 5(6), 14309-14316.
- 4. S. Ananthakumar, S. **Jayabal**& P. Thirumal, Investigation on performance, emission and combustion characteristics of variable, compression engine fuelled with diesel, waste plastics oil blends, Journal of the Brazilian Society of Mechanical Sciences and Engineering volume 39, issue 1, pp. 19-28, 2017.
- 5. R.Prithivirajan and S.**Jayabal**, Hybrid Bio Composites From Agricultural Residues: Mechanical, Water Absorption and TribologicalBehaviors", Journal of Polymer Engineering (JPOLYENG), Accepted for publication volume 36, issue 7, pp. 663-671, 2016.
- 6. G.Bharathiraja, S.**Jayabal** and S.Kalyanasundaram, Gradient based Intuitive search intelligence for the optimization of Mechanical behaviors in hybrid bio particles impregnated coir-polyester composites, Journal of Vinyl and Additive Technology, Accepted for publication Doi:10.1002/vnl.21511, 2015.
- 7. I.Daniellawrence, S.**Jayabal**, P.Thirumal, D.Madhanraj, Experimental Investigation And Optimization Of Comfort Indoor Air Quality In Commercial Bedrooms,International Journal of Applied Engineering Research, Accepted For Publication, Vol. 10,No.57(2015), pp.394-400.

- 8. I.Daniellawrence, G.Kaviprakash, C.Rameshkannan, S.**Jayabal** Experimental Investigation And Optimization Of Machining Parameters On AISI 449 And EN 19 In Turning Using GRA and RSM, International Journal of Applied Engineering Research, Vol. 10, No.57(2015), pp.205-211.
- S.Rajamuneeswaran, S. Jayabal, A. Elango, S. Kalyana Sundaram and N.S. Balaji Study
 On Impact Behaviour Of Chitosan Particle Impregnated Coir Fiber
 Reinforced Polyester Composites, International Journal of Applied Engineering
 Research, Vol. 10, No. 57(2015), pp. 412-416.
- 10. I.Ganeshraja,I.DanielLawrence,S.**Jayabal**,B.Rajmohan, Prediction of mechanical characteristics on aluminium based reinforcement with SiC and TiO₂, International Journal of Applied Engineering Research,Vol. 10,No.51(2015), pp.654-657.
- 11. I.Daniel Lawrence, S.**Jayabal**, P.Thirumal, and K P S Peer Mohamed Sait, Experimental Investigation and Optimization of Comfort Indoor Air Quality in Theatre Hall, International Journal of Applied Engineering Research Vol. 10,No.51(2015), pp.4081-4086
- 12. I. Daniel Lawrence, S. **Jayabal** and G. Selvakumar, Particle Concentrations and Effectiveness of Natural Fibre Air Filter in Split Air Conditioner System, International Journal of Applied Engineering Research Vol. 10,No.51(2015), pp.4087-4092.
- 13. S. KalyanaSundaram, S. Jayabal, K. Nijandhan Influence Of Fiber Pretreatment On The Mechanical Properties Of Dharbai Fiber Reinforced Polyester composites, Cellulose Chemistry and Technology, Accepted For Publication volume 49, issue 1, pp. 61-64, 2015.
- S.KalyanSundaram and S.Jayabal, The Effect of Fiber Treatment on the Mechanical Properties of Christmas Palm Fiber-Polyester Composites, Applied Mechanics and Materials, 467, pp.208-214,2014
- 15. R Ramprasath, S **Jayabal** S Sathiyamurthy and R.Prithivirajan, Statistical Analysis and Fractography Study of Tensile Beaviour in Bio Particulated Coir-Vinyl Ester Composites, Advanced Materials Research,vol. 984, pp. 214-220. 2014.
- 16. N.S.Balaji, S.**Jayabal**, S. KalyanaSundaram, S.Rajamuneeswaran and P.Suresh, Delamination Analysis in Drilling of Coir-Polyester Composites using Design of Experiments, Advanced Materials Research, vol. 984, pp. 185-193. 2014.

- 17. S.Rajamuneeswaran, S.**Jayabal**, N.S.Balaji and A.Karthikeyan, Crab carapace particles filled coir reinforced polyester composites; Impact strength and Fractography study, International Journal of ChemTech Research, Vol.6, No.3, pp 1898-1900, 2014.
- 18. Thirumal P, Amirthagadeswaran K Sand **Jayabal** S ,Optimization Of Indoor Air Quality Characteristics In An Air Conditioned Car Using Multi Objective Genetic Algorithm, , Arabian Journal for Science and Engineering, November Volume 39, Issue 11, pp 8307-8317,2014,.
- G.Bharathiraja, S.Jayabal, S.Kalyana Sundaram, S.Rajamuneeswaran, B.H. Manjunath, Mechanical Behaviors Of Rice Husk And Boiled Egg Shell Particles Impregnated Coir-Polyester Composites, Macromolecular Symposia, Accepted For Publication Doi: 10.1002/masy, 201400245.
- 20. NS Balaji and S **Jayabal**, Artificial Neural Network modelling of Mechanical behaviours of Zea fiber-Polyester Composites Proceedings of the Institution of Mechanical Engineers, Part E: Journal of Process Mechanical Engineering.2014 Doi: 10.1177/0954408914539939, 0 (0) 1-11.
- 21. R.Ramprasath, S.**Jayabal**, Particle Swarm and Simulated Annealing based Intuitive Search Optimization of Flexural Behaviors in bio Particles Impregnated Coir Fiber Vinyl Ester Composites, Polymer Composites, 2014,Doi: 10.1002/pc.23349.
- 22. Thirumal P, Amirthagadeswaran K S, Jayabal S, Fuzzy Rule Based Prediction of IAQ Characteristics In Air conditioned Car, Iranian Journal Of Science & Technology, Transactions Of Mechanical Engineering, Accepted For Publication volume 28, issue 5, pp. 1899-1907, 2014.
- 23. S.Rajamuneeswaran and S.**Jayabal**, A Lexicographic Multiobjective Genetic Algorithm for Optimization of Mechanical Properties of Crab Carapace Impregnated Coir Polyester Composites, Polymer Composites, 2014,Doi: 10.1002/pc.23242 volume 37, issue 3, pp. 844-853
- 24. S KalyanaSundaram and S **Jayabal** Regression modeling and particle swarm optimization of mechanical properties of potassium hydroxide pretreated Dharbai fiberreinforced polyester composites ProcIMechE Part L:J Materials: Design and Applications, 2014, DOI: 10.1177/1464420714547551, 0 (0) 1-11.
- 25. S.KalyanaSundaram and S.**Jayabal**, Mechanical Properties of Potassium Hydroxide Pre-Treated Christmas Palm Fiber Reinforced Polyester Composites: Characterization

- study, Modeling and Optimization, Journal of Polymer Engineering (JPOLYENG), volume 34, issue 9, pp. 839-849 (2014).
- 26. S.Velumani, P.Navaneetha Krishnan, S.**Jayabal**, Mathematical modeling and optimization of mechanical properties of short coir fiber-reinforcement vinyl ester composite using Genetic Algorithm method, Mechanics of Advanced Materials and Structures, Volume 21, Issue 7, pp.559-565, 2014.
- 27. S.Velumani, P.Navaneetha Krishnan, S.**Jayabal** and R.Ramprasath, Regression modeling and optimization of cutting parameters through Nelder mead simplex search and CCFD during drilling of Sisal-Glass/Vinyl ester composites, International Journal of Machining and Machinability of Materials.vol. 14 No. 1, pp. 1-23, 2013.
- K.Ramesh, T.Alwarsamy and S.Jayabal, Prediction of Cutting Process Parameters in boring operations using Artificial Neural Network, Journal of Vibration and control, Online on July 24,2013. Doi: 1077546313495253, volume 21, issue 6, pp. 1043-1054.
- 29. K.Ramesh, T.Alwarsamy and S.**Jayabal**, ANN Prediction and RSM optimization of Cutting Process Parameters in boring operations using Impact dampers, Journal of Vibro engineering, volume 14, issue 3, pp. 1175-16, 2013.
- 30. Ramesh, K., Alwarsamy, T. and **Jayabal**, S. "Investigation of chatter stability in boring tool and tool wear prediction using neural network", International Journal of Machining and Machinability of Materials. vol. 46 No. 1, pp. 47-70, 2013.
- 31. S.**Jayabal**, S.Velumani, P.Navaneetha Krishnan and K.Palanikumar, Mechanical and Machinability Behaviors of Woven Coir Fiber-Reinforced Polyester Composite, Fibers and Polymers. vol. 14 No. 9, pp. 1505-1514, 2012,
- 32. Sathiyamurthy, S., Syed Abu Thaheer, A. and **Jayabal**, S, Mechanical behaviors of calcium carbonate impregnated short coir fiber-reinforced polyester composites, Proceedings of the Institution of Mechanical Engineers, Part L: Journal of Materials Design and Applications, SAGE Publications, vol. 226 No. 1,pp. 52-60,2012.
- 33. **Jayabal**, S. and Natarajan, U. "Influence of fiber parameters on tensile, flexural and impact properties of nonwoven coir- polyester composites", International Journal of Advanced Manufacturing Technology, Vol. 54, pp. 639-648, 2011.
- 34. **Jayabal**, S., Natarajan, U., and Sekar, U. "Regression modeling and optimization of machinability behaviour of glass-coir-polyester hybrid composite using factorial

- design methodology", International Journal of Advanced Manufacturing Technology, Vol. 55, pp. 263-273, 2011.
- 35. **Jayabal**, S. and Natarajan, U. "Modelling and optimisation of thrust force, torque and tool wear in drilling of coir fibre reinforced composites using response surface method", International Journal of Machining and Machinability of Materials, Vol. 9,pp. 149-172,2011.
- 36. **Jayabal**, S., Natarajan, U., and Murugan, M. "Mechanical Property Evaluation of Woven Coir and Woven Coir-Glass Fiber Reinforced Polyester Composites", Journal of Composite Materials, vol. 45 No. 22, pp. 2279-2285, 2011.
- 37. **Jayabal**, S. and Natarajan, U. "Optimization of thrust force, torque, and tool wear in drilling of coir fiber reinforced composites using Nelder- mead and genetic algorithm methods", International Journal of Advanced Manufacturing Technology, Vol. 51,pp. 371-381,2010.
- 38. S.KalyanaSundaram, S.**Jayabal**, N.S.Balaji and G.Bharathiraja, Study of chemical and mechanical properties of Dharbai fiber reinforced polyester composites, Advanced Composite Materials, Accepted for Publication.
- 39. R.Ramprasath, S.**Jayabal**and S.Satiyamurthy, Mechanical Behaviors Of Boiled Egg Shell Particulated Coir-Vinyl Ester Composites, Applied Polymer Composite, Accepted For Publication.
- 40. N.S.BalajiS.Jayabal and S.KalayanaSundaram, Study on Mechanical Properties of Corn-Cellulose Fibers Reinforced Polyester Composites, Macromolecular Symposia, Accepted For Publication
- 41. R.Ramprasath, S. Jayabal, S. Kalyana Sundaram, G.Bharathiraja, Yashwant S. Munde, Investigation On Impact Behavior Of Rice Husk Impregnated Coirvinyl Ester Composites, Macromolecular Symposia, Accepted For Publication
- 42. R. Prithivirajan, S. **Jayabal**, G. Bharathiraja, Bio-Based Composites From Waste Agricultural Residues: Mechanical and Morphological Properties, Cellulose Chemistry and Technology, Accepted For Publication.
- 43. S. Rajamuneeswaran, S. Jayabal, S. KalyanaSundaram, N.S. Balaji, P. Ramkumar, Effect of Chitosan particle addition on the tensile and flexural strength of Coir fiber reinforced Polyester Composites, Applied Mechanics and Materials, Vol. Vol. 813 -814,pp. 30-33.

- 44. R.Hemachandran, M.Pugazhvadivuand S.**Jayabal**, Development of Electroless Ni-P Coatings on Sisal Fiber, Fibers and Textiles in Eastern Europe.
- 45. Roseline, S., Paramasivam, V., **Jayabal**, S.Evaluation of structure and mechanical properties of zirconia reinforced aluminium matrix composites, Journal of Computational and Theoretical Nanoscience, volume 15(3), pp. 830-838, 2018.
- 46. Ramesh G, Subramanian K, Sathiyamurthy S, **Jayabal** S. Study on influence of fiber length and fiber weight proportion in mechanical behavior of Calotropis giganteafiber-epoxy composites. POLYMER COMPOSITES. 2020 Aug 17.
- 47. K. Ramadoss, R. Elansezhian, S. Jayabal, Optimization of controlling factors on tool wear when coolant mixed with additives on turning of mg-y alloy, International Journal of Engineering and Advanced Technology (IJEAT) ISSN: 2249 8958, Volume-7 Issue-6, August 2018
- 48. Study of mechanical and thermal behaviours of zea-coir hybrid polyester composites N.S. Balaji a, ↑ , S. Chockalingam b , S. Ashokraj c , D. Simson a , S. **Jayabal** d, Materials Today: Proceedings
- 49. Pradeep, P., Kumar, P.S.S.R., Daniel, L.I., Jayabal, S., CHARACTERIZATION OF PARTICULATEREINFORCED ALUMINIUM 7075 / TIB2 COMPOSITES, International Journal of Civil Engineering and Technology (IJCIET) Volume 8, Issue 9, September 2017, pp. 178–190, Article ID: IJCIET_08_09_020
- 50. Krishnan T, **Jayabal** S, Naveen Krishna V and Senthilsivam N, Compressive, Wear and Water Absorption Behaviours of Sunnhemp-Polyester Composites, Journal of Manufacturing Engineering, September 2018, Vol. 13, Issue. 3, Pp 130-135
- 51. Velusamy K, Navaneethakrishnan P, **Jayabal** S and Elumalai P, Characterization of Calotropis Gigantea Fiber and its Composites, Journal of Manufacturing Engineering, September 2018, Vol. 13, Issue. 3, Pp 176-181
- 52. Hemachandran R , Pugazhvadivu M and **Jayabal** S ,Thermal and Machinability Behaviors of Uncoated and Ni-P Coated Sisal Fiber Reinforced Epoxy Composites, journal of Manufacturing Engineering, September 2018, Vol. 13, Issue. 3, Pp 171-175
- Valar Jothi P , Jayabal S , Kishore Kumar J and Sathiyamurthy S, Experimental investigation on mechanical and thermal characteristics of fiber-polymer composites, Journal of Manufacturing Engineering, September 2018, Vol. 13, Issue. 3, Pp 152-157

.

- 54. Elumalai P, Sivagami S.M and **Jayabal** S, Mechanical Properties of Natural Fiber Reinforced Polymer Composites: An Overview, Journal of Manufacturing Engineering, June 2018, Vol. 13, Issue. 2, pp 101-105.
- 55. Vignesh V and **Jayabal** S, Optimization of Axial Load Characteristics of Ramie Epoxy Composites Using Response Surface Methodology, Journal of Manufacturing Engineering, June 2018, Vol. 13, Issue. 2, pp 088-094.
- 56. S. **Jayabal**, R.Ramprasath, R.Prithivirajan, S. &K.Christal, Mechanical Performance of Bio Particulated Natural Green Husk Coir Fiber-Vinyl Ester Composites, International Journal of ChemTech Research volume 9, No. 03, pp. 65-69, 2016.
- 57. R.Hemachandran, M.Pugazhvadivuand S. **Jayabal**, Optimization of Tensile and Impact Behaviours of Randomly Oriented Short Sisal Fiber Reinforced Epoxy Composites Using Response Surface Methodology, International Journal of ChemTech Research volume 9, issue 7, pp. 660-665, 2016.
- 58. R.Prithivirajan, S. **Jayabal**, S.KalayanaSundaram and A. Pravin Kumar, Hybrid Bio Composites from Agricultural Residues: Mechanical and Thickness Swelling Behavior, International Journal of ChemTech Research volume 9, No. 03, pp. 609-615, 2016.
- 59. R. Ramprasathand S.**Jayabal**, Optimization of impact behavior of bio particulated coir-vinyl ester composites using Simulated Annealing with post analysis, Indian Journal of Fibre and Textile Research, Accepted for publication volume 40, pp. 380-385, 2015.
- 60. S.KalyanaSundaram and S.**Jayabal**, Investigation on extraction procedure and tensile properties of Dharbai and Christmas palm natural fibers, Indian Journal of Fibre and Textile Research, Accepted for publication volume 40, pp. 108-111, 2015.
- 61. N. S. Balaji, S. Jayabal, S. Kalyana Sundaram, A Neural Network Based Prediction Modeling for Machinability Characteristics of Zea Fiber-Polyester Composites, Transactions of the Indian Institute of Metals, Accepted for Publication.
- 62. S. **Jayabal**,G. Bharathiraja, Statistical Analysis and Particle Swarm Based Optimization of Mechanical Properties of Rice Husk and Termite Mound Soil Impregnated Coir–Polyester Composites, Transactions of the Indian Institute of Metals, Accepted for Publication.

63. Christal.K, Padmavathy.S, SharmilaDevi.G, **Jayabal**.S, Quadratic-conjugate-global criterion for optimization of mechanical behaviors of bio particulated coir-polyester composites, Pakistan Journal of Biotechnology, ISSN: 2312-7791, Vol - 14, pp 8 -11