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List of Publications for last 5 years

1. Ramesh M., Palanikumar K., Hemachandra Reddy K., Evaluation of Mechanical and Interfacial Properties of Sisal/Jute/Glass Hybrid Fiber Reinforced Polymer Composites,69,10,1851-1859,2016;10.1007/s12666-016-0844-5
2. Jeyasekaran A.S., Kumar K.P., Rajarajan S., Numerical and experimental analysis on tensile properties of banana and glass fibers reinforced epoxy composites,41,11,1357-1367,2016;10.1007/s12046-016-0554-z
3. Palanikumar K., Ramesh M., Hemachandra Reddy K., Experimental investigation on the mechanical properties of green hybrid sisal and glass fiber reinforced polymer composites,13,3,321-331,2016;10.1080/15440478.2015.1029192
4. Dhandapani S., Rajmohan T., Palanikumar K., Charan M., Synthesis and characterization of dual particle (MWCT+B4C) reinforced sintered hybrid aluminum matrix composites,34,3,255-262,2016;10.1080/02726351.2015.1069431
5. Palanikumar K., Srinivasan T., Rajagopal K., Latha B., Thrust Force Analysis in Drilling Glass Fiber Reinforced/Polypropylene (GFR/PP) Composites,31,5,581-586,2016;10.1080/10426914.2014.961478
6. Vijaya Bhaskar S., Rajmohan T., Palanikumar K., Bharath Ganesh Kumar B., Synthesis and Characterization of Multi Wall Carbon Nanotubes (MWCNT) Reinforced Sintered Magnesium Matrix Composites,97,1,59-67,2016;10.1007/s40033-015-0074-8
7. Ramesh M., Palanikumar K., Reddy K.H. Influence of fiber orientation and fiber content on properties of sisal-jute-glass fiber-reinforced polyester composites,133,6,2016;10.1002/app.42968
8. Palanikumar K., Valarmathi T.N. Experimental Investigation and Analysis on Thrust Force in Drilling of Wood Composite Medium Density Fiber board Panels,40,1,391-400,2016;10.1007/s40799-016-0044-6

9. Selvamani S.T., Premkumar S., Vigneshwar M., Hariprasath P., Palanikumar K., Influence of carbon nano tubes on mechanical, metallurgical and tribological behavior of magnesium nanocomposites, 5, 3, 326-335, 2017; 10.1016/j.jma.2017.08.006
10. Mudhukrishnan M., Hariharan P., Palanikumar K., Latha B., Tool materials influence on surface roughness and oversize in machining glass fiber reinforced polypropylene (GFR-PP) composites, 32, 9, 988-997, 2017; 10.1080/10426914.2016.1221098
11. Bharat K.R., Abhishek S., Palanikumar K., Mechanical Property Analysis on Sandwich Structured Hybrid Composite Made from Natural Fibre, Glass Fibre and Ceramic Fibre Wool Reinforced with Epoxy Resin, 205, 1, 2017; 10.1088/1757-899X/205/1/012015
12. Rajmohan T., Sathishkumar S.D., Palanikumar K., Effect of a nanoparticle-filled lubricant in turning of AISI 316L stainless steel (SS), 35, 2, 201-208, 2017; 10.1080/02726351.2016.1146812
13. Palani Kumar K., Shadrach Jeya Sekaran A., Pitchandi K., Investigation on mechanical properties of woven alovera/sisal/kenaf fibres and their hybrid composites, 40, 1, 117-128, 2017; 10.1007/s12034-016-1343-3
14. Srinivasan T., Palanikumar K., Rajagopal K., Latha B., "Optimization of delamination factor in drilling GFR polypropylene composites", 32, 2, 226-233, 2017; 10.1080/10426914.2016.1151038
15. Umanath K., Palanikumar K., Fracture surface analysis of friction welded Ti-6A-4V grade titanium alloy joints, 9, Special Issue 2, 930-937, 2017.
16. Umanath K., Palanikumar K., Metallurgical analysis of friction welded TI-6A-4V grade titanium alloy joints, 9, Special Issue 2, 1418-1424, 2017.
17. Devi G.R., Palanikumar K., Evaluation of Thrust force in Drilling Woven roving Glass fibre reinforced Aluminium Sandwich laminates with TiAlN coated drill using Taguchi analysis, 197, 1, 2017; 10.1088/1757-899X/197/1/012055
18. Ramesh M., Palanikumar K., Reddy K.H., Plant fibre based bio-composites: Sustainable and renewable green materials, 79, 5, 558-584, 2017; 10.1016/j.rser.2017.05.094
19. Venkatesan M., Palanikumar K., Rajendra Boopathy S., Experimental investigation and analysis on the wear properties of glass fiber and CNT reinforced hybrid polymer composites, 25, 5, 963-974, 2018; 10.1515/secm-2017-0068
20. Anand G., Alagumurthi N., Palanikumar K., Venkateshwaran N., Elansezhain R., Influence of drilling process parameters on hybrid vinyl ester composite, 33, 12, 1299-1305, 2018; 10.1080/10426914.2018.1453161

21. Devi G.R., Palanikumar K., Mechanical Properties Evaluation of Unidirectional Glass Fibre Reinforced Aluminium Sandwich Laminate,10,5,2329-2340,2018;10.1007/s12633-018-9768-5
22. Natrayan L., Senthil Kumar M., Palanikumar K. Optimization of squeeze cast process parameters on mechanical properties of Al₂O₃/SiC reinforced hybrid metal matrix composites using taguchi technique,5,6,2018;10.1088/2053-1591/aac873
23. R. Anbusagar N.R., Palanikumar K., Nanoclay Addition and Core Materials Effect on Impact and Damage Tolerance Capability of Glass Fiber Skin Sandwich Laminates,10,3,769-779,2018;10.1007/s12633-016-9529-2
24. Selvamani S.T., Vigneshwar M., Palanikumar K., Jayaperumal D. The corrosion behavior of fully deformed zone of friction welded low chromium plain carbon steel joints in optimized condition,40,5,2018;10.1007/s40430-018-1129-1
25. Prabhakar K., Debnath S., Ganesan R., Palanikumar K., A review of mechanical and tribological behaviour of polymer composite materials,344,1,2018;10.1088/1757-899X/344/1/012015
26. Anand G., Alagumurthi N., Elansezhian R., Palanikumar K., Venkateshwaran N., Investigation of drilling parameters on hybrid polymer composites using grey relational analysis, regression, fuzzy logic, and ANN models,40,4,2018;10.1007/s40430-018-1137-1
27. Anbusagar N.R.R., Palanikumar K., Ponshanmugakumar A., Preparation and properties of nanopolymer advanced composites: A review,28-73,2018;10.1016/B978-0-08-102262-7.00002-7
28. Vigneshwar M., Selvamani S.T., Hariprasath P., Palanikumar K., Analysis of Mechanical, Metallurgical and Fatigue Behavior of Friction Welded AA6061-AA2024 Dissimilar Aluminum Alloys in Optimized Condition,5,2,7853-7863,2018;10.1016/j.matpr.2017.11.466
29. Umanath K., Palanikumar K., Evaluation of mechanical performance of friction welded AISI304L grade stainless steel joints,25,43924,419-429, 2018; 10.1504/IJHVS.2018.094832
30. Kathirvel M., Kumar K.P., Diaz P.M., Experimental analysis on surface roughness in turning hybrid metal matrix (6061Al+SiC+Gr) composites,22,1,341-356,2018
31. Dhandapani S., Rajmohanr T., Vijayan D., Palanikumar K., Multi response optimisation of machining parameters in EDM of dual particle (MWCNT + B₄C) reinforced sintered composites,20,5,425-446,2018;10.1504/ijmmm.2018.096048

32. Mudhukrishnan M., Hariharan P., Palanikumar K., Latha B., Optimization and sensitivity analysis of drilling parameters for sustainable machining of carbon fiber reinforced polypropylene composites, 32, 11, 1485-1508, 2019; 10.1177/0892705718799816
33. Palanikumar K., Eaben Rajkumar S., Pitchandi K., Influence of Primary B4C Particles and Secondary Mica Particles on the Wear Performance of Al6061/B4C/Mica Hybrid Composites, 5, 3, 2019; 10.1007/s40735-019-0267-z
34. Radhakrishnan E., Kumaraswamidhas L.A., Palanikumar K., Muruganandam D., Strength and hardness studies of C44300 tube to AA7075-T651 tube plate threaded and unthreaded dissimilar joints fabricated by friction welding process, 8, 4, 3424-3433, 2019; 10.1016/j.jmrt.2019.06.008
35. Rajkumar S.E., Palanikumar K., Kasiviswanathan P., Influence of mica particles as secondary reinforcement on the mechanical and wear properties of al/b4c/mica composites, 9, 4, 299-309, 2019; 10.1166/mex.2019.1497
36. Palanikumar K., Subbiah V., Bio Caryota Fiber Reinforced Polymer Composites: Mechanical Properties and Vibration Behavior Analysis, 16, 3, 480-491, 2019; 10.1007/s42235-019-0039-y
37. Vasanthkumar P., Senthilkumar N., Palanikumar K., Rathinam N., Influence of seashell addition on thermo-mechanical properties of nylon 66 polymer matrix composite, 22, 1, 25-31, 2019; 10.14447/jnmes.v22i1.a06
38. Padmavathi K.R., Ramakrishnan R., Palanikumar K., Wear properties of sicp and tio2p reinforced aluminium metal matrix composites, 26, 1, 51-58, 2019
39. Das S., Chandrasekaran M., Samanta S., Kayaroganam P., Paulo Davim J., Fabrication and tribological study of AA6061 hybrid metal matrix composites reinforced with SiC/B4C nanoparticles, 71, 1, 83-93, 2019; 10.1108/ILT-05-2018-0166
40. Palanikumar K., Editorial preface: A Special issue on Advances in Materials, Manufacturing and Applied Sciences, 16, 243-247, 2019; 10.1016/j.matpr.2019.05.085
41. Vijayakumar S., Palanikumar K., Mechanical property evaluation of hybrid reinforced epoxy composite, 16, 430-438, 2019; 10.1016/j.matpr.2019.05.111
42. Shadrach Jeya Sekaran A., Palani Kumar K., Study on drilling of woven sisal and Aloe vera natural fibre polymer composite, 16, 640-646, 2019; 10.1016/j.matpr.2019.05.140

43. Ramya Devi G., Palanikumar K., Analysis on drilling of woven glass fibre reinforced aluminium sandwich laminates, 8, 1, 1024-1035, 2019; 10.1016/j.jmrt.2018.06.021
44. Srithar A., Palanikumar K., Durgaprasad B., Experimental investigation and surface roughness analysis on hard turning of AISI D2 steel using polycrystalline cubic boron nitride (PCBN), 16, 1061-1066, 2019; 10.1016/j.matpr.2019.05.196
45. Ramu P., Jaya Kumar C.V., Palanikumar K., Mechanical characteristics and terminological behavior study on natural fiber nano reinforced polymer composite - A review, 16, 1287-1296, 2019; 10.1016/j.matpr.2019.05.226
46. Dhanasekar J., Sengottuvel P., Palanikumar K., Implementation of effective fuel saving methodology for turbines using air drag in vehicles, 16, 421-429, 2019; 10.1016/j.matpr.2019.05.110
47. Anbusagar N.R.R., Palanikumar K., Ramulu P.J., Study of damage mechanism on OMT nanoclay polymer hybrid sandwich laminates, 16, 262-267, 2019; 10.1016/j.matpr.2019.05.088
48. Bosco M.A.J., Palanikumar K., Durga Prasad B., Assessment and analysis of roundness error in drilling GFRP-armour steel sandwich composites, 16, 999-1005, 2019; 10.1016/j.matpr.2019.05.188
49. Mudhukrishnan M., Hariharan P., Palanikumar K., Delamination analysis in drilling of carbon fiber reinforced polypropylene (CFR-PP) composite materials, 16, 792-799, 2019; 10.1016/j.matpr.2019.05.160
50. Venkatesan M., Palani Kumar K., Rajendra Boopathy S., Analysis of toughness in multi-walled carbon nano tubes for resin and resin glass fiber composites, 16, 367-373, 2019; 10.1016/j.matpr.2019.05.103
51. Raja V.K.B., Palanikumar K., Sai A.S., Goud B.V., Pitting corrosion studies on Ti6Al4V alloy weldments in marine environment, 48, 8, 1179-1182, 2019
52. Vigneshwar M., Selvamani S.T., Nikhil M., Palanikumar K., Some studies on tribological behavior of friction welded hybrid metal matrix nanocomposites, 16, 1182-1187, 2019; 10.1016/j.matpr.2019.05.212
53. Palanikumar K., AshokGandhi R., Raghunath B.K., Jayaseelan V., Role of calcium carbonate(CaCO_3) in improving wear resistance of polypropylene(PP) components used in automobiles, 16, 1363-1371, 2019; 10.1016/j.matpr.2019.05.237

54. Prem Kumar S., Selvamani S.T., Vigneshwar M., Palanikumar K., Developing an empirical relationship to predict maximum strength on friction stir welded (MG+ CNT) nanocomposites,16,1152-1157,2019;10.1016/j.matpr.2019.05.208
55. Vigneshwar M., Selvamani S.T., Tarun K., Palanikumar K., A novel approach for joining armor grade AA7075 metal matrix nano composites using various welding processes,16,1175-1181,2019;10.1016/j.matpr.2019.05.211
56. Arputhabalan J., Palanikumar K., Roche Adaikalaraj S., Sukan Priyan M., Investigation of glass fiber influence on mechanical characteristics and resistance to water absorption of natural fiber reinforced polyester composites,16,,843-852,2019;10.1016/j.matpr.2019.05.167
57. Prabhakar K., Debnath S., Anwar M., Palanikumar K., Experimental Analysis on the Effect of Surface Treatment of Glass Fibers & Nanoclay on Mechanical Properties of Glass Fiber Reinforced Polymer Nanocomposites,495,1,2019;10.1088/1757-899X/495/1/012091
58. Tamang S.K., Chandrasekaran M., Palanikumar K., Arunachalam R.M., Machining performance optimisation of mql-assisted turning of inconel-825 superalloy using ga for industrial applications,21,43862,43-64,2019;10.1504/ijmmm.2019.098066
59. Hariprasath P., Vijayakumar V., Selvamani S.T., Vigneshwar M., Palanikumar K., Some studies on waste animal tallow biodiesel produced by modified transesterification method using heterogeneous catalyst,16,1271-1278,2019;10.1016/j.matpr.2019.05.224
60. Dilip Raja N., Selvamani S.T., Vigneshwar M., Palanikumar K., Velu R., Sensitivity analysis of friction stir welded aluminum based high strength metal matrix composite joints,16,1279-1286,2019;10.1016/j.matpr.2019.05.225
61. Selvamani S.T., Vigneshwar M., Nikhil M., Hariharan S.J., Palanikumar K., Enhancing the fatigue properties of friction welded AISI 1020 grade steel joints using post weld heat treatment process in optimized condition,16,1251-1258,2019;10.1016/j.matpr.2019.05.222
62. Lilly Mercy J., Prakash S., Palanikumar K., Akshay Kumar B., Venugopal Reddy D., Comparison & Multiresponse optimisation of drilling characteristics of bovine bones with varying density,16,918-926,2019;10.1016/j.matpr.2019.05.177
63. Hariharan S.J., Vigneshwar M., Selvamani S.T., Shanmugam K., Palanikumar K., Optimizing the plasma arc welding process parameters to attain the minimum corrosion rate in the AISI 409M grade ferritic stainless steel autogenous joints,16,1259-1270,2019;10.1016/j.matpr.2019.05.223

64. Arputhabalan J., Prabhu S., Palanikumar K., Venkatesh S., Vijay K., Assay of machining attributes in drilling of natural hybrid fiber reinforced polymer composite, 16, 1097-1105, 2019; 10.1016/j.matpr.2019.05.201
65. Hariprasath P., Selvamani S.T., Vigneshwar M., Palanikumar K., Jayaperumal D., Comparative analysis of cashew and canola oil biodiesel with homogeneous catalyst by transesterification method, 16, 1357-1362, 2019; 10.1016/j.matpr.2019.05.236
66. Prakash S., Lilly Mercy J., Palanikumar K., Teja P.V.S., Tanvir M.S., Empirical modeling of roughness parameters in drilling composites a response surface approach, 16, 1117-1123, 2019; 10.1016/j.matpr.2019.05.203
67. Ashok Gandhi R., Jayaseelan V., Raghunath B.K., Palanikumar K., Ramachandran S., Nano indentation hardness testing of PP-CNT composites, 16, 1372-1377, 2019; 10.1016/j.matpr.2019.05.238
68. Ashok Gandhi R., Jayaseelan V., Palani Kumar K., Raghunath B.K., Krishnaraj S., Effect of Carbon Nano Tubes (CNT) on Hardness of Polypropylene Matrix, 261-270, 2019; 10.1007/978-981-13-1780-4_26
69. Singh V., Chandrasekaran M., Samanta S., Palanikumar K., Welding investigation on GMAW cold metal transfer of AISI 201LN for superior weld quality, 10, 4, 1-12, 2020; 10.4018/IJMMME.2020100101
70. Siva R., Valarmathi T.N., Palanikumar K., Samrot A.V., Study on a Novel natural cellulosic fiber from Kigelia africana fruit: Characterization and analysis, 244, 2020; 10.1016/j.carbpol.2020.116494
71. Kalyan Chakaravarthy V.V., Rajmohan T., Vijayan D., Palanikumar K., Latha B., Sustainable drilling performance optimization for Nano SiC reinforced Al matrix composites, 35, 12, 1304-1312, 2020; 10.1080/10426914.2020.1772484
72. Velavan K., Palanikumar K., Analysis on sliding wear behavior of Al + B₄C + mica hybrid metal matrix composites, 10, 7, 986-997, 2020; 10.1166/mex.2020.1751
73. K. P., M. M., P. S.P., Technologies in additive manufacturing for fiber reinforced composite materials: a review, 28, 51-59, 2020; 10.1016/j.coche.2020.01.001
74. Natarajan E., Razif M.R.M., Faudzi A.A.M., Palanikumar K., Evaluation of a suitable material for soft actuator through experiments and FE simulations, 10, 2, 64-76, 2020; 10.4018/IJMMME.2020040104
75. Valarmathi T.N., Palanikumar K., Sekar S., Latha B., Investigation of the effect of process parameters on surface roughness in drilling of particleboard composite panels

using adaptive neuro fuzzy inference system,35,4,469-477,2020;10.1080/10426914.2020.1711931

76. Eaben Rajkumar S., Palanikumar K., Pitchandi K., Latha B.,Subsurface integrity studies on the drilling of Al/B4C/mica hybrid metal matrix composites,35,1,52-60,2020;10.1080/10426914.2020.1711918
77. Mudhukrishnan M., Hariharan P., Palanikumar K.,Measurement and analysis of thrust force and delamination in drilling glass fiber reinforced polypropylene composites using different drills,149,,-,2020;10.1016/j.measurement.2019.106973
78. Selvamani S.T., Velmurugan S., Balasubramanian V., Palanikumar K.,Effects of heat distribution during cold metal transfer arc welding on galvanized steel using volumetric heat source model,9,5,10097-10109,2020;10.1016/j.jmrt.2020.07.004
79. Palani Kumar K., Shadrach Jeya Sekaran A., Dinesh L., Hari Prasad D., Deepak kumar K.,Natural sisal fiber-based woven glass hybrid polymer composites for mono leaf spring: Experimental and numerical analysis,,-,2020;10.1177/1477760620918605
80. Suresh S., Elango N., Venkatesan K., Lim W.H., Palanikumar K., Rajesh S.,Sustainable friction stir spot welding of 6061-T6 aluminium alloy using improved non-dominated sorting teaching learning algorithm,9,5,11650-11674,2020;10.1016/j.jmrt.2020.08.043
81. Palani Kumar K., Keshavan D., Natarajan E., Narayan A., Ashok Kumar K., Deepak M., Freitas L.I.,Evaluation of mechanical properties of coconut flower cover fibre-reinforced polymer composites for industrial applications,2020;10.1177/1477760619895011
82. Siva R., Valarmathi T.N., Palanikumar K.,Effects of magnesium carbonate concentration and lignin presence on properties of natural cellulosic Cissus quadrangularis fiber composites,164,3611-3620,2020;10.1016/j.ijbiomac.2020.08.195

