

Elango Natarajan

List of Publications by Year in descending order

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Version: 2024-02-01

76
papers

1,160
citations

361413

20
h-index

477307

29
g-index

79
all docs

79
docs citations

79
times ranked

712
citing authors

#	ARTICLE	IF	CITATIONS
1	A review article: investigations on soft materials for soft robot manipulations. International Journal of Advanced Manufacturing Technology, 2015, 80, 1027-1037.	3.0	124
2	Non-dominated sorting modified teaching-learning-based optimization for multi-objective machining of polytetrafluoroethylene (PTFE). Journal of Intelligent Manufacturing, 2020, 31, 911-935.	7.3	44
3	Sustainable friction stir spot welding of 6061-T6 aluminium alloy using improved non-dominated sorting teaching learning algorithm. Journal of Materials Research and Technology, 2020, 9, 11650-11674.	5.8	41
4	Enhanced Multi-Objective Teaching-Learning-Based Optimization for Machining of Delrin. IEEE Access, 2018, 6, 51528-51546.	4.2	39
5	Implications on the influence of mica on the mechanical properties of cast hybrid (Al+10%B4C+Mica) metal matrix composite. Journal of Materials Research and Technology, 2021, 10, 99-109.	5.8	38
6	Enhanced Thermal Stability, Mechanical Properties and Structural Integrity of MWCNT Filled Bamboo/Kenaf Hybrid Polymer Nanocomposites. Materials, 2022, 15, 506.	2.9	31
7	Influence of SiC Nanoparticle Reinforcement on FSS Welded 6061-T6 Aluminum Alloy. Journal of Nanomaterials, 2018, 2018, 1-11.	2.7	29
8	The Effect of High Loaded Multiwall Carbon Nanotubes in Natural Rubber and Their Nonlinear Material Constants. Journal of Nanomaterials, 2017, 2017, 1-15.	2.7	28
9	IoT Based Smart Parking System for Large Parking Lot. , 2018, , .		28
10	Evaluation of mechanical properties of coconut flower cover fibre-reinforced polymer composites for industrial applications. Progress in Rubber, Plastics and Recycling Technology, 2021, 37, 3-18.	1.8	28
11	Optimization of Intervening Variables in MicroEDM of SS 316L using a Genetic Algorithm and Response-Surface Methodology. Strojnicki Vestnik/Journal of Mechanical Engineering, 2014, 60, 656-664.	1.1	27
12	Assessments of Secondary Reinforcement of Epoxy Matrix-Glass Fibre Composite Laminates through Nanosilica (SiO ₂). Materials, 2018, 11, 2186.	2.9	27
13	Prediction of surface quality and optimization of process parameters in drilling of Delrin using neural network. Progress in Rubber, Plastics and Recycling Technology, 2019, 35, 149-169.	1.8	27
14	Analysis on the fundamental deformation effect of a robot soft finger and its contact width during power grasping. International Journal of Advanced Manufacturing Technology, 2011, 52, 797-804.	3.0	26
15	Performance Analysis of Nano Silicon Carbide Reinforced Swept Friction Stir Spot Weld Joint in AA6061-T6 Alloy. Silicon, 2021, 13, 3399-3412.	3.3	26
16	A Self-Adaptive Topologically Connected-Based Particle Swarm Optimization. IEEE Access, 2018, 6, 65347-65366.	4.2	25
17	Development of Rheumatoid Arthritis Classification from Electronic Image Sensor Using Ensemble Method. Sensors, 2020, 20, 167.	3.8	25
18	Hybrid Deep Learning Model for Fault Detection and Classification of Grid-Connected Photovoltaic System. IEEE Access, 2022, 10, 13852-13869.	4.2	25

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19	Experimental investigations of skin-like material and computation of its material properties. International Journal of Precision Engineering and Manufacturing, 2014, 15, 1909-1914.	2.2	24
20	A review on graph search algorithms for optimal energy efficient path planning for an unmanned air vehicle. Indonesian Journal of Electrical Engineering and Computer Science, 2019, 15, 743.	0.8	24
21	Drilling Parameters Analysis on In-Situ Al/B4C/Mica Hybrid Composite and an Integrated Optimization Approach Using Fuzzy Model and Non-Dominated Sorting Genetic Algorithm. Metals, 2021, 11, 2060.	2.3	24
22	Optimization of Processing Parameters in ECM of Die Tool Steel Using Nanofluid by Multiobjective Genetic Algorithm. Scientific World Journal, The, 2015, 2015, 1-6.	2.1	23
23	Influence of tool rotational speed on the properties of friction stir spot welded AA7075-T6/Al2O3 composite joint. Materials Today: Proceedings, 2020, 27, 62-67.	1.8	20
24	Correlation and measurement of density and viscosity of aqueous mixtures of glycerol and N-methyldiethanolamine, monoethanolamine, piperazine and ionic liquid. Journal of Molecular Liquids, 2016, 221, 1155-1161.	4.9	19
25	Evaluating weld properties of conventional and swept friction stir spot welded 6061-T6 aluminium alloy. Materials Express, 2019, 9, 851-860.	0.5	19
26	3-D finite-element analysis of fiber-reinforced soft bending actuator for finger flexion. , 2013, , .		18
27	Magnetic, thermal stability and dynamic mechanical properties of beta isotactic polypropylene/natural rubber blends reinforced by NiZn ferrite nanoparticles. Defence Technology, 2019, 15, 958-963.	4.2	18
28	Two chambers soft actuator realizing robotic gymnotiform swimmers fin. , 2014, , .		17
29	Compression after Impact Behaviour and Failure Analysis of Nanosilica-Toughened Thin Epoxy/GFRP Composite Laminates. Materials, 2019, 12, 3057.	2.9	16
30	Assessments of Process Parameters on Cutting Force and Surface Roughness during Drilling of AA7075/TiB2 In Situ Composite. Materials, 2021, 14, 1726.	2.9	16
31	E-Glass/phenolic matrix/APP laminate as a potential candidate for battery casing of e-vehicle - experimental investigations. Materials Research Express, 2021, 8, 045310.	1.6	16
32	Incorporation of Human-Platelet-Derived Growth Factor-BB Encapsulated Poly(lactic-co-glycolic acid) Microspheres into 3D CORAGRAF Enhances Osteogenic Differentiation of Mesenchymal Stromal Cells. ACS Applied Materials & Interfaces, 2017, 9, 9291-9303.	8.0	15
33	Structural and modal Analysis of Scooter Frame for Design Improvement. Materials Today: Proceedings, 2019, 16, 1106-1116.	1.8	13
34	EXPERIMENTAL INVESTIGATION OF STRUCTURE, WEAR, AND EROSION RESISTANCE OF SS316 SUBSTRATE COATED WITH TiAl2O3 COMPOSITE BY LASER CLADDING. High Temperature Material Processes, 2018, 22, 63-71.	0.6	11
35	Influence of Feeding Techniques in Bottom Tapping Stir Casting Process for Fabrication of Alumina Nano-filler-reinforced Aluminium Composites. Transactions of the Indian Institute of Metals, 2020, 73, 1265-1272.	1.5	10
36	SUPERIOR MATERIAL PROPERTIES OF HYBRID FILLER-REINFORCED ALUMINUM MMC THROUGH DOUBLE-LAYER FEEDING TECHNIQUE ADOPTED IN BOTTOM TAPPING STIR CASTING. High Temperature Material Processes, 2018, 22, 249-258.	0.6	10

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37	Optimal Training of Feedforward Neural Networks Using Teaching-Learning-Based Optimization with Modified Learning Phases. Lecture Notes in Electrical Engineering, 2022, , 867-887.	0.4	10
38	Determination of Non-Linear Material Constants of RTV Silicone Applied to a Soft Actuator for Robotic Applications. Key Engineering Materials, 2013, 594-595, 1099-1104.	0.4	9
39	Classification of Rheumatoid Arthritis using Machine Learning Algorithms. , 2019, , .		9
40	Modeling of multiwall carbon nanotubes reinforced natural rubber for soft robotic applications – A comprehensive presentation. Materials Today: Proceedings, 2021, 46, 3251-3258.	1.8	9
41	Production Wastage Avoidance Using Modified Multi-Objective Teaching Learning Based Optimization Embedded With Refined Learning Scheme. IEEE Access, 2022, 10, 19186-19214.	4.2	9
42	Non-Linear Finite Element Analysis of Biologically Inspired Robotic Fin Actuated by Soft Actuators. Applied Mechanics and Materials, 0, 528, 272-277.	0.2	8
43	The hydrodynamic behaviour of biologically inspired bristled shark skin vortex generator in submarine. Materials Today: Proceedings, 2021, 46, 3945-3950.	1.8	8
44	Experimental and numerical analysis on suitability of S-Glass-Carbon fiber reinforced polymer composites for submarine hull. Defence Technology, 2023, 19, 1-11.	4.2	8
45	Optimum Control Parameters During Machining of LM13 Aluminum Alloy Under Dry Electrical Discharge Machining (EDM) With A Modified Tool Design. Medziagotyra, 2019, 25, 407-412.	0.2	7
46	Effects of bone-plate materials on the healing process of fractured tibia bone under time-varying conditions: a finite element analysis. Materials Research Express, 2021, 8, 095308.	1.6	7
47	Simulations of Two Patterns Fiber Weaves Reinforced in Rubber Actuator. Jurnal Teknologi (Sciences) Tj ETQq1 1 0.784314 rgBT /Overlo	0.4	7
48	Numerical Dynamic Analysis of a Single Link Soft Robot Finger. Applied Mechanics and Materials, 0, 459, 449-454.	0.2	6
49	Design and Development of a Robot Gripper for Food Industries using Coanda Effect. , 2018, , .		6
50	Study on the repeatability of manufacturing nano-silica (SiO ₂) reinforced composite laminates. IOP Conference Series: Materials Science and Engineering, 2018, 346, 012083.	0.6	6
51	Investigation of Densification Behaviour on Yttrium Oxide Reinforced Ti-6AL-4V Nano-Composite Through Powder Metallurgy. International Journal of Mechanical and Production Engineering Research and Development, 2018, 8, 433-442.	0.1	6
52	Grasp Stability Analysis of an Isotropic Direct Driven Three-Finger Soft Robot Hand. International Journal on Advanced Science, Engineering and Information Technology, 2017, 7, 1627.	0.4	6
53	Gorilla Troops Optimizer Combined with ANFIS for Wire Cut EDM of Aluminum Alloy. Advances in Materials Science and Engineering, 2022, 2022, 1-14.	1.8	6
54	Application of Coanda Effect in Robots – A Review. Advances in Intelligent and Soft Computing, 2012, , 411-418.	0.2	5

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55	Measurement of range of motions of L3-L4 healthy spine through offsetting reflective markers and in silico analysis of meshed model. <i>Medical and Biological Engineering and Computing</i> , 2019, 57, 2305-2318.	2.8	5
56	The functionalization of the electrospun PLLA fibrous scaffolds reduces the hydrogen peroxide induced cytokines secretion in vitro. <i>Materials Today Communications</i> , 2021, 26, 101812.	1.9	5
57	Multi Wall Carbon Nanotube Reinforced Silicone for Aerospace Applications. <i>International Journal of Mechanical and Production Engineering Research and Development</i> , 2018, 8, 775-784.	0.1	5
58	Mechanical and wear behaviour of PEEK, PTFE and PU: review and experimental study. <i>Journal of Polymer Engineering</i> , 2022, 42, 407-417.	1.4	5
59	Design Topology Optimization and Kinematics of a Multi-Modal Quadcopter and Quadraped. , 2019, , .		4
60	Crystallinity Change and Reduced Warpages on Thin Walled Parts-the Effect of Nano Fumed Silica on Polyacetal. <i>Silicon</i> , 2021, 13, 4611-4622.	3.3	4
61	Evaluation of a Suitable Material for Soft Actuator Through Experiments and FE Simulations. <i>International Journal of Manufacturing, Materials, and Mechanical Engineering</i> , 2020, 10, 64-76.	0.4	4
62	A Constrained Teaching-learning-based Optimization with Modified Learning Phases for Constrained Optimization. <i>Journal of Advanced Research in Dynamical and Control Systems</i> , 2020, 12, 1442-1456.	0.2	4
63	Polyoxymethylene/talc composite: Investigation of warpage, mechanical and thermal properties for thin walled injection molding applications. <i>Journal of Applied Polymer Science</i> , 2022, 139, 51762.	2.6	4
64	PTFE in Wet and Dry Drilling: Two-Tier Modeling and Optimization through ANFIS. <i>Mathematical Problems in Engineering</i> , 2022, 2022, 1-10.	1.1	4
65	Experimental Study of Non-Contact Robot Gripper for Food Industries. <i>Applied Mechanics and Materials</i> , 2012, 232, 392-397.	0.2	3
66	Integrating Servo-Pneumatic Actuator with Ball Beam System based on Intelligent Position Control. <i>Jurnal Teknologi (Sciences and Engineering)</i> , 2014, 69, .	0.4	3
67	Effect of Chitosan Nanoparticle-Loaded <i>Thymus serpyllum</i> on Hydrogen Peroxide-Induced Bone Marrow Stromal Cell Damage. <i>Stem Cells International</i> , 2019, 2019, 1-12.	2.5	3
68	Mechanical integrity of PEEK bone plate in internal fixation of femur: experimental and finite element analysis towards performance measurement. <i>International Journal of Enterprise Network Management</i> , 2021, 12, 17.	0.3	3
69	Observation on Multivariable Regression Methods for Various Near Infrared Spectra Data. , 2018, , .		2
70	Dynamic Analysis of Compliant LEG of a Stewart-Gough Type Parallel Mechanism. , 2019, , .		2
71	Mechanical integrity of PEEK bone plate in internal fixation of femur: experimental and finite element analysis towards performance measurement. <i>International Journal of Enterprise Network Management</i> , 2021, 12, 17.	0.3	2
72	Smart Manufacturing – A Lead Way to Sustainable Manufacturing. <i>Materials Forming, Machining and Tribology</i> , 2021, , 1-7.	1.1	2

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73	Kinematic Analysis of Three Fingered Robot Hand Using Graphical Method. International Journal of Engineering and Technology, 0, , 518-522.	0.2	2
74	A Hybridized Pre-Processing Method for Detecting Tuberculosis using Deep Learning. , 2021, , .		2
75	Analysis of Potential Project Work Accidents: A Case Study of a Construction Project in Malaysia. , 2021, , .		1
76	Evaluation of a Suitable Material for Soft Actuator Through Experiments and FE Simulations. , 2022, , 339-353.		0