

# Alagar Karthick

## List of Publications by Year in descending order

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104  
papers

3,119  
citations

126907

33  
h-index

197818

49  
g-index

106  
all docs

106  
docs citations

106  
times ranked

1185  
citing authors

#	ARTICLE	IF	CITATIONS
1	Removing microplastics from wastewater using leading-edge treatment technologies: a solution to microplastic pollution—a review. <i>Bioprocess and Biosystems Engineering</i> , 2023, 46, 309-321.	3.4	18
2	A comprehensive MCDM-based approach using TOPSIS and EDAS as an auxiliary tool for pyrolysis material selection and its application. <i>Biomass Conversion and Biorefinery</i> , 2022, 12, 5845-5860.	4.6	43
3	Microstructure and Mechanical Properties of Friction Stir Welded SiC/TiB <sub>2</sub> Reinforced Aluminum Hybrid Composites. <i>Silicon</i> , 2022, 14, 3571-3581.	3.3	13
4	Artificial neural network-based output power prediction of grid-connected semitransparent photovoltaic system. <i>Environmental Science and Pollution Research</i> , 2022, 29, 10173-10182.	5.3	46
5	Review on application of phase change material for BIPV system. <i>Materials Today: Proceedings</i> , 2022, 59, 1243-1248.	1.8	3
6	Review on phase change materials for solar energy storage applications. <i>Environmental Science and Pollution Research</i> , 2022, 29, 9491-9532.	5.3	52
7	Design of Boosted Multilevel DC-DC Converter for Solar Photovoltaic System. <i>International Journal of Photoenergy</i> , 2022, 2022, 1-23.	2.5	7
8	Investigation of Weight Fraction and Alkaline Treatment on Catechu Linnaeus/Hibiscus cannabinus/Sansevieria Ehrenbergii Plant Fibers-Reinforced Epoxy Hybrid Composites. <i>Advances in Materials Science and Engineering</i> , 2022, 2022, 1-9.	1.8	17
9	A Review on the Effect of Various Chemical Treatments on the Mechanical Properties of Renewable Fiber-Reinforced Composites. <i>Advances in Materials Science and Engineering</i> , 2022, 2022, 1-24.	1.8	21
10	Role of Nanoparticles in Biodegradation and Their Importance in Environmental and Biomedical Applications. <i>Journal of Nanomaterials</i> , 2022, 2022, 1-15.	2.7	15
11	Performance Evaluation of Cyclic Stability and Capacitance of Manganese Oxide Modified Graphene Oxide Nanocomposite for Potential Supercapacitor Applications. <i>Journal of Nanomaterials</i> , 2022, 2022, 1-8.	2.7	7
12	Fabrication of MnO <sub>2</sub> Nanocomposite on GO Functionalized with Advanced Electrode Material for Supercapacitors. <i>Journal of Nanomaterials</i> , 2022, 2022, 1-7.	2.7	6
13	Mechanical and Durability Studies on Ficus exasperata Leaf Ash Concrete. <i>Advances in Civil Engineering</i> , 2022, 2022, 1-10.	0.7	0
14	Integrating Nanomaterial and High-Performance Fuzzy-Based Machine Learning Approach for Green Energy Conversion. <i>Journal of Nanomaterials</i> , 2022, 2022, 1-11.	2.7	16
15	Investigation on Inorganic Salts K <sub>2</sub> TiF <sub>6</sub> and KBF <sub>4</sub> to Develop Nanoparticles Based TiB <sub>2</sub> Reinforcement Aluminium Composites. <i>Bioinorganic Chemistry and Applications</i> , 2022, 2022, 1-13.	4.1	7
16	COVID-19 Detection Based on Lung Ct Scan Using Deep Learning Techniques. <i>Computational and Mathematical Methods in Medicine</i> , 2022, 2022, 1-13.	1.3	86
17	Investigating the Role of Image Fusion in Brain Tumor Classification Models Based on Machine Learning Algorithm for Personalized Medicine. <i>Computational and Mathematical Methods in Medicine</i> , 2022, 2022, 1-13.	1.3	21
18	A Practical Approach for Predicting Power in a Small-Scale Off-Grid Photovoltaic System using Machine Learning Algorithms. <i>International Journal of Photoenergy</i> , 2022, 2022, 1-21.	2.5	20

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19	Investigation of Reinforced Concrete Column Containing Metakaolin and Fly Ash Cementitious Materials. <i>Advances in Civil Engineering</i> , 2022, 2022, 1-13.	0.7	2
20	Human Centered Decision-Making for COVID-19 Testing Center Location Selection: Tamil Naduâ€”A Case Study. <i>Computational and Mathematical Methods in Medicine</i> , 2022, 2022, 1-13.	1.3	3
21	Utilisation possibilities of waste medium-density fiberboard: A material recycling process. <i>Materials Today: Proceedings</i> , 2022, 59, 1362-1366.	1.8	7
22	Diagnosis of Retinal Diseases Based on Bayesian Optimization Deep Learning Network Using Optical Coherence Tomography Images. <i>Computational Intelligence and Neuroscience</i> , 2022, 2022, 1-15.	1.7	23
23	Dynamic Analysis and Fabrication of Single Screw Conveyor Machine. <i>Advances in Materials Science and Engineering</i> , 2022, 2022, 1-10.	1.8	6
24	Biofabrication of Silver Nanoparticles and Current Research of Its Environmental Applications. <i>Journal of Nanomaterials</i> , 2022, 2022, 1-11.	2.7	6
25	Diagnosing Breast Cancer Based on the Adaptive Neuro-Fuzzy Inference System. <i>Computational and Mathematical Methods in Medicine</i> , 2022, 2022, 1-11.	1.3	9
26	Bioactive Potential of Brown Algae. <i>Adsorption Science and Technology</i> , 2022, 2022, .	3.2	23
27	Synthesis and Workability Behavior of Cu-X wt.% TiC (xâ€”=â€”0, 4, 8, and 12) Powder Metallurgy Composites. <i>Bioinorganic Chemistry and Applications</i> , 2022, 2022, 1-10.	4.1	3
28	Performance and Emission Analysis of Watermelon Seed Oil Methyl Ester and n-Butanol Blends Fueled Diesel Engine. <i>Mathematical Problems in Engineering</i> , 2022, 2022, 1-12.	1.1	7
29	Mechanical Properties and Electrical Resistivity of the Friction Stir Spot-Welded Dissimilar Alâ€”Cu Joints. <i>International Journal of Polymer Science</i> , 2022, 2022, 1-7.	2.7	8
30	IoT-Based Intelligent System for Internal Crack Detection in Building Blocks. <i>Journal of Nanomaterials</i> , 2022, 2022, 1-8.	2.7	4
31	Effect of Various Factors on Plant Fibre-Reinforced Composites with Nanofillers and Its Industrial Applications: A Critical Review. <i>Journal of Nanomaterials</i> , 2022, 2022, 1-23.	2.7	8
32	Investigation on Mechanical and Durability Performance of Reinforced Concrete Containing Red Soil as Alternate for M-Sand. <i>Journal of Nanomaterials</i> , 2022, 2022, 1-15.	2.7	2
33	Sustainable potable water production from conventional solar still during the winter season at Algerian dry areas: energy and exergy analysis. <i>Journal of Thermal Analysis and Calorimetry</i> , 2021, 145, 1215-1225.	3.6	37
34	Performance and emission characteristics of diesel engine fueled with ternary blends of linseed and rubber seed oil biodiesel. <i>Fuel</i> , 2021, 285, 119255.	6.4	54
35	Optimization of transformer oil blended with natural ester oils using Taguchi-based grey relational analysis. <i>Fuel</i> , 2021, 288, 119629.	6.4	69
36	Experimental investigation on cooling the photovoltaic panel using hybrid nanofluids. <i>Applied Nanoscience (Switzerland)</i> , 2021, 11, 363-374.	3.1	62

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37	Performance assessment of free standing and building integrated grid connected photovoltaic system for southern part of India. Building Services Engineering Research and Technology, 2021, 42, 237-248.	1.8	19
38	Effect of titanium diboride ceramic particles on mechanical and wear behaviour of Cu-10 wt% W alloy composites processed by P/M route. Vacuum, 2021, 184, 109895.	3.5	39
39	Phosphate bags as energy storage materials for enhancement of solar still performance. Environmental Science and Pollution Research, 2021, 28, 21540-21552.	5.3	37
40	Wind power forecasting based on time series model using deep machine learning algorithms. Materials Today: Proceedings, 2021, 47, 115-126.	1.8	18
41	Enhancing the fresh water produced from inclined cover stepped absorber solar still using wick and energy storage materials. Environmental Science and Pollution Research, 2021, 28, 18146-18162.	5.3	50
42	Experimental analysis of solar concrete collector for residential buildings. International Journal of Green Energy, 2021, 18, 615-623.	3.8	42
43	Comprehensive review on various parameters that influence the performance of parabolic trough collector. Environmental Science and Pollution Research, 2021, 28, 22310-22333.	5.3	38
44	State of Charge Estimation of Lithium-Ion Battery for Electric Vehicles Using Machine Learning Algorithms. World Electric Vehicle Journal, 2021, 12, 38.	3.0	140
45	Review on progress in concrete solar water collectors. Environmental Science and Pollution Research, 2021, 28, 22296-22309.	5.3	15
46	Short-Term Power Prediction of Building Integrated Photovoltaic (BIPV) System Based on Machine Learning Algorithms. International Journal of Photoenergy, 2021, 2021, 1-11.	2.5	53
47	Application of r-GO-MMT Hybrid Nanofillers for Improving Strength and Flame Retardancy of Epoxy/Glass Fibre Composites. Advances in Polymer Technology, 2021, 2021, 1-9.	1.7	17
48	Novel Multi-Time Scale Deep Learning Algorithm for Solar Irradiance Forecasting. Energies, 2021, 14, 2404.	3.1	32
49	Performance analysis of domestic solar air heating system using V-shaped baffles – An experimental study. Proceedings of the Institution of Mechanical Engineers, Part E: Journal of Process Mechanical Engineering, 2021, 235, 1705-1717.	2.5	14
50	Performance enhancement of solar photovoltaic system for roof top garden. Environmental Science and Pollution Research, 2021, 28, 50017-50027.	5.3	18
51	Investigating performance of solar photovoltaic using a nano phase change material. Materials Today: Proceedings, 2021, 47, 5029-5033.	1.8	33
52	Diagnosis of Cervical Cancer based on Ensemble Deep Learning Network using Colposcopy Images. BioMed Research International, 2021, 2021, 1-15.	1.9	81
53	Effect of ZrB <sub>2</sub> on microstructural, mechanical and corrosion behaviour of aluminium (AA7178) alloy matrix composite prepared by the stir casting route. Ceramics International, 2021, 47, 12951-12962.	4.8	78
54	Study on an ETC solar water heater using flat and wavy diffuse reflectors. Materials Today: Proceedings, 2021, 47, 5228-5232.	1.8	49

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55	Energy loss analysis of a large scale BIPV system for university buildings in tropical weather conditions: A partial and cumulative performance ratio approach. Case Studies in Thermal Engineering, 2021, 25, 100916.	5.7	15
56	Weldability Investigation and Optimization of Process Variables for TIG-Welded Aluminium Alloy (AA) Tj ETQq0 0 0 rrgBT /Overlock 10 Tf	1.8	26
57	Synthesis and Characterization of Mechanical Properties and Wire Cut EDM Process Parameters Analysis in AZ61 Magnesium Alloy + B4C + SiC. Materials, 2021, 14, 3689.	2.9	45
58	Study on Compaction and Machinability of Silicon Nitride (Si3N4) Reinforced Copper Alloy Composite through P/M Route. International Journal of Polymer Science, 2021, 2021, 1-10.	2.7	8
59	An improved control algorithm for Series Hybrid Active Power Filter based on SOGI-PLL under dynamic load conditions. Solid State Communications, 2021, 333, 114357.	1.9	7
60	Energy and Economic Analysis of Curved, Straight, and Spiral Flow Flat-Plate Solar Water Collector. International Journal of Photoenergy, 2021, 2021, 1-11.	2.5	32
61	Investigation on electric erosion behavior of nickel-based super alloy (Waspaloy: Ni, Cr, Co, Mo, Ti, Al) using response surface methodology. Surface Topography: Metrology and Properties, 2021, 9, 035006.	1.6	18
62	Review on the progress of building-applied/integrated photovoltaic system. Environmental Science and Pollution Research, 2021, 28, 47689-47724.	5.3	49
63	Investigation of Dynamic, Mechanical, and Thermal Properties of Calotropis procera Particle-Reinforced PLA Biocomposites. Advances in Materials Science and Engineering, 2021, 2021, 1-7.	1.8	14
64	Taguchi approach and decision tree algorithm for prediction of wear rate in zinc oxide-filled AA7075 matrix composites. Surface Topography: Metrology and Properties, 2021, 9, 035005.	1.6	17
65	Novel Approach to Handling Microfiber-Rich Dye Effluent for Sustainable Water Conservation. Advances in Civil Engineering, 2021, 2021, 1-10.	0.7	5
66	Investigations on Microstructure, Mechanical, Thermal, and Tribological Behavior of Cu-MWCNT Composites Processed by Powder Metallurgy. Journal of Nanomaterials, 2021, 2021, 1-15.	2.7	8
67	Effect of Graphene Oxide-Boron Nitride-Based Dual Fillers on Mechanical Behavior of Epoxy/Glass Fiber Composites. Journal of Nanomaterials, 2021, 2021, 1-10.	2.7	6
68	Thermal and Mechanical Properties of Vinyl Ester Hybrid Composites with Carbon Black and Glass Reinforcement. Advances in Materials Science and Engineering, 2021, 2021, 1-7.	1.8	4
69	Finite Element Analysis of Temperature Distribution and Stress Behavior of Squeeze Pressure Composites. Advances in Materials Science and Engineering, 2021, 2021, 1-9.	1.8	7
70	Microstructural and Mechanical Behaviors of Friction Stir Welded Dissimilar AA6082-AA7075 Joints. Advances in Materials Science and Engineering, 2021, 2021, 1-13.	1.8	30
71	Investigation on Heat Transfer Enhancement in Microchannel Using Al2O3/Water Nanofluids. International Journal of Photoenergy, 2021, 2021, 1-9.	2.5	8
72	Comprehensive review on recycling of spent lithium-ion batteries. Materials Today: Proceedings, 2021, 47, 167-180.	1.8	24

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73	Standalone PV-Wind-DG-Battery Hybrid Energy System for Zero Energy Buildings in Smart City Coimbatore, India. EAI/Springer Innovations in Communication and Computing, 2021, , 55-63.	1.1	13
74	Integrated modeling and feasibility analysis of a rooftop photovoltaic systems for an academic building in Bangladesh. International Journal of Low-Carbon Technologies, 2021, 16, 1317-1327.	2.6	21
75	Investigation of Mechanical and Durability Properties of Concrete Mixed with Water Exposed to a Magnetic Field. Advances in Civil Engineering, 2021, 2021, 1-14.	0.7	6
76	Design of Efficient Off-Grid Solar Photovoltaic Water Pumping System Based on Improved Fractional Open Circuit Voltage MPPT Technique. International Journal of Photoenergy, 2021, 2021, 1-18.	2.5	18
77	Comparative Analysis of Drilling Behaviour of Synthetic and Natural Fiber-Based Composites. Advances in Materials Science and Engineering, 2021, 2021, 1-13.	1.8	25
78	Thermal and Flame Retardant Behavior of Neem and Banyan Fibers When Reinforced with a Bran Particulate Epoxy Hybrid Composite. Polymers, 2021, 13, 3859.	4.5	14
79	A Novel Context Aware Joint Segmentation and Classification Framework for Glaucoma Detection. Computational and Mathematical Methods in Medicine, 2021, 2021, 1-19.	1.3	13
80	Investigation of Drilling Process Parameters of Palmyra Based Composite. Advances in Materials Science and Engineering, 2021, 2021, 1-9.	1.8	18
81	An Expert System for COVID-19 Infection Tracking in Lungs Using Image Processing and Deep Learning Techniques. BioMed Research International, 2021, 2021, 1-17.	1.9	19
82	Effects of the Interfacial Bonding Behavior on the Mechanical Properties of E-Glass Fiber/Nanographite Reinforced Hybrid Composites. Advances in Polymer Technology, 2021, 2021, 1-9.	1.7	17
83	Mechanical Properties of Titanium Diboride Particles Reinforced Aluminum Alloy Matrix Composites: A Comprehensive Review. Advances in Materials Science and Engineering, 2021, 2021, 1-18.	1.8	10
84	Hourly and Day Ahead Power Prediction of Building Integrated Semitransparent Photovoltaic System. International Journal of Photoenergy, 2021, 2021, 1-8.	2.5	12
85	Comparative Study of Mechanical Properties and Thermal Stability on Banyan/Ramie Fiber-Reinforced Hybrid Polymer Composite. Advances in Materials Science and Engineering, 2021, 2021, 1-11.	1.8	9
86	3D Printing Manufacturing Techniques, Materials, and Applications: An Overview. Advances in Materials Science and Engineering, 2021, 2021, 1-10.	1.8	22
87	Experimental Study on the Sound Absorption Properties of Finger Millet Straw, Darbha, and Ripe Bulrush Fibers. Advances in Materials Science and Engineering, 2021, 2021, 1-12.	1.8	6
88	Performance evaluation of building-integrated photovoltaic systems for residential buildings in southern India. Building Services Engineering Research and Technology, 2020, 41, 492-506.	1.8	35
89	Building integrated photovoltaic modules and the integration of phase change materials for equatorial applications. Building Services Engineering Research and Technology, 2020, 41, 634-652.	1.8	33
90	Investigation of a binary eutectic mixture of phase change material for building integrated photovoltaic (BIPV) system. Solar Energy Materials and Solar Cells, 2020, 207, 110360.	6.2	121

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91	Characterization of Hybrid-nano/Paraffin Organic Phase Change Material for Thermal Energy Storage Applications in Solar Thermal Systems. <i>Energies</i> , 2020, 13, 5079.	3.1	126
92	Investigation of Inorganic Phase Change Material for a Semi-Transparent Photovoltaic (STPV) Module. <i>Energies</i> , 2020, 13, 3582.	3.1	100
93	Investigations on an evacuated tube solar water heater using hybrid-nano based organic phase change material. <i>International Journal of Green Energy</i> , 2020, 17, 872-883.	3.8	91
94	Agro Waste Sugarcane Bagasse as a Cementitious Material for Reactive Powder Concrete. <i>Clean Technologies</i> , 2020, 2, 476-491.	4.2	32
95	Performance enhancement of copper indium diselenide photovoltaic module using inorganic phase change material. <i>Asia-Pacific Journal of Chemical Engineering</i> , 2020, 15, e2480.	1.5	53
96	Status of BIPV and BAPV System for Less Energy-Hungry Building in India—A Review. <i>Applied Sciences (Switzerland)</i> , 2020, 10, 2337.	2.5	78
97	Performance analysis and energy metrics of grid-connected photovoltaic systems. <i>Energy for Sustainable Development</i> , 2019, 52, 104-115.	4.5	68
98	Performance study of building integrated photovoltaic modules. <i>Advances in Building Energy Research</i> , 2018, 12, 178-194.	2.3	46
99	Performance enhancement of a building-integrated photovoltaic module using phase change material. <i>Energy</i> , 2018, 142, 803-812.	8.8	97
100	Performance analysis of semitransparent photovoltaic module for skylights. <i>Energy</i> , 2018, 162, 798-812.	8.8	66
101	Energy analysis of building integrated photovoltaic modules. , 2017, , .		13
102	Experimental analysis of concrete absorber solar water heating systems. <i>Energy and Buildings</i> , 2014, 84, 501-505.	6.7	43
103	Performance enhancement of photovoltaic module by integrating eutectic inorganic phase change material. <i>Energy Sources, Part A: Recovery, Utilization and Environmental Effects</i> , 0, , 1-18.	2.3	47
104	Performance analysis of mixed vegetable oil as an alternative for transformer insulation oil. <i>Biomass Conversion and Biorefinery</i> , 0, , 1.	4.6	7