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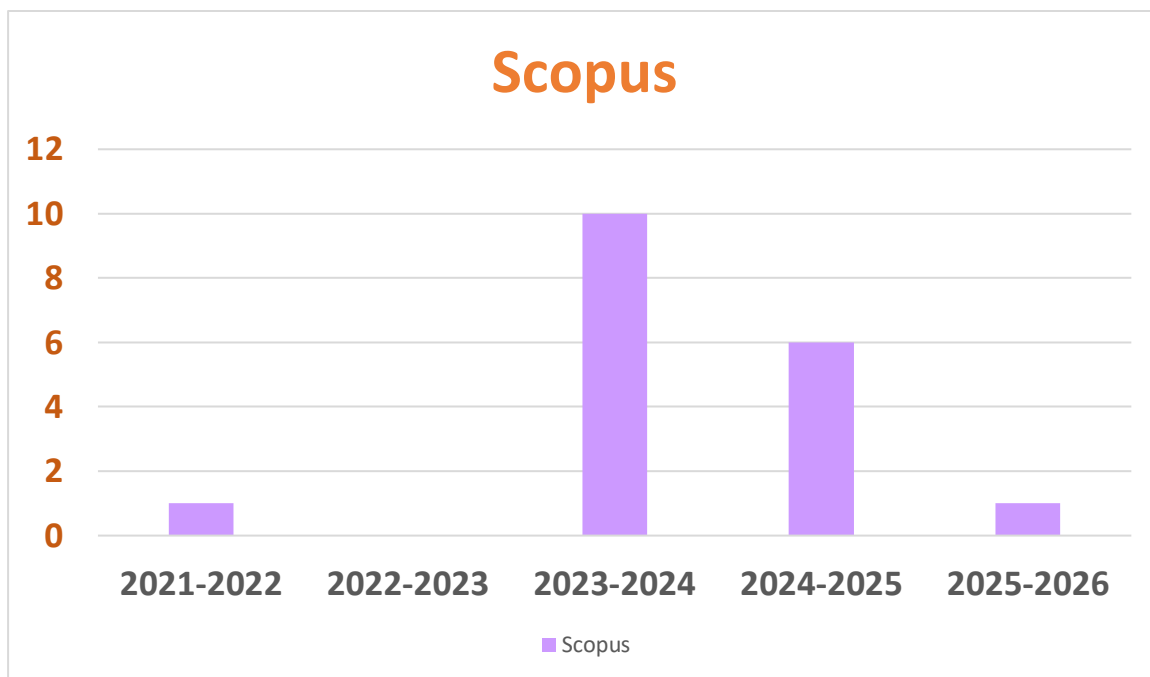
KCG Nagar, Karapakkam

Chennai – 600 097

DEPARTMENT OF MECHANICAL ENGINEERING



**FACULTY BOOK CHAPTER
PUBLICATIONS**



Academic Year	No. of Book Chapters	Scopus Indexed
2021-2022	1	1
2022-2023	0	0
2023-2024	10	10
2024-2025	6	6
2025-2026	1	1
Total	18	18

S. Jesudoss Thomas.

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Book Chapter Publication

CAY (2025-2026)

S.No	Authors	Book Title	Chapter Title	Chapter No.	Publisher	DOI	Indexing
1.	Bahuruteen Ali Ahamadu H, K Arun, S Arivazhagan, N Sendhil Kumar, S Kaliappan, M. D. Rajkamal	Machine Learning for Sustainable Energy Solutions	A Differentiation of Energy Storage Methods	Chapter 13	Wiley	10.1002/97813 94267439.ch13	Scopus

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Book Chapter Publication

CAY (2024-2025)

S.No	Authors	Book Title	Chapter Title	Chapter No.	Publisher	DOI	Indexing
1.	Kaliappan Seeniappan, A Krishnakumari, M Shanmugapriya, M Muthukannan	Design and Optimization of Wearable, Implantable, and Edible Antennas	Analyzing Renewable Power Integration in Edible Devices on Variable Rate Pumped Storage	Chapter 18	IGI Global	10.4018/ 979-8- 3693- 2659- 6.ch018	Scopus
2.	S Kavitha, M R Dileep, S Sampath Kumar, Mohammad Shahid, Hemachandu P, Kaliappan S	Metaheuristic and Machine Learning Optimization Strategies for Complex Systems	Experimental Investigation and Comparative Analysis of an Efficient Machine Learning Algorithm for Distribution System Reconfiguration	Chapter 1	IGI Global	10.4018/ 979-8- 3693- 7842- 7.ch001	Scopus
3.	Seeniappan Kaliappan	Metaheuristic and Machine Learning	Meta-Heuristic Optimization for	Chapter 13	IGI Global	10.4018/ 979-8-	Scopus

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		Optimization Strategies for Complex Systems	Enhanced Sensor-Based Health Monitoring in Cloud Computing Environments			3693-7842-7.ch013	
4.	I Manikandan, Nagalakshmi T, Vanya sree, G, Seeniappan Kaliappan, Arvinda Pandian C K, Govinda Rao S	Metaheuristic and Machine Learning Optimization Strategies for Complex Systems	Optimizing Optical Fiber Path in Wavelength Division Multiplexing Networks Using Particle Swarm Optimization	Chapter 16	IGI Global	10.4018/ 979-8-3693-7842-7.ch016	Scopus
5.	Kaliappan, S	Metaheuristic and Machine Learning Optimization Strategies for Complex Systems	Performance Evaluation of Simulation-Driven Metaheuristic Algorithms: Efficiency and Effectiveness Measures in the	Chapter 17	IGI Global	10.4018/ 979-8-3693-7842-7.ch017	Scopus



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			Search for Quality Solutions				
6.	M K Ranganantha Swamy, Prasad, D V S S S V, Hari Banda, A Mohamed Ibrahim, M Subramanian, Kaliappan S	Metaheuristics Algorithm and Optimization of Engineering and Complex Systems	A Novel Approach for Optimizing Wire Electric Discharge Machining of Mg-Cu-RE-Zr Alloy Using Machine Learning Algorithm	Chapter 3	IGI Global	10.4018/ 979-8- 3693- 3314- 3.ch003	Scopus

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Book Chapter Publication

CAYm1 (2023-2024)

S.No	Authors	Book Title	Chapter Title	Chapter No.	Publisher	DOI	Indexing
1.	Arulprakashajothi Mahalingam, Viswanath Balakrishnan, Sivasankaran Harish	Thermal Management for Batteries: From Basic Design to Advanced Simulation and Management Methods	Carbon-based phase-change nanocomposites for battery thermal management of electric vehicles	Chapter 12	Elsevier	10.1016/B978-0-443-19025-4.00014-2	Scopus
2.	M Vignesh Kumar; R Harish, S Surya Bharathi,	Advances in Manufacturing, Automation, Design and Energy	Modeling of Fine Korai Fiber Extraction Machine to Reduce User's Fatigue	-	Lecture Notes in Mechanical Engineering Springer	https://doi.org/10.1007/978-981-99-1288-9_58	Scopus
3.	V Dillibabu, S Gopinath, S Dharsan, M Sasidharan	Recent Advances in Mechanical Engineering	Effect of Operating Condition on Permanent Magnet Heating System	-	Lecture Notes in Mechanical Engineering Springer	https://doi.org/10.1007/978-981-99-2349-6_3	Scopus



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4.	Kaliappan S, Ragunthar T, Mohammed Ali, Murugeshwari, B	AI Approaches to Smart and Sustainable Power Systems	Implementation of Virtual High Speed Data Transfer in Satellite Communication Systems Using PLC and Cloud Computing	Chapter 14	IGI Global	10.4018/97 9-8-3693- 1586- 6.ch014	Scopus
5.							
6.	Ragunthar T, Kaliappan S, Mohammed Ali	AI Approaches to Smart and Sustainable Power Systems	Detection of Feedback Control Through Optimization in the Cyber Physical System Through Big Data Analysis and Fuzzy Logic System	Chapter 16	IGI Global	10.4018/97 9-8-3693- 1586- 6.ch016	Scopus
7.	Angalaeswari S, Kaliappan Seeniappan	AI Approaches to Smart and Sustainable Power Systems	Optimizing Power Usage in Wearable and Edible Devices for Railroad Operations Study on Renewable	Chapter 19	IGI Global	10.4018/97 9-8-3693- 1586- 6.ch019	Scopus

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			Power Integration and Storage				
8.	Kaliappan S, Muthukannan M, Krishnakumari A, Socrates S	AI Approaches to Smart and Sustainable Power Systems	Impact of Electronic Power Aging on Implantable Antennas: Insights into Leakage and Current Characteristics of HV Armature Winding	Chapter 20	IGI Global	10.4018/979-8-3693-1586-6.ch020	Scopus
9.	Selvakanmani S, Kaliappan S, Muthukannan M, Mohammed	Intelligent Solutions for Sustainable Power Grids	Recognition of Cyber Physical Systems Through Network Security for Wireless Sensor Networks: Using Artificial Intelligence in Cyber Physical Systems	Chapter 9	IGI Global	10.4018/979-8-3693-3735-6.ch009	Scopus
10.	Angalaeswari S, Kaliappan Seeniappan	Intelligent Solutions for	Estimating Parameters for Implantable	Chapter 17	IGI Global	10.4018/979-8-3693-	Scopus



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		Sustainable Power Grids	Hydroelectric Asynchronous Generators Field Simulations and Modified Standard Measurements Approach			3735- 6.ch017	
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Book Chapter Publication

CAYm3 (2021-2022)

S.No	Authors	Book Title	Chapter Title	Chapter No.	Publisher	DOI	Indexing
1.	R T Sarathbabu, M Kannan , R Balaji, Ashish Selokar	Advances in Mechanical and Materials Technology	Performance, Combustion, and Emission Characteristics of Diesel Engine Using Low- Temperature Combustion	-	Lecture Notes in Mechanical EngineeringS pringer	https://doi.org/10.1007/978-981-16-2794-1_110	Scopus

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