

<u>Department of Mechanical Engineering</u>					
Name	Dr. NAGARAJ G				
Date of Birth	22.2.1966				
Unique ID	1-422451383				
Educational Qualifications	B.E., M.E., Ph.D.				
Designation	ASSOCIATE PROFESSOR				
Email ID	gnagaraj@sethu.ac.in				
Alternate Email ID	nagarajsasi@gmail.com				
Experience	Industry	Teaching	Others	Total	
	9	17	-	26	
Date of Joining the Institution	30.06.2008				
Area of Specialization	Manufacturing Engineering				
Courses taught	Mechatronics and IoT, Engineering Graphics, E Vehicle Technology, Manufacturing Technology, Process Planning and Cost Estimation.				
Research Focus	Cellular Manufacturing and Desalination System				
Subject Competency	Mechatronics and IoT, Engineering Graphics, E Vehicle Technology, Manufacturing Technology, Process Planning and Cost Estimation.				
No. of papers published	National Journals		International Journals		Conferences
	6		18		10
PG Specialization	Manufacturing Engineering				
Ph.D. Specialization	Cellular Manufacturing System				
Patents (Filed & Granted)	Filed 4 + Published 3+ Granted 4				
Technology Transfer	1. Transferred technology on “Manufacturing through Industry 4.0” on 27.1.2023 to the students of Ultra College of Engineering & Technology. 2. Transferred technology on “Manufacturing Technology” on 27.05.2024 to the students of K.Ramakrishnan College of Technology. 3. Transferred technology on Electric Vehicle Technology on 22-02-2025 to the students of Mahakavi Bharathiyar College of Engineering & Technology.				
No. of Books published with details (Name of the book, Publisher with ISBN, year of publication, etc.)	Totally 11 Books				

Academic Credentials

Level	Degree	Specialization	University	Year of Completion
UG	Mechanical Engineering	Mechanical Engineering	Anna University, Chennai	2005
PG	Manufacturing Engineering	Manufacturing Engineering	Anna University, Chennai	2008
Ph.D.	Mechanical Engineering	Mechanical Engineering	Anna University, Chennai	2021

Details of Journal Publication:

1. Details of Journal Publication: G. Nagaraj, A. Manimaran, K.Vinayagar and S.Paramasamy, "Enhancing performance of cell formation problem using hybrid efficient swarm optimization", Soft Computing, ISSN 1432-7643, Vol. 24, (2020), pp. 16679–16690.
2. G. Nagaraj, A. Manimaran, K.Vinayagar and S.Paramasamy, "A novel hybrid DCMA-SSA paradigm for the multi-objective Cell Formation Problem", Interiencia Journal, ISSN 0378-1844, Vol. 45, No.7, (2020), pp. 104 – 122.
3. J. Karthikeyan, P. Selvaraj and G.Nagaraj, "Day and night yield performance analysis of solar still for saline water using energetic materials with thermocol insulation", Materials Today: Proceedings, ISSN 2214-7853, Vol. 33, No.7, (2020), pp. 4848 – 4851.
4. G. Nagaraj, A. Manimaran, A.S. Rakesh, S.Sheik Syed Abuthahir and S.Paramasamy, "Comparison of Matrix Clustering Methods to Design Cell Formation", International Journal of Applied Engineering Research, ISSN 0973-4562, Vol. 10, No.28, (2015), pp. 21900 – 21904.
5. G. Nagaraj, A. Manimaran, S.Sheik Syed Abuthahir, A.S. Rakesh and S.Paramasamy, "Productivity Enhancement by Balancing Takt Time in a Cellular Manufacturing Industry", International Journal of Applied Engineering Research, ISSN 0973-4562, Vol. 10, No.28, (2015), pp. 22040 – 22044.
6. A. Manimaran, G.Nagaraj, P. Venkumar and R.Ganesamoorthy, "Manufacturing cell formation considering various production factors using modified art1 networks," Academic Journal of Manufacturing Engineering, Vol. 12, No. 3, (2014), pp. 55 – 61. 10.
7. A. Manimaran, G. Nagaraj, P. Venkumar and S.Paramasamy, "Manufacturing cell formation using back propagation networks", Elixir Mech. Engg. Vol. 62, (2013), pp. 17803-17808.

8. K.Vinayagar, A. Senthil Kumar, S.Paramasamy, G. Pitchayya Pillai, G. Nagaraj, P.Sivakumar "Multi response optimization of gas metal arc welding process parameters", International Journal of Future Generation Communication and Networking, Vol. 13, No. 2, (2020), pp. 397 – 406.
9. K. Vinayagar, C. Muthusamy, G. Nagaraj and R. Sridhar, "Review on Crashworthiness Studies of Foam Filled Thin Walled Structures", International Advanced Research Journal in Science, Engineering and Technology, Vol. 7, No. 6, (2020), 60-69.
10. S.Paramasamy, A. Manimaran, K.Vinayagar and G.Nagaraj, "Cell formation in sheet metal processing industry using genetic algorithm", Caribbean Journal of Science, Vol. 53, No. 2, (2019), pp. 2526-2532
11. P.Selvaraj, A. Manimaran, and G.Nagaraj, "Performance analysis of solar still using sensible heat materials for saline water", Desalination and Water Treatment, ISSN 1944-3994, Vol. 125, (2018), pp. 111–115.
12. G. Nagaraj, Dr. Niraj Upadhayaya, Atheer Matroud, N Sabitha, Reshma V.K and Regonda Nagaraju, "A Detailed Investigation on Potential Impact of Quantum Computing on Improving Artificial Intelligence", International Conference on Innovative Data Communication Technologies and Application (ICIDCA-2023) IEEE Xplore Part Number: CFP23CR5-ART; ISBN: 979-8-3503-9720-8.
13. Dr.G. Nagaraj, Bilal Ahmed Mir, Leelavathy S R, Anirbit Sengupta, Dr. Sayed Sayeed Ahmad, "Artificial Neural Network to Predict Swinging of Lower Limb in Jumping Jack Exercise", Proceedings of the International Conference on Intelligent Data Communication Technologies and Internet of Things (IDCIoT 2023) IEEE Xplore Part Number: CFP23CV1-ART; ISBN: 978-1-6654-7451
14. G. Nagaraj, Mohammed Ali, R. Venkatesh and Ra. Aravind, "Synthesis of Green Cocos Nucifera L Fiber Loading Waste LDPE Composites Enriched with SiC: Performance Evaluation", Silicon 16, 1481–1490 (2024). <https://doi.org/10.1007/s12633-023-02771-2>
15. G. Nagaraj, J. Anthony Gruze Thangaraj, Kriti Phukan, Rajesh Deb Barman and Ramesh Naik Vankadoth "A study on impact of digital branding and packaging on consumer purchase decisions", Journal of Research Administration, Vol. 5 No. 2 (2023), 3184-3189.
16. G. Nagaraj, K.Arun Balasubramanian, T.Rajkumar and Paramasamy Shanmugam, "An Impact of E-commerce Business on Mechanical Manufacturing Industry", Journal of Propulsion Technology, Vol. 44, No. 5, (2023) pp. 3479 – 3483.
17. G. Nagaraj et al. 2024, The Role of Vocational Education and Its Impact on Human Development in India: Integrating Information Technology for Enhanced Skills and Opportunities, Educational Administration: Theory and Practice, 30 (2), 1251-1257, Doi: 10.53555/kuey.v30i2.6421.

18. G. Nagaraj and Yadaganti, R., 2024. A Study on Role of Neuromarketing in Digital Era Business Development. Migration Letters, 21 (S4), pp.1600-1605.
19. G. Nagaraj, Divya Nimma , Prasad H K, Nageswara Rao Eluri, Janardhana C, Sudheer S Marar, 2024, Optimizing Customer Support for Small Businesses Using Machine Learning Algorithms, Nanotechnology Perceptions, 20 No. S14, 1410-1417, ISSN 1660-6795.
20. Dr.G. Nagaraj et al., 2023, Application of advanced thermodynamic methods for optimizing thermal systems, Application of advanced thermodynamic methods for optimizing thermal systems, Eur. Chem. Bull.,12 (Special Issue 5), 537-549
21. Gopalakrishnan Nagaraj, Dakshinamurthy Sungeetha, Dakshinamurthy Sungeetha, Mohit Tiwari, Vandana Ahuja, Ajit Kumar Varma and Pankaj Agarwal, Advancements in Plant Pests Detection: Leveraging Convolutional Neural Networks for Smart Agriculture, Engineering Proceedings, MDPI, Switzerland, 201, 59, (1), 1-11.
22. S Paramasamy, A Manimaran, K Vinayagar, G Nagaraj, I Vijay Arasu, A Hybrid Swarm Based Optimization Approach for Solving Cell Formation Problem.
23. G Nagaraj, 2024, Development and Deployment of AI in Marketing Financial Services– Understanding the Managers and Study Insights, Recent Advances in Management and Engineering, CRC Press, 183-188.
24. G Nagaraj, 2024, Entrepreneurship and Innovation in the Age of Artificial Intelligence: A Machine Learning Approach, Recent Advances in Management and Engineering, CRC Press, 193-197.

Details of Conference attended:

1. IEEE International Conference, Manipal Institute of Technology, Manipal Academy of Higher Education, Manipal on 20-21, December 2024.
2. International Conference on Emerging Trends in Science, Engineering and Technology 28-07-2023
3. National Conference on Cutting Research Technology in Mechanical Engineering 17-04-2024
4. 9th National Level Conference Global Technologies in Manufacturing and Thermal Sciences
5. IEEE International Conference, Proceedings of the International Conference on Intelligent Data Communication Technologies and Internet of Things held on 16-12-2022

Details of Book Chapter and Books Published:

Name of the Dept	Name of the Author	Name of the Co-Author	Title of the Book	Year of Publication	Publisher	ISBN Number	Link to the proof
MECHANICAL	Dr.G.NAGARAJ	Dr.T.Gandhimathi, Dr.B.Nageswara Rao, Mr.D.Balaji	Fuzzy Logic and Neural Computing	2022	Alpha International Publication	ISBN: 978-93-95405-60-7	https://www.flipkart.com/fuzzy-logic-neural-computing/p/i

							tm9bcf46acc7609
MECHANICAL	Dr.G.NAGARAJ	Dr.Nupa Ram Chuhan, Dr.Subba Ramaiah and Dr.Revathi	Principles of artificial intelligence	2022	Alpha International Publication	ISBN: 978-93-5762-161-8	https://www.flipkart.com/principles-artificial-intelligence/p/itm9b57698d23c7e?pid=9789357621618&lid=LSTBOK97
MECHANICAL	Dr.G.NAGARAJ	Dr.Ramana Murty Naidu, Dr.Kanchu Satyam and Dr.Srinivasan	Production and operations management	2022	Alpha International Publication	ISBN: 978-93-95978-48-4	https://www.flipkart.com/production-operations-management/p/itm121ccf4218651
MECHANICAL	Dr.G.NAGARAJ	Dr.Yarrapragada Rao, Prof.Muruganandam and Muthuraman Subbiah.	A textbook of Engineering thermodynamics	2023	Alpha International Publication	ISBN: 978-93-5762-423-7	https://www.flipkart.com/textbook-engineering-thermodynamics/p/itm7f3c9f862568e?pid=9789357624237&lid=LS
MECHANICAL	Dr.G.NAGARAJ	Dr.Priyadarshi Tapas, Dr.Muthuraman Subbiah and Dr.Padmakar Dagadu.	Steam power plant engineering	2023	Alpha International Publication	ISBN: 978-93-5762-626-2	https://www.flipkart.com/steam-power-plant-engineering/p/itm3ccb3e237ce2f?pid=9789357626262&lid=LSTBOK9789357626262OVKCEP&marketplace=FLIPKART&cmpid=content_book_8965229628_gmc
MECHANICAL	Dr.G.NAGARAJ	Dr.T.S.Ghouse Basha, Dr.Siva Jyothi Penamakuru, Sreevidya.	Introduction to deep learning in medical image analysis	2022	Book Rivers Publication	ISBN: 978-93-5515-991-5	https://www.flipkart.com/introduction-deep-learning-medical-image-analysis/p/itm9bac12cf57f34d
MECHANICAL	Dr.G.NAGARAJ	Dr.Bhanu Pratap Pulla, Dr.N.Karthikeyan and Dr.Manjunatha Babu	Mems design, fabrication and its application	2022	Scientific International Publication House	ISBN: 978-93-5625-206-6	https://www.flipkart.com/mems-design-fabrication-its-application/p/i

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MECHANICAL	Dr.G.NAGARAJ	Dr.Gaurav Arora, Mrs.Ayesha Siddoqa and Dr.Puran Singh	Industry 4.0 support by Machine learning	2022	Book Rivers Publication	ISBN: 978-93-5515-912-0	https://www.amazon.in/Industry-4-0-Supported-Machine-Learning/dp/9355159129
MECHANICAL	Dr.G.NAGARAJ	Dr.Amutha Monica, Dr..Madhavi and Dr.Sanjay Kumar Singh	Professional Ethics in Engineering	2023	Prime International Publication	ISBN: 978-93-6010-527-3	https://www.flipkart.com/professional-ethics-engineering/p/itm019509add72c3?pid=9789360105273&lid=LSTBOK9789360105273ROHLJI&marketplace=FLIPKART&cmpid=content_book_8965229628_gmc
MECHANICAL	Dr.G.NAGARAJ	Dr. D. Sendil Kumar, Dr. M. Chinnapandian, Dr.Muthuraman Subbiah, Mr. K.Rajendra	Thermodynamics and heat transfer	2024	Cosmas Scientific Publications	ISBN: 978-93-6096-344-6	https://cosmas.org/store/engineering/thermodynamics-and-heat-transfer/

Details of Patents Filed and Granted:

1. Patent Grant received with the title of Automatic hybrid seed planting and liquid spray machine dated on 15-03-2024
2. Patent Grant received with the title of A portable dongle of cyber security and protection dated on 23-11-2023
3. Patent Grant received with the title of Thermo-chemical device to convert waste into energy dated on 31-12-2023
4. Patent Grant received with the title of Device for disaster evacuation and security map display dated on 4-8-2023
5. Patent Publication received with the title of ERP system implementation dated on 20-1-2023
6. Patent Publication received with the title of Educational activities among students: a pedagogical model for adaptive quality management dated on 12-5-2023
7. Dr. K. Arun Balasubramanian, Dr. G. Nagaraj, G. K. Thamil Selvan, T. P. Balaji, C. Tamilarasan, P. Karuppasamy, S. Saravanan, and B. Rajesh Kannan filed a design patent in December 2024, titled "Radiation Intensity Sensor Mounted Solar Panel System".

Expert Lecture Delivered:

4. Delivered Guest Lecture on “Manufacturing through Industry 4.0” on 27.1.2023 to the students of Ultra College of Engineering & Technology.
5. Delivered Guest Lecture on “Manufacturing Technology” on 27.05.2024 to the students of K.Ramakrishnan College of Technology.
6. Delivered Guest Lecture on Electric Vehicle Technology on 22-02-2025 to the students of Mahakavi Bharathiyar College of Engineering & Technology.