BIO-DATA

Dr. M.Shunmugathammal
Assistant Professor
Department of ECE, SRMIST Ramapuram Campus.
shaunmum@srmist.edu.in

Currently working as an Assistant Professor in the Department of Electronics and Communication Engineering at SRM Institute of Science and Technology, Ramapuram. . She was born in 1982, she received her Bachelor's degree in Electrical and Electronics from the Government College of Engineering, MS University Tirunelveli in 2003 and a master's degree in VLSI Design from Anna University Chennai in 2009. She received her Ph.D degree from Anna University Chennai. She has 15 years of teaching experience, published 7 SCIE, 5 Scopus Indexed Journal Articles and 5 Patents.

Area of Research:

Physical design of VLSI circuits, especially in floorplanning and placement also in metaheuristic algorithms.

International Journal Publications: SCI

1. **M.Shunmugathammal,** C. Christopher Columbus and S. Anand, A nature inspired optimization algorithm for VLSI fixed-outline floorplanning. in **Analog Integrated Circuits and Signal Processing, Vol.103, No.1, pp.173-186, springer Publishers,** Impact factor 0.925, 2020, **DOI :10.1007/s10470-020-01598-w. ISSN 0925-1030**

2. **M.Shunmugathammal**, C. Christopher Columbus and S. Anand, A Novel B*tree Crossover-Based Simulated Annealing Algorithm for Combinatorial Optimization in VLSI Fixed-Outline Floorplans in Circuits, Systems, and Signal Processing,Vol.39, No.2 pp.900-918, **Springer Publishers, Impact factor 1.98,** 2019**, DOI 10.1007/s00034-019-01054-9. ISSN 0278-081X.**

3. Baskaran, S., **Shunmugathammal, M**., Sivamani, C., Ravi, S., Murugapandiyan, P. and Ramkumar, N., 2022. UWBG AlN/β-Ga2O3 HEMT on Silicon Carbide Substrate for Low Loss Portable Power Converters and RF Applications. *Silicon*, pp.1-9.

4. Sivasankari, B., **M. Shunmugathammal**, Ahilan Appathurai, and M. Kavitha. "High-Throughput and Power-Efficient Convolutional Neural Network Using One-Pass Processing Elements." Journal of Circuits, Systems and Computers **Impact factor 1.33,** 2022. DOI 10.1142/S0218126622502267 ISSN (print): 0218-1266

5. Karnavel, K., Shanmugasundaram, G., Salunkhe, S.S., Sundari, V.K., **Shunmugathammal, M.** and Saraswat, B.K., 2022. Actuator Fluid Control Using Fuzzy Feedback for Soft Robotics Activities. INTELLIGENT AUTOMATION AND SOFT COMPUTING, 32(3), pp.1855-1865. DOI 10.32604/iasc.2022.023524 **ISSN:1079-8587.**

6. Shermila, P.J., Ahilan, A., **Shunmugathammal, M**. and Marimuthu, J., 2023. DEEPFIC: food item classification with calorie calculation using dragonfly deep learning network. Signal, Image and Video Processing, pp.1-9.

7. K. Lalitha, G. Ramya and **M. Shunmugathammal**, "AI based Safety Helmet for Mining workers using IoT Technology and ARM Cortex-M," in *IEEE Sensors Journal*, doi: 10.1109/JSEN.2023.3296523.

International Journal Publications: SCOPUS

1. **M.Shunmugathammal,** Sundari, V.K. and Laudis, L.L., 2021, July. Symbiotic Organisms Search (SOS) algorithm based on B* tree Crossover for fixed outline VLSI floorplans. In *2021* International Conference on System, Computation, Automation and Networking (ICSCAN) (pp. 1-5). **IEEE Xplore.**

2. Sudha, R., **M.Shunmugathammal,** Vijayalakshmi, S., Radhakrishnan, G., Hepsiba, D. and Rani, S.S., 2021, September. Design of Temperature Control in Solid State Fermentation Process for the Production of Enzyme. In *2021* Third International Conference on Inventive Research in Computing Applications (ICIRCA) (pp. 239-244)**. IEEE Xplore.**

3. Sundari, V.K. and **M.Shunmugathammal**, Swachh shithouse. **Materials Today: Proceedings, Elsevier Publishers 2021**.

4. **Shunmugathammal, M. &** Sundari, V. & Prakash, Manikenti. (2022). Real-Time Implementation of Caption Generation System Using LSTMS and WEB API. 10.1007/978-981-16-9488-2_67.

5. **Shunmugathammal, M.,** Ramya, G., Krishnan, N., Sornalakshmi, M. and Daniya, T., 2022, December. Li-Fi Technology based Automatic Vehicle Speed Controller. In 2022 11th International Conference on System Modeling & Advancement in Research Trends (SMART) (pp. 1084-1087). IEEE.

Patents Published:

1. Patent titled "Self-monitoring artificial intelligent system for aqua farm maintenance and animal feeding" Application Number- 202141025435, Journal Number- 26/2021, Journal Date: 25/06/2021, Indian Patent Office.

2. Patent titled Intelligent Emotional Quotient processing using brain signals and ZINC SoC" Application Number- 202141062067, January 2022, Indian Patent Office.

3. Patent titled "IOT based smart farming surveillance system using thing speak" Application Number-202241057706, Journal Date:21/10/22, Indian Patent office.

4. Patent titled "Animal Tracking Strap using RFID and IOT" Application number 382438-001" Granted on 28/03/23, Indian Patent office.

5. Patent titled "Optimal Scheduling of Electric Car Charging and Discharging at a Parking Station with a Solar System and an Energy Storage Unit" Application number 20234102627 A Published on 05/05/23, Indian Patent office.

Google Scholar:

https://scholar.google.com/scholar?hl=en&as_sdt=0%2C5&q=M.Shunmugathammal&btnG=

Scopus:

https://www.scopus.com/authid/detail.uri?authorId=57188963902

Orchid:

https://orcid.org/0000-0002-8634-540X

Dr.M.Shunmugathammal