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Dr. Amirthalakshmi Thirumalai Maadapoosi. is Currently working as an Associate Professor in the Department of Electronics and Communications Engineering, SRM Institute of Science and Technology, Ramapuram, Chennai, India. She completed her B.E. in Electronics and communication engineering from Pallavan college of engineering affiliated to Anna University. She received her M.Tech in VLSI Design from Sathyabama Institute of Science and Technology at Chennai. She obtained her Ph.D degree from Sathyabama Institute of Science and Technology at Chennai in the year of 2019. She published 29 papers across various reputed International Journals and also published 5 patents.

Area of Research:

VLSI Design, Low power VLSI Design, Image processing, Fuzzy logic and Microelectronics.

Selected Publications:

1. Sobhanan Warriar, Gayathry, **T. M. Amirthalakshmi**, K. Nimala, T. Thaj Mary Delsy, P. Stella Rose Malar, G. Ramkumar, and Raja Raju. "Automated Recognition of Cancer Tissues through Deep Learning Framework from the Photoacoustic Specimen." *Contrast Media & Molecular Imaging* 2022 (2022). (SCI IF=3.161)
2. Ramesh, S., J. Seetha, G. Ramkumar, Satyajeet Sahoo, **T. M. Amirthalakshmi**, A. Ranjith, Asiful H. Seikh, Khan Mohammed, M. A. Sohail, and Ram Subbiah. "Optimization of Solar Hybrid Power Generation Using Conductance-Fuzzy Dual-Mode Control Method." *International Journal of Photoenergy* 2022 (2022). (SCI IF=3.161)
3. Ramkumar, G., Satyajeet Sahoo, **T. M. Amirthalakshmi**, S. Ramesh, R. Thandaiah Prabu, Kasipandian Kasirajan, Antony V. Samrot, and A. Ranjith. "A short-term solar photovoltaic power optimized prediction interval model based on FOS-ELM algorithm." *International Journal of Photoenergy* 2021 (2021). (SCI IF=3.161)
4. **Amirthalakshmi, T. M.**, S. Ramesh, R. Thandaiah Prabu, G. Ramkumar, Satyajeet Sahoo, Prince Thomas, R. Jothi Ramalingam, Hamad Al-Lohedan, Dhaifallah M. Al-Dhayan, and Shanmugam Sureshkumar. "A novel approach in hybrid energy storage system for maximizing solar PV energy penetration in microgrid." *International Journal of Photoenergy* 2022 (2022). (SCI IF=3.161)
5. Prabu, R. Thandaiah, S. Parasuraman, Satyajeet Sahoo, **T. M. Amirthalakshmi**, S. Ramesh, S. Agnes Shifani, S. Arockia Jayadhas et al. "The Numerical Algorithms and Optimization Approach Used in Extracting the Parameters of the Single-Diode and Double-Diode Photovoltaic (PV) Models." *International Journal of Photoenergy* 2022 (2022). (SCI IF=3.161)
6. Sahoo, Satyajeet, **T. M. Amirthalakshmi**, S. Ramesh, G. Ramkumar, Joshua Arockia Dhanraj, A. Ranjith, Sami Al Obaid, Saleh Alfarraj, and S. S. Kumar. "Artificial Deep Neural Network in Hybrid PV System for Controlling the Power

- Management." *International Journal of Photoenergy* 2022 (2022). (SCI IF=3.161)
7. **Amirthalakshmi, T. M.**, and S. Selvakumar Raja. "Design and analysis of low power 8-bit ALU on reversible logic for nanoprocessors." *Journal of Ambient Intelligence and Humanized Computing* (2018): 1-19. (SCI IF=1.423)

Web Of Science :

1. Vedanarayanan, V., R. Narmadha, **T. M. Amirthalakshmi**, and Balamurugan Velan. "Classification of COVID-19 Cases using Deep Neural Network based on Chest Image Data through WSN." *International Journal of Intelligent Systems and Applications in Engineering* 10, no. 1 (2022): 28-34. (WOS)
2. **TM, Amirthalakshmi**, and V. Nagaraju. "Classification of Age and Gender Based On Artificial Neural Network Using Haar Cascade Algorithm." *Telematique* (2022): 1946-1962.(WOS)

SCOPUS:

1. Ramkumar, G., **T. M. Amirthalakshmi**, R. Thandaiah Prabu, and A. Sabarivani. "An effectual plant leaf disease detection using deep learning network with IoT strategies." *Annals of the Romanian Society for Cell Biology* (2021): 8876-8885.
2. Sakthisudhan, K., **T. M. Amirthalakshmi**, S. Sankar Ganesh, and S. Nandhakumar. "Gain enrichment of wideband antenna utilized on artificial magnetic conductor surface." *Materials Today: Proceedings* 37 (2021): 3557-3560.
3. Manimegalai, T., S. Ramesh, **T. M. Amirthalakshmi**, and R. Geetha. "Accessible residual energy based efficient routing in MANET." In *AIP Conference Proceedings*, vol. 2405, no. 1, p. 030021. AIP Publishing LLC, 2022.
4. **Amirthalakshmi, T. M.**, R. Geetha, T. Manimegalai, and S. Ramesh. "Design of low power reversible nano multiplier using single electron transistor." In *AIP Conference Proceedings*, vol. 2405, no. 1, p. 040023. AIP Publishing LLC, 2022.
5. **Amirthalakshmi, T. M.**, R. Geetha, T. Manimegalai, and S. Ramesh. "Design of low power reversible nano multiplier using single electron transistor." In *AIP Conference Proceedings*, vol. 2405, no. 1, p. 040023. AIP Publishing LLC, 2022.
6. Geetha, R., T. Manimegalai, S. Ramesh, and **T. M. Amirthalakshmi**. "Ontological representation of image processing methods for coronal hole material segmentation centered on physical restrains using multi-modal scheme." In *AIP Conference Proceedings*, vol. 2405, no. 1, p. 030018. AIP Publishing LLC, 2022.
7. **Amirthalakshmi, T. M.**, D. Subitha, A. Johnson Santhosh, Balachandra Pattanaik, Bharani Murugesan, and K. Sakthisudhan. "Breast carcinoma analysis by broadband antennas with composite test-beds." *Materials Today: Proceedings* 45 (2021): 3157-3160.
8. **Amirthalakshmi, T. M.**, and S. Selvakumarraja. "Design Of Low Power Reversible Compressors Using Single Electron Transistor." *ARPJ Journal of Engineering and Applied Sciences*, Vol. 11, No. 1, January 2016.
9. **Amirthalakshmi, T. M.**, and S. Selvakumarraja. "The Upcoming VLSI Based Integrated Circuits: A Recent Survey of Nanodevices." *Int. J. Advances in Science and Tech.* 2 (2014).
10. Balamurugan, V., V. Vedanarayanan, A. Sahaya Anselin Nisha, R. Narmadha, and **T. M. Amirthalakshmi**. "Multi-label text categorization using Error-Correcting Output Coding with weighted probability." *International Journal of Engineering* 35, no. 8 (2022): 1516-1523.

11. Nisha, A. Sahaya Anselin, R. Narmadha, **T. M. Amirthalakshmi**, V. Balamurugan, and V. Vedanarayanan. "LOBO Optimization-Tuned Deep-Convolutional Neural Network for Brain Tumor Classification Approach." Journal of Shanghai Jiaotong University (Science) (2023): 1-8.
12. **TM, Amirthalakshmi**, Sivakami Raja, Murali Subramanian, Christalin Nelson, Sujatha Rajkumar, Ramesh Makala, and Walelign Dinku. "Quality of Service Management for Fast Data Transmission in Industrial Mobile Communications Using PSO-Based Computer Vision Technique." Wireless Communications and Mobile Computing 2023 (2023).

Patents:

1. 4G and 5G technology based several-antennas for smart phone App using multimode, Patent Application number:202241042837,Journal number-23/2022, Date of Publication:29-07-2022
2. Design IOT-based remote intelligent healthcare system for personal emergency response using machine learning , Patent Application number:202241060276,Journal number-44/2022, Date of Publication:04-11-2022
3. VLSI based impulse noise cancellation to enhance image quality visually Patent application number: 202241001140 A Date of publication: 4/02/2021
4. Smart pipe inspection robot for block age detection and clearance, Patent application number: 202141029564 A Date of publication: 16/07/2021
5. Artificial intelligence in modern large power system applications, Patent application number: 201911042946 A Date of publication: 04/09/2020

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