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N Kapileswar is working as an Assistant Professor (Senior Grade) in the Department of ECE at SRMIST, Ramapuram. He received a B.Tech. Degree in Electronics and Communication Engineering from Jawaharlal Nehru Technological University, Hyderabad, India, and M.Tech. Degree in Nanotechnology from Vellore Institute of Technology, Vellore, India. He obtained his Ph.D. in Electronics and Communication Engineering from SRM University, Chennai, Tamil Nadu, and India. He served in the teaching profession for more than 15 years. He has published papers in National, International Journals and presented papers at various conferences.

Area of Research: Wireless Communications, Sensor Networks, and Internet of Things.

Selected Publications:

Web of Science/ SCI/ Scopus

1. Dasari Naga Vinod, N. Kapileswar, Judy Simon, Phani Kumar Polasi, B. Padmavathi, Partho Adhikari, "Validation and Performance Contrast of Deep Neural Network Based Mechanism for Real-Time Automatic Safety Helmet Detection" International Journal of Electrical and Electronics Engineering, Vol. 11 (5), pp: 102-118, May 2024.
2. R T Prabu, Judy Simon, Nellore Kapileswar, Dasari Naga Vinod, Phani Kumar Polasi, Hazem Hazem Ali Emam, "Four wave mixing, average amplified spontaneous emission, and channel spacing effects on the optical transceiver systems based on multi pumped Raman amplifiers," Journal of Optical Communications, Mar 2024.
3. Nellore Kapileswar, Polasi Phani Kumar, "Optimized deep learning driven signal detection and adaptive channel estimation in underwater acoustic IoT networks," Wiley, International Journal of Communication Systems, e5673, Dec. 2023.
4. Judy Simon, M Aarthi Elaveini, N Kapileswar, P Phani Kumar, "ARO-RTP: Performance analysis of an energy efficient opportunistic routing for underwater IoT networks," Springer, Peer-to-Peer Networking and Applications, pp.1-17, Oct. 2023.
5. Judy Simon, N Kapileswar, P Phani Kumar, M Aarthi Elaveini, "Improved geographic opportunistic routing protocol for void hole elimination in underwater IoTs: Parameter tuning by TSA optimization," Wiley, International Journal of Communication Systems, e5659, Nov. 2023.
6. N Kapileswar, and Phani Kumar Polasi. "An improved underwater wireless sensor network communication using Internet of Things and signal to noise ratio analysis." *Transactions on Emerging Telecommunications Technologies* 33, no. 9, e4560, June 2022.
7. Kapileswar. N, and P. Phani Kumar. "Energy efficient routing in IOT based UWSN using bald eagle search algorithm." *Transactions on Emerging Telecommunications Technologies* 33, no. 1, e4399, Nov. 2021.
8. Simon, J., Kapileswar, N., Polasi, P.K. and Elaveini, M.A., "Hybrid intrusion detection

- system for wireless IoT networks using deep learning algorithm”. Elsevier, *Computers and Electrical Engineering*, 102, p.108190, July 2022.
9. Reddy, B. Akhil, N. Uttam Reddy, D. Pravista Sai Teja, V. Serena Rajam, and N. Kapileswar. "A smartphone controlled fertilizing and plant watering garduino." *International Journal of Applied Mathematics Electronics and Computers* 8, no. 4 (2020): 173-178.
 10. Gottapu, Srinivasa Kiran, N. Kapileswar, P V Santhi, and Vijay KR Chenchela. "Maximizing cognitive radio networks throughput using limited historical behavior of primary users." *IEEE Access*, 6 (2018): 12252-12259.
 11. N. Kapileswar, and Gerhard P. Hancke. "Traffic management for emergency vehicle priority based on visual sensing." *Sensors Journal*, 16, no. 11 (2016): 1892.
 12. Chenchela, Vijay Kumar, V. P. Santhi , K. Nellore, and M. R. D. Palepu. "Improving the quality of Service (QOS) of Connection Admission control Mechanism (CAC) using two dimensional queuing model." *IOSR J. Electr. Electron. Eng* 11 (2016): 17-27.
 13. N. Kapileswar, and Gerhard P. Hancke. "A survey on urban traffic management system using wireless sensor networks." *Sensors Journal*, 16, no. 2 (2016): 157.
 14. P Mohan Radha, Vijay Kumar Chenchela, Palepu Vijayasanthi, and N. Kapileswar. "Design of High-Speed Fir Filter on FPGA by Using Multiplexer Array Optimization in DA-OBC Algorithm." *International Journal of Engineering Sciences & Research Technology*, 5(4), ISSN: 2277-9655, April 2016.
 15. Kapileswar. N, P V Santhi, P Mohan Radha Devi, and Vijay Kumar Chenchela. "Improving the Lifespan of Wireless Sensor Networks via Efficient Carrier Sensing Scheme-Csma/Sdf." *International Journal of Engineering Sciences & Research Technology*, 5(4), ISSN: 2277-9655, April 2016.
 16. Kapileswar, N., and P. V Santhi. "Fault Secure Encoder and Decoder with Clock Gating." *International Journal of VLSI Design & Communication Systems* 3, no. 2, pp.133-141, April 2012.
 17. Teja, K V Dcharan, And N. Kapileswar. "Power Analysis in MTCMOS Circuits using Triple-phase and Tri-mode Technique." *International Journal of Scientific Engineering and Technology Research*, Nov. 2014.
 18. Kapileswar, N., and S. B. Melingi. "Automatic traffic monitoring system using lane centre edges." *IOSR J. Eng.* 2 (2012): 1-8, Aug. 2012.

Conference/Book Chapter

1. Judy Simon, N Kapileswar, M Datchinamoorthi, S Muthukumar,” Gaze-Assisted Autism Spectrum Disorder Identification: A Fusion of Machine Learning and Deep Learning Approaches for Preemptive Identification” *IEEE 5th International Conference on Mobile Computing and Sustainable Informatics (ICMCSI)*, 18-19 January 2024, Lalitpur, Nepal.
2. P Phani Kumar, Judy Simon, K Durga Devi, M Aarthi Elaveini, N Kapileswar, “Enhanced Traffic Management for Emergency Vehicle Information Transmission using Wireless Sensor Networks,” *Elsevier, Procedia Computer Science*, pp. 798-807, January 2024.
3. N Kapileswar, P Phani Kumar, “Energy-Efficient Reliable Communication Routing Using Forward Relay Selection Algorithm for IoT-Based Underwater Networks,” *Springer, International Conference on IoT Based Control Networks and Intelligent Systems*, pp. 45-63, Nov. 2023.
4. Judy Simon, N Kapileswar, B Padmavathi, Aharam Ramanjani Murthy, Gudimella Sreeja, N Jayaprashanth, “Design and Development of Novel Artificial Intelligence Assisted Children’s Fingerprint Recognition System using Enhanced Biometrical Strategy,” *IEEE International Conference on Innovative Computing, Intelligent Communication and Smart Electrical Systems (ICSES)*, 14-15 December 2023, Chennai, India.

5. B Padmavathi, KR Sushkrutha, Judy Simon, M Aarthi Elaveini, N Kapileswar, "Implementation of a Health Monitoring System using Sensors and RedTacton" *IEEE Third International Conference on Ubiquitous Computing and Intelligent Information Systems (ICUIS)*, 01-02 September 2023 Gobichettipalayam, India.
6. Judy Simon, N Kapileswar, J Venu Gopal Reddy, V Narendra Reddy, J Naga Lakshmi, "Internet of Things Assisted Road Traffic and Safety Monitoring Scheme using Sensitive Alcohol Detectors with Speed Analyzing Protocol," *IEEE International Conference on Advances in Computing, Communication and Applied Informatics (ACCAI)*, pp.1-8, 25-26 May 2023.
7. Reddy, N. Uttam, P. Venkatesh Kumar, N. Kapileswar, Judy Simon, and P. Phani Kumar. "A Prediction Model for Minimization of Flood Effects using Machine Learning Algorithms." In *2022 Sixth International Conference on I-SMAC (IoT in Social, Mobile, Analytics and Cloud)(I-SMAC)*, pp. 593-597. IEEE, 2022.
8. Kapileswar, N., and P. Phani Kumar. "Self-Configured Energy Efficient Protocol for IoT Enabled Underwater WSNs." In *2022 4th International Conference on Inventive Research in Computing Applications (ICIRCA)*, pp. 398-403. IEEE, 2022.
9. Kapileswar, N., P. Prudhvi Raj, M. Krishna Kanth, D. Upendra, and P. Phani Kumar. "Deep learning algorithm for classification and prediction of COVID-19 Pneumonia using CT scan images." In *AIP Conference Proceedings*, vol. 2405, no. 1. AIP Publishing, 2022.
10. Kapileswar, N., B. Sankeetha, Mamta Mamta, V. Harini, S. K. Abinaya, and P. Phani Kumar. "Linear discriminant analysis based stage wise breast cancer identification." In *AIP Conference Proceedings*, vol. 2405, no. 1. AIP Publishing, 2022.
11. Kapileswar, Nellor, Polasi Phani Kumar, N. Uttam Reddy, B. Akhil Jaichandra Reddy, and B. Padmavathi. "Opportunistic Spectrum Distribution Protocol for Wireless Sensor Networks." In *International Conference on Micro-Electronics and Telecommunication Engineering*, pp. 1-15. Singapore: Springer Nature Singapore, 2021.
12. Padmavathi, B., and N. Kapileswar. "Energy-Efficient and Lossless Routing Scheme for Fire Detection in Wireless Sensor Networks." In *Proceedings of the First International Conference on Computing, Communication and Control System, I3CAC 2021, 7-8 June 2021, Bharath University, Chennai, India*. 2021.
13. Kapileswar, N., P. Phani Kumar, N. Uttam Reddy, D. Pravista Sai Teja, V. Serena Rajam, and B. Akhil Jaichandra Reddy. "Adaptive OFDM non-uniform modulation for underwater acoustic communication." In *2020 5th International Conference on Computing, Communication and Security (ICCCS)*, pp. 1-7. IEEE, 2020.
14. Pandey, Shivam, Rahul Kumar Barik, Aritra Karan, P. Phani Kumar, D. Haripriya, and N. Kapileswar. "Socio-medical drone with integrated defibrillator." In *Micro-Electronics and Telecommunication Engineering: Proceedings of 3rd ICMETE 2019*, pp. 659-668. Springer Singapore, 2020.
15. Oloyede, Muhtahir O., Gerhard P. Hancke, and N Kapileswar. "Evaluating the effect of occlusion in face recognition systems." In *2017 IEEE AFRICON*, pp. 1547-1551. IEEE, 2017.
16. Santhi, P. V, N Kapileswar, Vijay K R Chenchela, and CH Venkata Siva Prasad. "Sensor and vision based autonomous AGRIBOT for sowing seeds." In *2017 International Conference on Energy, Communication, Data Analytics and Soft Computing (ICECDS)*, pp. 242-245. IEEE, 2017.
17. Kapileswar, N, P. V. Santhi, Vijay K R Chenchela, and C H Venkata Siva Prasad. "A fast information dissemination system for emergency services over vehicular ad hoc networks." In *2017 International Conference on Energy, Communication, Data Analytics and Soft Computing (ICECDS)*, pp. 236-241. IEEE, 2017.

Patents Published:

1. Design patent granted “Wall Mounted face Mask Detecting Device Integrated with Touch Free Sanitized Dispenser” on 14/01/2023. (Design No.377423001).
2. Design patent granted “IoT based rail track inspection vehicle” on 02/03/2023. (Design No.380666001).
3. Filed a patent” Monitoring and Design of Underwater Sea Robot Using IOT and AI Technology” on 15/09/2022. (Filing No.202241052832 A)
4. Filed a patent” IOT AI-based Smart Underwater Wireless Communication Using MI Algorithms” on 21/04/2022. (Filing No.202241023527 A)
5. Filed a Patent “Power Sharing and Eco-Friendly Smart Connected Vehicle System Driven by Hybrid Renewable Energy and IoT for Highways” on 13/11/2021. (Filing No: 202141052137 A)

Professional Bodies:

Name of the Society	Membership No
IEEE	94832735

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