

## KONGU ENGINEERING COLLEGE CAMPUS R&D NEWS



**VOL 05** 

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## PH.D VIVA-VOCE COMPLETED

- 1. Mr.S.Mohan, Research Scholar, Department of Electronics and Communication Engineering defended his thesis entitled "A certain investigation on segmentation of psoriasis skin images using CNN based optimization algorithm" on 07.10.2024 under the guidance of Dr.N.Kasthuri / ECE.
- 2. Mr.A.Ananthakumar.Raja, Research Scholar, Department of Civil Engineering defended his thesis entitled "Performance evaluation of steel-concrete-steel sandwich light beams with cold-formed channel shear connectors" on 08.10.2024 under the guidance of Dr.S.Balaji / Civil.
- 3. Mr. A.Raymon, Research Scholar, Department of Electrical and Electronics Engineering defended his thesis entitled "Investigations on pongamia oil-based dielectric fluid as a sustainable solution for power and distribution transformers" on 09.10.2024 under the guidance of Dr.M.Srinivasan / EEE.
- 4. Mr.S.Thangavel, Research Scholar, Department of Mechatronics Engineering defended his thesis entitled "A study in TIG weld quality monitoring based on weld TIP degradation rate using machine learning algorithms" on 14.10.2024 under the guidance of Dr.C.Maheswari / MTS.
- 5. Mr.M.Suresh, Research Scholar, Department of Electrical and Electronics Engineering defended his thesis entitled "Investigation of critical dielectric properties of neem oil for distribution transformer applications" on 14.10.2024 under the guidance of Dr.M.Srinivasan / EEE.
- 6. Ms.B.Narmada, Research Scholar, Department of Information Technology defended his thesis entitled "Enhancing personal health record security using decentralized blockchain based techniques in big data" on 14.10.2024 under the guidance of Dr.S.Varathaganapathy / IT.
- Ms.B.Sharmila, Research Scholar, Department of Electronics and Instrumentation Engineering defended his thesis entitled "Performance enhancement of secure data transfer in IoT using blockchain technology" on 14.10.2024 under the guidance of Dr.T.Kalavathi Devi / EIE.

- 8. Mr.M.Raja, Research Scholar, Department of Electronics and Instrumentation Engineering defended his thesis entitled "Certain investigations on detection and classification of brain anomaly from MRI images using deep learning" on 15.10.2024 under the guidance of Dr.S.Vijayachitra / EIE.
- 9. Ms.S.Vijayashanthy, Research Scholar, Department of Civil Engineering defended his thesis entitled "Probabilistic monitoring and evaluation of intrinsic emissions form solid waste landfills in erode city using machine learning algorithms" on 15.10.2024 under the guidance of Dr.V.Sampathkumar (RC) / Civil.
- 10. Mr.K.Srinivasan, Research Scholar, Department of Management Studies defended his thesis entitled "Investor buying behaviour towards stock market with reference to salem district in Tamilnadu: A study" on 15.10.2024 under the guidance of Dr.P.Karthikeyan / MBA.
- 11. Ms. S.Vaishnavi, Research Scholar, Department of Chemical Engineering defended his thesis entitled "Comparative studies on phytoremediation of chromium (Cr(VI)) wastewater using elodea canadensis and canna indica in constructed wetland" on 22.10.2024 under the guidance of Dr.V.Sangeetha / Chemical.

## **R&D PROJECTS SACTIONED (2024-2025)**

- 1. Ms.S.Mohana Saranya/CSE, received research grant of Rs.1,50,000/- for the project entitled "Tomatix: Revolutionizing Crop Planning and Market Intelligence" under AICTE- Tomato Grand Challenge Scheme on 10.06.2024, F.No.M/954/2024-US C1/1/16.
- Dr.N.Prakash/MBA, Dr.V.Vaishnavi/MBA, Dr.P.Sivaranjani/ECE, Dr.P.Karthikeyan/MBA received research grant of Rs.7,50,000/- for the project entitled "Implementation of Blockchain Technology to Enhance Transparency, Traceability and Quality Assurance in the Supply Chain of South Indian Agriculture Industries" under ICSSR-R&D Scheme on 20.09.2024, F.No.162/VVB@20247/2024-2802/NR&RD-A/SCD.
- 3. Dr.M.Joseph Auxilius Jude/ECE, received research grant of Rs.3,00,000/- for the project entitled "Robust end-to-end congestion control algorithm for vehicular internet computing" under TNSCST-RFRS Scheme on 17.06.2024, F.No.TNSCST/RFRS/06/VM2022-23/16395.

## REFERRED JOURNAL PUBLICATIONS

- 1. Mukesh, T.S., Kulanthaivel, P., Kavya Ravichandran., and Madhvan Dhanasekar., (2024). Enhancing the performance of ECC through chemically treated Jute fibre reinforcement. *Asia-Pacific Journal of Science and Technology*, Vol.29(5), Article ID: APST-29-05-11.
- 2. Vishnuvardhan, K., Rajkumar, R., Navin Ganesh, V., and Sakthiprasanth, K., (2024). Neural-network-driven approach in optimization of municipal solid waste collection integrated with geo-spatial techniques. *Global NEST Journal*, Vol 26(9), p.06187.
- 3. Viswanathan Kinipalayam Eswaran., Senthilkumar Veerasamy., Pradeep Thirumoorthy., and Sampathkumar Velusamy., (2024). Effect of Harvesting Time on Biomass and Combustion Quality of Miscanthus lutarioriparius in Dongting Lake Area. *Solid Fuel Chemistry*, Vol.58(6), pp.508-521.
- Priyanka, E.B., Thangavel, S., Mohanasundaram, R., and Anand, R., (2024). Solar powered integrated multi sensors to monitor inland lake water quality using statistical data fusion technique with Kalman filter. *Scientific Reports*, Vol.14(1), p.25202.
- 5. Maheswari, C., Suresh, R., and Baskar, R., (2024). Mechanical and statistical pathway for the experimental investigation of the dairy industry effluent using non-thermal plasma. *Desalination and Water Treatment*, Vol.320, p.100749.
- 6. Suganeswaran, K., Gobinath, V.K., and Vaishak, K., (2024). Advancing Vehicle Safety: An Automated Emergency Air-Filling System for Tyre Maintenance. Proceedings of the International Conference on Advancements in Materials, Design and Manufacturing for Sustainable Development.
- Anbalagan, S., Manojkumar, K., Muthuramalingam, M., Hajra, S., Panda, S., Sahu, R., Kim, H.J., Sundaramoorthy, A., Nithyavathy, N., and Vivekananthan, V., (2024).
   Progress and recent advances in self-powered gas sensing based on triboelectric and piezoelectric nanogenerators. *Chemical Engineering Journal*, p.154740.
- Eman A. Mwafy., Gobinath Velu Kaliyannan., A.A.A. Darwish., Mariem M. Motawea., Raja Gunasekaran., Rajasekar Rathanasamy., Zaynb El-Tayeb., Wafaa B. Elsharkawy., Ayman M. Mostafa., and Sathish Kumar Palaniappan., (2024). Enhancing solar cell productivity with MgAl2O4–ZnAl2O4 blended anti-reflection coatings. Surfaces and Interfaces, Vol. 53, p.104997.
- 9. Raja Gunasekaran., Gobinath, V.K., Kandasamy Suganeswaran., Nagarajan Nithyavathy., and Shanmugam Arun Kumar., (2024). Applications of Friction Stir

- Welding, Friction Stir Welding and Processing: Fundamentals to Advancements. *John Wiley & Sons, Inc. P.* pp.245-258.
- 10. Gomathi, K., Sathiyavathi, S., Tony Thomas, A., and Arunkumar, V., (2024). An experimentation of hand–arm tremor control using low-g area-changed capacitive micro-accelerometer. *Transactions of the Institute of Measurement and Control*, Vol.46(14), pp.2742-2756.
- 11. Vignesh, R., Balaraju, J., Poongothai, P., Rajput, V., Rajkumar, N., and Pratheep, V.G., (2024). Real-time Human Action Recognition using Deep Convolutional Neural Networks. 15<sup>th</sup> International Conference on Computing Communication and Networking Technologies (ICCCNT), pp.1-6.
- 12. K. S., K. K., Isaac, J.S., Pratheep, V.G., Jasmin, M., Kistan, A., and Boopathi, S., (2024). Smart Food Quality Monitoring by Integrating IoT and Deep Learning for Enhanced Safety and Freshness. *In S. Mehta & F. Al-Turjman (Eds.), Edible Electronics for Smart Technology Solutions*, pp.79-110.
- 13. Priyanka, E.B., Thangavel, S., Hasso, E. and Jose, A.A., Sustainable Business Growth of Inland Aquaculture on the Promotion of Global Partnership using Canvas Model. *In Sustainable Development Goals*, pp.302-319.
- 14. Senthil Kumar, P., Nithiyarasan, R., Kamalesh, M.D., Sudalai Muthu, T., and Vinoth, P., (2024). Experimentation Study of Sound and Vibration Absorption in Two-Wheeler Engines using Tea Waste and Nano-Clay Material. *In Journal of Physics: Conference Series*, Vol.2837(1), p.012012.
- 15. Karthi Vinith, K.S., Sreenaveen, G., Sarveshnarayanan., and Muthukumar, S., (2024). Experimental Testing of Rubber Materials for Enhancement of Suspension Bush Performance. *In Journal of Physics: Conference Series*, Vol.2837(1), p.012014.
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- 21. Rajendra, P., Mohanasundaram, T., Shanthi, D., and Gunasekar, T., (2024). Smart and sustainable building materials: Empirical examination of consumer adoption intentions in Bangalore. *AIP Conference Proceedings*, Vol.3221(1), p.020006.
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- 29. Aathilakshmi, S., Sivapriya, G., and Manikandan, T., (2024). 6 LLM Fine-Tuning: Instruction and Parameter-Efficient Fine-Tuning (PEFT). *Generative AI and LLMs: Natural Language Processing and Generative Adversarial Networks*.
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- 33. Shanthi, R., Venkatesh, R., Sankari, C., Manimaran, V., and Basha, S.H., (2024). Enhancing Remote Sensing Image Classification using Arithmetic Optimization Algorithm with Deep Learning Approach. *Second International Conference on Advances in Information Technology (ICAIT)*, pp.1-6.
- 34. Nandhini, P.S., Karunamoorthi, R., Mariappan, P., and Revathi, S., (2024). Multilingual Offensive Language Detection in Social Media Content using BERT-Base-Multilingual-Cased Model. 15<sup>th</sup> International Conference on Computing Communication and Networking Technologies (ICCCNT), pp.1-6.
- 35. Mohana Saranya, S., Komarasamy, D., Mohanapriya, S., Iyapparaja, M., and Prabavathi, R., (2024). Industry 4.0: The Role of Industrial IoT, Big Data, AR/VR, and Blockchain in the Digital Transformation. In: Chowdhary, C.L., Tripathy, A.K., Wu,

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- 36. Sasipriyaa, N., Ravikumar, R., Sharmila, C., Gothai, E., Krishnakumar, B., and Nithya Sri, R.K., (2024). Enhancing COVID-19 and Pneumonia Detection with a Hybrid ACGAN-CNN Model. 15<sup>th</sup> International Conference on Computing Communication and Networking Technologies (ICCCNT), pp.1-7.
- 37. Ponselvakumar, A.P., Shankar, V.P.G., Iniyan, G., and Logesh, B., (2024). Improving the Cryptocurrency Price Prediction using Deep Learning. *Lecture Notes in Networks and Systems*, Vol.1048, pp.145-153.
- 38. Ponselvakumar, A.P., Arul Prakasham, M., Bharathi, R., and Harish Ragavendran, B., (2024). Prediction of Biomass Composition in Fluidized Matrix Biomass Gasifier. *Lecture Notes in Networks and Systems*, Vol.1050, pp.324-333.
- 39. Suresh, P., Keerthika, P., Manjula Devi, R., Kamalam, G.K., Logeswaran, K., Sadasivuni, K.K., and Devendran, K., (2024). Optimized task scheduling approach with fault tolerant load balancing using multi-objective cat swarm optimization for multi-cloud environment. *Applied Soft Computing*, Vol.165, p.112129.
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- 42. Aarthi, R., Vanitha, P., Rajalakshmi, P., Thomas, S.J., and Maadhesh, V., (2024). Brain Stroke Prediction using Machine Learning. *Lecture Notes in Networks and Systems*, Vol.1046, pp.296-304.
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- 44. Shanthakumari, R., Roopa Devi, E.M., Vinothkumar, S., Asifaa Sulthana, N., Fahima Begum, B., and Kaushik, G., (2024). Biomedical Named Entity Recognition with BiLSTM-EDA: A Deep Learning Approach. *Lecture Notes in Networks and Systems*, Vol.1047, pp.389-399.

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- 47. Roopadevi, E.M., Shanthakumari, R., Rajadevi, R., Anusuyaa., Harini., and Lokesh., (2024). Rice Leaf Disease Diagnosis using Dense Efficient Net Model. *Lecture Notes in Networks and Systems*, Vol.1046, pp.200-210.
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- 51. Sakthivel, B., Vanathi, P., Ramya Sri, M., Subashini, S., Sonthi, V.K., and Sathish, C., (2024). Generative AI Models and Capabilities in Cancer Medical Imaging and Applications. 3<sup>rd</sup> International Conference on Sentiment Analysis and Deep Learning, pp.349-355.
- 52. Komala, C.R., Pradeep, N., Devi, S.R., Pithadiya, B.H., Jeevanantham. A., and Hema, N., (2024). Metaheuristic-Optimized Clustering for Improving QoS in IoT-Enabled Wireless Sensor Networks. *International Conference on Expert Clouds and Applications*, pp.124-129.
- 53. Anandamurugan, S., Anand, D.V., Raja, R.A., Aparna, V., and Shankar, K.P.G., (2024). Unraveling the Complexity: Exploring Machine Learning Algorithms for DDoS Attack Analysis. Intelligent Systems Design and Applications. *Lecture Notes in Networks and Systems*, Vol.1048.

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- 71. Kalaivani, K.S., Selvi, C.K., Dhanush, M., and Gowtham, M., (2024). Land Cover Segmentation in Satellite Images using Transfer Learning. Second International Conference on Intelligent Cyber Physical Systems and Internet of Things (ICoICI), pp.714-724, IEEE.
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