



### PH.D VIVA-VOCE COMPLETED

1. Ms.T.Maheswari, Research Scholar, Department of Physics defended her thesis entitled "Investigations of solid blend biopolymer electrolyte of dextran-PVA for proton battery" on 02.09.2022 under the guidance of Dr.K.Tamilarasan / Physics.
2. Mr.S.Santhosh, Research Scholar, Department of Mechanical Engineering defended his thesis entitled "Experimental investigation on the power conversion efficiency performance of molybdenum diselenide and zinc oxide-tantalum pentoxide deposited multicrystalline silicon solar cells" on 02.09.2022 under the guidance of Dr.R.Rajasekar / Mechanical.
3. Mr.S.Prashanth, Research Scholar, Department of Mechanical Engineering defended his thesis entitled "Performance evaluation of power conservation efficiency attainment in polycrystalline silicon solar cells through sputter and spin coated molybdenum disulphide antireflecting layers" on 16.09.2022 under the guidance of Dr.R.Rajasekar / Mechanical.
4. Mr.N.Bagath Singh, Research Scholar, Department of Mechanical Engineering defended his thesis entitled "Investigation and optimization of production parameters for the bus body building industry using metaheuristic search" on 30.09.2022 under the guidance of Dr.A.Sivakumar / Mechanical.

### R&D PROJECTS SACTIONED (2022-2023)

1. Mr.M.S.Kamalesh / EEE received research grant of Rs.17,39,024/- for the project entitled "Design of a paddle based auxiliary charging circuit for E-bikes in left-out situation" under SERB-SIRE scheme on 23.08.2022, Ref. SIR/2022/000778.

### REFERRED JOURNAL PUBLICATIONS

1. Jagadeesan, P., Sudharsan, N., Subash, S.M., Pradeep Thirumoorthy., Sugumaran, B., Jabar Abdul Bari., Vetturayasudharsanan, R., Ambika, D., Sharmiladevi, K., and Kathiresan Karuppanan., (2022). Study on Performance of

- Infilled Wall in an RC-Framed Structure Using a Reinforcing Band. *Advances in Materials Science and Engineering*, Vol.2022, Article ID: 8643959.
2. Sampathkumar, V., Southamirajan, S., Elango Subramani., Senthilkumar Veerasamy., Ambika, D., Dineshkumar Gopalakrishnan., Arunkumar, G.E., Raja, K., Arulmozhi, S., and Dhivya Balamoorthy., 2022. Treatment of Tanning Effluent using Seaweeds and Reduction of Environmental Contamination. *Journal of Chemistry*, Vol.2022, Article ID: 7836671.
3. Thangavelu Arumugam., Sridhar Ramachandran., SapnaKinattinkara., Sampathkumar Velusamy., Snehmani., Manoj Shanmugamoorthy., and Suthaviji Shanmugavadeivel., (2022). Bayesian networks and intelligence technology applied to climate change: An application of fuzzy logic based simulation in avalanche simulation risk assessment using GIS in a Western Himalayan region. *Urban Climate*, Vol.2022, Article ID: 101272.
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5. Karthikeyan, R., Thangavel, P., Raghunath, R.T., Priyan, K.M., and Balaji, M.P., (2022). Performance analysis of greenhouse solar dryer using evacuated tubes. *Materials Today: Proceedings*, Vol.66, pp.1509-1513.
6. Saji Raveendran, P., Malai, S.P., Raj, R.N., Naveen, V., and Binoj, J.S., (2022). Experimental analysis of semi-automatic drainage cleaner. *Materials Today: Proceedings*, Vol.66, pp.1492-1496.
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8. Mohankumar. A., Madheswaran, B., Alrubaie, A.J., Panchal, H., Muthusamy, S., Jaber, M.M., and Buddhi, D., (2022). Effect of Titanium Based Alloys on Thermo-Mechanical Behavior in 3D Forging Simulation. *Metals*, Vol.12(10), p.1611.
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10. Naveenkumar, R., Shankar, S., Nithyaprakash, R., Hariprasath, D., Moulidaman, G., and Prakash, C., (2022). Evaluation of the Efficacy in Ergonomically Designed Handsaw to Minimize the Muscular Load on Arm and Shoulder Muscles among Carpenters. *Journal of the Institution of Engineers (India): Series C*, Vol.103(5), pp.1125-1132.

11. Maheswari, C., Suresh, R., and Rajoo, B., (2022). Experimental analysis and parameter optimization on the reduction of NO<sub>x</sub> from diesel engine using RSM and ANN Model. *Environmental science and pollution research*, Vol.29, pp.66068–66084.
12. Prakash, Chander., Sunpreet Singh., Vinod Mishra., Rohit Sharma., Kundan Kumar Prasad., Vinod Karar., Alokesh Pramanik., Shankar, S., and Dharam Buddhi., (2022). Ultra-precision diamond Processing of biodegradable AZ31 alloy for orthopaedic application. *Surface Review and Letters*, Vol.29(9), p.2250116.
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15. Balaji, A., Gomathi, K., Rajan, U.N., Mithil, J., Vinunath, A., and Vagish, R.C., (2022). Effect of particle size on mechanical behavior of sugarcane bagasse ash reinforced AlSi10Mg alloy. *Materials Today: Proceedings*, Vol.66(3), pp.1276-1283.
16. Krishnan, H.H., Murugan, P.C., Varughese, J.P., Mithra, N.S., Bakthavatsalam, A.K., Premalatha, M.M., and Ajesh, F., (2022). Effect of solar shading device inside the cavity of double skin facade for increasing energy efficiency: An experimental study. *AIP Conference Proceedings*, Vol.2520(1), p.030006.
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21. Anli Sherine., Geno Peter., Albert Alexander Stonier., Desmond Wong Leh Ping., Praghsh, K., and Vivekananda Ganji., (2022). Development of an Efficient and Secured E-Voting Mobile Application using Android. *Mobile Information Systems*, Vol.2022, Article ID: 8705841.
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23. Sarathkumar Duraisamy., Srinivasan Murugesan., Raymon Antony Raj., and Manikandan Palanichamy., (2022). Restoration of critical dielectric properties of waste/aged transformer oil using biodegradable biopolymer-activated clay composite for power and distribution transformers. *Biomass Conversion and Biorefinery*, Vol.12, pp.4817–4833. <https://doi.org/10.1007/s13399>
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  41. Velliyangiri, G., Krishnamoorthy, V., Inbaraj, C., Venkatachalam Anbumani., Rahim, R., and Ramachandran, M., (2022). Blockchain and Artificial Intelligent for Internet of Things in e-Health. *Convergence of Artificial Intelligence and Blockchain Technologies: Challenges and Opportunities*, pp.23-42.
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54. Gunasekar, M., Panneerselvam, A., Sneharathna, V., Suganneshan, M., and Logeswaran, K., (2022). Improved Facial Emotion Recognition using Yolo and Deep Face for Music suggestion. *3<sup>rd</sup> International Conference on Electronics and Sustainable Communication Systems (ICESC)*, pp.1124-1127, IEEE.
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65. Manjula Devi, R., Keerthika, P., Suresh, P., Partha Pratim Sarangi., Sangeetha, M., Sagana, C., Devendran, K., and Devi, R.M., (2022). Retina biometrics for personal authentication. *Machine Learning for Biometrics*, Elsevier, pp.87-104. <https://doi.org/10.1016/B978-0-323-85209>
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