



Vel Tech
Rangarajan Dr. Sagunthala
R&D Institute of Science and Technology
(Deemed to be University Estd. u/s 3 of UGC Act, 1956)

School of Electrical and Communication

Department of Biotechnology

Calendar year -2024

| S. No | Name of the Faculty | Title of the Article | Journal Name | Quartile Category | Impact Factor |
|-------|---------------------------|---|---|-------------------|---------------|
| 1 | Dr P Azhagu Saravana Babu | Effective Inhibition of Enzymatic Browning and Carcinogenic Acrylamide in Fried Food by Polyphenols | Topics in Catalysis | Q2 | 2.8 |
| 2 | Dr P Azhagu Saravana Babu | Exploration of Bioactive Compounds from Sargassum myriocystum A Novel Approach on Catalytic Inhibition Against Free Radical Formation and Glucose Elevation | Topics in Catalysis | Q2 | 2.8 |
| 3 | Dr P Azhagu Saravana Babu | Antioxidant and Cardioprotective Property of Polyphenols from Natural Sources on Protein Denaturation and Vasorelaxation in Chick Embryo Model A Replacing Study for Animal Model Testing | Topics in Catalysis | Q2 | 2.8 |
| 4 | Dr P Azhagu Saravana Babu | Terpenoids and Fatty Acid Esters from Underutilized Tiliaceae Shrub Exhibit In Silico Bioactivity and Protein Targets | Topics in Catalysis | Q2 | 2.8 |
| 5 | Dr P Azhagu Saravana Babu | Exploration of therapeutic potential and pesticidal activity of Sapindus mukorossi by In vitro and Insilico profiling of phytochemicals | Journal of Molecular Structure | Q2 | 3.8 |
| 6 | Dr P Azhagu Saravana Babu | Study on Electrochemical Stability and Charge Transfer Efficiency for the Development of High-Performance Supercapacitors Using Iron Oxide (Fe ₂ O ₃) Nanorods | Journal of New Materials for Electrochemical System | Q3 | 0.7 |

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| 7 | Dr. K. Jagajjanani Rao | A colorimetric sensor for the stable and selective detection of mercury ions using PAH-capped silver nanoparticles in an aqueous medium | Applied Nanoscience | Q2 | 3.8 |
| 8 | Dr.R. Ravikumar | Cultivation of chlorella vulgaris using aquaculture wastewater: Assessing its viability as a promising resource for biodiesel production | Desalination and Water Treatment | Q3 | 1 |
| 9 | Dr.R. Ravikumar | Environmental impact assessment via life cycle analysis on ultrafiltration membrane fabricated from polyethylene terephthalate waste to treat microalgal cultivation wastewater for reusability | Environmental Research | Q1 | 7.7 |
| 10 | Dr. Mugesh. S | Production of polyhydroxybutyrate (PHB), a biodegradable polymer from seaweed biomass using novel bacterial isolates | Journal of Molecular Structure | Q2 | 3.8 |
| 11 | Dr. Sai Sateesh Sagiri | Investigating the Emulsifying Mechanism of Stereoisomeric Sugar Fatty Acyl Molecular Gelators | Langmuir | Q2 | 3.7 |
| 12 | Dr. Sivashankar. R | Investigation of the influence of Candida tropicalis on bioethanol production using sugarcane bagasse: stochastic and in silico analysis | Environmental Science and Pollution Research | Scopus | - |
| 13 | Dr. R. Sai Nandhini | Carbon nanomaterials: Pioneering innovations in bioimaging and biosensing technologies | Journal of Molecular Structure | Q2 | 3.8 |
| 14 | Dr. R. Sai Nandhini | Recent Development and Future Aspects: Nano-Based Drug Delivery System in Cancer Therapy | Topics in catalysis | Q2 | 2.8 |
| 15 | Dr.Nirmala Nithya.R | Extraction of micro fibrous cellulose from coconut husk by using chlorine free process: Potential utilization application as a filter aid | Journal of Molecular Structure | Q2 | 3.8 |

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| 16 | Dr. Nirmala Nithya.R | Facile synthesis of mesoporous zinc oxide nanoparticle as a drug delivery system evaluated by IVIVE in PBPK modeling | Advances in Natural Sciences: Nanoscience and Nanotechnology | Q2 | 2.28 |
| 17 | Dr. Nirmala Nithya.R | Production of polyhydroxybutyrate (PHB), a biodegradable polymer from seaweed biomass using novel bacterial isolates | Journal of Molecular Structure | Q2 | 3.8 |
| 18 | Dr. Tarangini korumilli | Sericin-Chitosan-Aloe vera Composite Coating for the Postharvest Shelf-Life Improvement of Strawberries | Food Biophysics | Q1 | 2.8 |
| 19 | Dr. Tarangini korumilli | Hydrophobic, oil-repellent, and antimicrobial guar gum-chitosan composite paper coating for sustainable food packaging | Journal of Applied Polymer Science | Q2 | 3 |
| 20 | Dr. Tarangini korumilli | Optimising Biosynthesis of Antimicrobial Copper Nanoparticles Using Aqueous Aegle marmelos Leaf Extract-Based Medium | Ecological Chemistry and Engineering S | Q3 | 2.5 |
| 21 | Dr. Tarangini korumilli | Multifunctional sericin-chitosan-aloe vera composite film for food packaging | Ecological Chemistry and Engineering S | Q3 | 2.5 |
| 22 | Dr.S. Chandramohan | A novel occurrence of polymorphic self-assembled zinc oxide nanoparticles encapsulated by sodium alginate and pectin | Journal of Nanoparticle Research | Q2 | 2.1 |
| 23 | Dr. Sugumari Vallinayagam | Magnesium nitrate-tricine nanoparticles: Temperature impact to enhancing third order optical nonlinearity | Journal of Molecular Liquids | Q1 | 5.3 |
| 24 | Dr. Sugumari Vallinayagam | Enhancing mechanical performance of kenaf fiber reinforced polymer composites: influence of fiber characteristics and processing techniques | Interactions | Scopus | - |
| 25 | Dr. Sugumari Vallinayagam | Remediation and management techniques for industrial dairy wastewater and sludge: a review | Journal of Material Cycles and Waste Management | Q2 | 4.4 |
| 26 | Dr. Sugumari Vallinayagam | Optical maneuvering of photofunctioning hybrid | Journal of Molecular | Q1 | 5.3 |

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| | | perovskite for future photonics potential application | Liquids | | |
| 27 | Dr. Sugumari Vallinayagam | A Systematic Study and Biomedical Investigation on O-Terphenyl Incorporated Copper (II) Chloride Crystal via Slow Evaporation Technique | Macromolecular Symposia | Scopus | - |
| 28 | Dr. Sugumari Vallinayagam | Arsenic and environment: a systematic review on arsenic sources, uptake mechanism in plants, health hazards and remediation strategies | Topics in Catalysis | Q2 | 2.8 |
| 29 | Dr. Sugumari Vallinayagam | Tricine Incorporated Potassium Metal Ion Crystal: Antibacterial and NLO Activities | Topics in Catalysis | Q2 | 2.8 |
| 30 | Dr. R. S. Achshah | Statistical Assessment of Water Quality Parameters for Pollution Source Identification in Noyyal River, Coimbatore, Tamilnadu | Global NEST Journal | Q3 | 1 |
| 31 | Dr. R. S. Achshah | A Comprehensive Review on CO ₂ Capture Process using Amine-Ionic Liquids Mixtures | Global NEST Journal | Q3 | 1 |
| 32 | Dr. R. S. Achshah | Enhancing Surface Quality and Tool Longevity in EDM of D2 Steel Using Copper Composite Tools | Journal of Environmental Nanotechnology | Q3 | - |
| 33 | Dr. Bisheswar Karmakar | A critical science mapping approach on removal mechanism and pathways of per- and poly-fluoroalkyl substances (PFAS) in water and wastewater: A comprehensive review | Chemical Engineering Journal | Q1 | 13.4 |
| 34 | Dr.G. Prasannamedha | Immobilization of hydrochar in cellulose beads for eradicating paracetamol from synthetic and sewage water | Environmental Pollution | Q1 | 7.6 |
| 35 | Dr.V. Leena Sharan | Recent advances in in vitro and in vivo studies on Kappaphycus alvarezii and its derivatives | Natural Product Research | Q2 | 1.9 |
| 36 | Dr.S. Shobana | Microwave-assisted green synthesis of silver nanoparticles using Cynoglossum furcatum | Materials Technology | Q3 | 2.9 |

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| | | extract: biomedical evaluation against A431 skin cancer cell line | | | |
| 37 | Dr.S. Shobana | Facile synthesis and optical characterization of selenium nanoparticles synthesized using Clitoria ternatea and Zingiber officinale: in vitro biomedical evaluation of antioxidant potential and antibacterial activity against caries-causing microbes | Materials Technology | Q3 | 2.9 |
| 38 | Dr.S. Shobana | Green fabrication of silver nanoparticles using leaf extract of tropical vine Momordica charantia: spectral characterization and in vitro cytotoxicity evaluation on human breast cancer cells | Materials Technology | Q3 | 2.9 |
| 39 | Dr.S. Shobana | Ozone assisted alternating current-electrocoagulation technique for color and COD removal with determination of electrical energy from industrial wastewater | Separation and Purification Technology | Q1 | 8.6 |
| 40 | Dr.S. Shobana | Eco-friendly synthesis of silver nanoparticles using Phyllanthus niruri leaf extract: Assessment of antimicrobial activity, effectiveness on tropical neglected mosquito vector control, and biocompatibility using a fibroblast cell line model | Open Chemistry | Q3 | 2.3 |
| 41 | Dr.S. Shobana | Integrative bioinformatics analysis of transcriptomic data from CD8+ T cells in Systemic Lupus Erythematosus | Journal of King Saud University - Science | Q1 | 3.7 |
| 42 | Dr.S. Shobana | Selenium-chitosan engineered nanocomposite as efficient formulated fish diet evaluated for sustainable aquaculture practice of Oreochromis niloticus (Nile tilapia) fishes | Polymers advanced technologies | Q2 | 3.4 |

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| 43 | Dr.S. Shobana | Selenium Nanoparticles: A Comprehensive Examination of Synthesis Techniques and Their Diverse Applications in Medical Research and Toxicology Studies | Molecules | Q2 | 4.2 |
| 44 | Dr.S. Shobana | Therapeutic Potential of Withaferin-A and Propolis Combinational Drug Therapy for Breast Cancer: An In Vivo Interpretation for Validating the Antiproliferative Efficacy and Ameliorative Potential in Benzo[a]pyrene-Induced Breast Metastasis | Journal of Chemistry | Q2 | 2.8 |
| 45 | Dr.S. Shobana | Biohythane production techniques and recent advances for green environment – A comprehensive review | Process Biosafety and Environmental Protection | Q1 | 7.5 |
| 46 | Dr.S. Shobana | One Pot Synthesis, characterization, morphology and optical profilometry properties of La-doped and La–Ag-doped cobalt oxide nanoparticles | Materials Technology | Q3 | 2.9 |
| 47 | Dr.S. Shobana | Aloe vera - mediated silver-selenium doped fucoidan nanocomposites synthesis and their multi-faceted biological evaluation of antimicrobial, antioxidant and cytotoxicity activity | Materials Technology | Q3 | 2.9 |