

**IQAC – Research and Development**

**Centre for Research @ Research Park**

# Research Newsletter



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**Editors : Mr S Vignesh & Dr K Rajalashmi**

**Head R&D : Dr M Bharathiraja**

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## **Vision**

- To be a centre of excellence, providing world-class education that transforms individuals into intellectual, empathetic and responsible citizens

## **Mission**

- To indulge in extensive core and multi-disciplinary research activities
- To integrate research and education
- To develop core group of faculty members with high research potential

## **Specific Objectives**

- Effective utilization of existing facilities and to establish new facilities
- Enable faculty members and students to translate the knowledge and research into new products to improve the lifestyle of the people
- Ensure timely disclosure of all potential Inventions / Innovations and results of research activities by faculty members/students through patents or proper mode of publications with relevant property rights

## Recent Initiative

### Creation of sophisticated research facility for the benefit of research community



The Field Emission Scanning Electron Microscope (field emission SEMs with a field emission electron source) produces high resolution images in nanoscale by scanning the sample with a high-energy beam of electrons. As the electrons interact with the sample, they produce secondary electrons, backscattered electrons, and characteristic X-rays. FESEM scan a sample with a focused electron beam and deliver images with information about the samples topography and composition.

FESEM's from Zeiss combine field emission SEM (FE-SEM) technology with analytics deliver high resolution surface information and superior materials contrast.

BIT is recently equipped with new Carl Zeiss FESEM (Sigma-300, Schottky FEG) to world class lab facility which provides support to users from internals and externals from academics and industries with less analysis charges.

The ability to examine smaller-area contamination spots at electron accelerating voltages compatible with Energy Dispersive X ray spectroscopy (EDS) for elemental analysis, Multi-point spectra, Line-scan, Mapping, Quantification, and Drift Correction.



## **Central Research Facility**

### **Research labs**

- Biomolecular Characterization and Instrumentation Lab
- Instrument Calibration Lab
- Fabric Surface Enhancement Lab
- Functional Macro Molecular Enhancement Lab
- Engine and Fuels Testing Lab
- Materials Processing and Testing Lab
- Electrical Power Analysis Research Lab
- Aircraft Materials Testing Lab
- Liquid Crystals Research Lab
- Quantum Computing and Phytochemistry Research Lab
- Condensed Matter Research Lab
- Advanced Materials Research Lab
- Subsonic Airflow Testing Lab
- Materials Characterization FESEM Lab

## **Advanced Computing Facility**

### **Softwares**

- MATLAB
- Cadence Tools Suite
- LabVIEW
- Oracle 11g
- Ansys 18.0
- CREO
- CATIA V5
- NX CAM Express
- Solidworks 16
- Altair HyperMesh
- IPG CarMaker
- Autoware

## Faculty Publications (Total – 261)

1. A. Stephen Sagayaraj, S. Elango, S. Srinivasan, M. Aravinth and G Monish, 2022, Identification and analysis of GAIT using neural network pattern recognition system, Indian journal of natural sciences, 13, 75, 49639.
2. A. Stephen Sagayaraj, S. Elango, S. Srinivasan, M. Aravinth and G Monish, 2022, Identification and analysis of gait using neural network pattern recognition, Indian journal of natural sciences, 13, 75, 49639.
3. A. Tajdeen, M. Wasim Khan, K. Kamal Basha, E. Sakthivelmurugan, Neeraja Koppula, 2022, Experimental investigation and optimization of EDM process parameters on en31 steel using genetic algorithm, Materials today: proceedings, 64, 1, 821.
4. A. Sheela, T. Logeswaran, S. Revathi, K. Rajalashmi, 2022, Distributed MPPT configuration for improving solar energy production, IEEE xplore digital library, In Press.
5. A. Tajdeen, A. Megalingam, M. Sivanesh Prabhu, M. Wasim Khan, 2022, Role of tungsten disulfide particles on the microstructure, mechanical, and tribological behaviors of friction stir-processed magnesium-based composite, Journal of tribology, 145, 1, 14501.
6. A. Vino, K. Kalaichelvan, S. Sajith, G. Kumaresan, 2022, Studies on flexural properties and construction of failure mode map for copper sandwich panels, Archives of metallurgy and materials, 67, 4, 1371.
7. A. Vivek Anand, G. Sivaraj, P. Velmurugan, K. Srinivas Rao, Muhammed Anaz Khan, P. S. Prem Kumar, 2022, Interpretive structural modelling approach: implementation of sustainability concept and lean in aerospace sectors, AIP conference proceedings, 2446, 1, 170014.
8. A.Nandhakumar, Mithulkiruthik K, Kiritharan, Karthick K, 2022, Design and development of a 2-liter flush system for squat latrine, IOP conference series: earth and environmental science, 1125, 1, 1.
9. Ajin R Nair, 2022, Nature inspired approach toward elimination of nonlinearities in swept enabled energy harvesting networks, IEEE, 10, 1, 100837.
10. Ajin R Nair, S. Kirthiga, 2022, Impact of total harmonic distortion in swept enabled wireless communication networks, IEEE, In Press.
11. Ajin R. Nair, S. Kirthiga, M. Jayakumar, 2022, Estimation and compensation of IQ imbalance in swept system, International journal of electronics and telecommunication, 67, 4, 679.
12. Al Tahan M, Davvaz B, Parimala M, Al-Kaseasbeh S, 2022, Linear dIOPhantine fuzzy subsets of polygroups, Carpathian math. publ., 14, 2, 564.
13. Anandha Babu G, 2022, Simulation and analysis of lead-free perovskite solar cells incorporating cerium oxide as electron transporting layer, Rsc advances, 12, 50, 32365.
14. Arivu Y., Uvaraja V C., Thiyaneshwaran N. & Ram Prabhu T, 2022, Synthesis, processing and phase analysis of quasi crystal particle reinforced aluminium matrix composite, Materials and manufacturing processes, 12, 16, 12.

15. Arobindo Chatterjee, Harwinder Singh, Khushboo Chaudhary, 2022, Nonwoven viscose fabric-polyvinyl alcohol based flexible composite, Journal of vinyl & additive technology, In Press.
16. Arulmurugan L, 2022, Leakage current reduction in static cmos VLSI circuits using back search algorithm, Indian journal of natural sciences, 13, 74, 48985.
17. Arun Jayakar S, 2022, A beam steering dielectric resonator antenna designed using rogers ro4003c material for s-band applications, Hindawi advances in materials science and engineering, 2022, 1, 1.
18. Arun Kumar Rajamanickam and Uvaraja V C, 2022, Assessment of mechanical properties of Im13 aluminum alloy hybrid metal matrix composites, Materials research express, 9, 1, 11.
19. Arun Shalin L V, 2022, Cancer prediction using rna sequencing and machine learning, Neuroquantology, 20, 10, 1729.
20. Arunachalam Thirunavukkarasu , Sivashankar Raja , Rajarathinam Nithya , Arunachalam Bose Sathya , Venkatachalam Priyadharshini , Balakrishnan Premkumar, Murugan Muthuveni and Sakthishobana K, 2022, Sustainable organic waste management using vermicomposting: a critical review on the prevailing research gaps and opportunities, Environmental science: processes and impacts, In Press.
21. Arunkumar M S ; Sathishkumar P ; Suguna R ; Deepa S , 2022, An internet of things based waste management system using hybrid machine learning technique, IEEE xplore, In Press.
22. Ashok Kumar A, 2022, Mosquito repellent finish, Asian textile journal, 31, 6, 54.
23. Ashokan S, 2022, Growth of non- enzymatic cholesterol biosensor using tio2 decorated graphene oxide with bare gce and ppy-gce -, J polymer materials, In Press.
24. Ashokan S, 2022, Impact of mno2 on the optical electrical and antibacterial characteristics of graphite/polyaniline ternary composites, Journal of materials science: materials in electronics, In Press.
25. Ashwin Raj S, 2022, In vitro and in silico studies on the antioxidant and anti-inflammatory potential of piperine extracted from piper nigrum, Research journal of BIOTechnology, 18, 1, 75.
26. Athimoolam Sundaramahalingam & Selvaraj Jegadheeswaran, 2022, Heat transfer enhancement of latent heat storage using novel quadruple helical fins, Heat transfer engineering, In Press.
27. B. Barath Kumar, C. N. S. Vinoth Kumar, R. Suguna, M. Vasim Babu & M. Madhusudhan Reddy , 2022, An implementation perspective on electronic invoice presentment and payments, Springer - lecture notes in networks and systems, 514, 1, 664671.
28. B. Jeyanth , M. Thillaibackiam , A. Karthick , M. Sakthivel, 2022, Experimental study on soil aquifer treatment for water quality improvement, Materials today: proceedings, In Press.
29. B. Kalidasan, Muhammed A. Hassan, AK Pandey, C. Subramaniyan, 2022, Linear cavity solar receivers: a review, Applied thermal engineering, 221, 1, 1.

30. B. Muthuraj, G. Suresh Babu, K. Krishnaveni & S. Arun Jayakar, 2022, Parameters' optimization in compressed air pressure process using hybrid fmin-ga-based pid and fractional order internal model controller, IETE journal of research, In Press.
31. B. Siddharthan , A. Kumaravel , Jones Praveen J, 2022, Mechanical and electrical characterization of aluminium alloy metal matrix composites reinforced with graphite, Materials today: proceedings, 66, 3, 1413.
32. Balamurugan R, 2022, Design and analysis on interference effects of internal cooling air flow on car bonnet scoop, Lecture notes in mechanical engineering, In Press.
33. Balasamy K, 2022, Prediction of cardiac disease by the use of methods from machine learning, Indian journal of natural sciences, 13, 73, 47264.
34. Baranidharan V, 2022, A comprehensive survey on different routing protocols and challenges in underwater acoustic sensor networks, Lecture notes in electrical engineering, 906, 39, 309.
35. Baranidharan V, 2022, A survey of antipodal vivaldi antenna structures for current communication systems, Lecture notes on data engineering and communications technologies, 131, 92, 191.
36. Baranidharan V, 2022, Substrate integrated waveguides analysis for different dielectric materials—a comprehensive survey, Lecture notes in electrical engineering, 906, 40, 321.
37. Baranidharan V, 2022, Survey on wideband mimo antenna design for 5g applications, Lecture notes on data engineering and communications technologies, 131, 94, 201.
38. Bharathi A, 2022, A new design of diabetes detection and glucose level prediction using moth flame-based crow search deep learning, Biomedical signal processing and control, 77, 1, 1.
39. C Ganesh Babu, M Gowri Shankar & Harikumar Rajaguru, 2022, Performance exploration of multiple classifiers with grid search hyperparameter tuning for detecting epileptic seizures from eeg signals, Journal of scientific & industrial research, 81, 7, 754.
40. C Indirani, K Meenambika, D Indhumathy, V S Kavinkumar, 2022, Preparation of soap using a steam extraction process from leaves of azadirachta indica, ocimum basilicum, hibiscus -rosa-sinensis flowers, acalypha indica and aloe barbadensis leaflets, IOP conference series: earth and environmental sciences, 1057, 12007, 1.
41. C Mohan Bharathi, S Anitha, G Karthikeyan, T Karthikeyan, G Arun Kumar, S M Udaya Krithika, K Mani, S Nivetha, 2022, Sericin treated spunlace fabric for wound healing, Asian textile journal, In Press.
42. C. Akshayya , M. Swedha , Abdallah M. Elgorban , Ali H. Bahkali , Rajender S. Varma, Mohammed Younus , R. Balakrishnaraja , Asad Syed , S. Sudheer Khan, 2022, Intimate coupling of 3d mnfe<sub>2</sub>o<sub>4</sub> cubes on 1d zno nanorods for sustainable photocatalysis under visible light: computational analysis of reactive sites and degradation pathway, Journal of the taiwan institute of chemical engineers, 148, 1, 104558.
43. C. Sugunadevi, Sam Gilvine Samuvel, Senthil Velan, L. Priya, 2022, An electronic medical record management system in healthcare with classification of diseases, Journal of xidian university, 16, 7, 710.



44. Chinnadurrai C L, 2022, Optimal dispatch of generators based on network constrained to enhance power deliverable using the heuristic approach, Environmental science and pollution research, In Press.
45. D. Selvamuthukumaran, N. Babu, M. Samuel Gemsprim, 2022, Cfd analysis of axisymmetry cylinder in heave, AIP conference proceedings, 2527, 1, 1.
46. Deepan Kumar, S., Boopathi, M., Suresh, M., Kumar, V.S., 2022, Feasibility analysis of submerged battery cooling system for electric vehicles, SAE international technical papers, In Press.
47. Deepan Kumar, S., Dhayaneethi, S., Manojkumar, R., Gopal, M., 2022, Investigation on thermophysical characterization of nano composite phase change materials for battery cooling in ev, SAE international, In Press.
48. Deepan Kumar, S., Karthik, R., Boopalan, N., Balakrishnan, S., 2022, Experimental investigation on the wear and tear characteristics of chrome and moly coated piston rings used in automobile engine application, SAE technical paper, In Press.
49. Deepan Kumar, S., Sivananth, V., Tamilselvan, A., Praveenkumar, N, 2022, Experimental investigation on the tensile and wear characteristics of journal bearing materials used in automobile engine application, SAE international, In Press.
50. Dhanapriya G, 2022, Business strategies to impulse buying behavior of the consumer, International journal of engineering technology research & management, 6, 10, 26.
51. Dhanapriya G, 2022, Post consumer cotton into a garment, International journal of engineering technology research & management, 6, 11, 80.
52. Dhandapani Sathish , Selvaraj Jegadheeswaran , Murugan Veeramanikandan, 2022, Enhancing the thermo-economic performance of mobile solar desalination system with dual reflectors, phase change materials and insulator cover: experimental investigations, Applied thermal engineering, 217, 1, 119210.
53. Dhinesh S K, Prasad K S, 2022, Design and fabrication of 3d printed bionic arm, High technology letters, 28, 11, 97.
54. Dhivya P, 2022, Ai based intelligent data extraction engine, Journal of xidian university, 16, 11, 1.
55. Dhivya P, 2022, Hybrid firefly meta optimization for bio medical image processing using deep learning, Journal of pharmaceutical negative results, 13, 4, 1199.
56. Dhivya P, 2022, Robotic assistants from personalized care to disease diagnosis and treatment plans in healthcare applications, Computational intelligence in robotics and automation,taylor and francis, In Press.
57. E. Dinesh Kumar, K. Sharinaa Juhee, Harwinder Singh, 2022, Natural fibre reinforced composite, International journal of recent advances in multidisciplinary topics, 3, 10, 67.
58. E. L. Pradeesh, S. Udhayakumar, M. G. Vasundhara, G. K. Kalavathi, 2022, A review on piezoelectric energy harvesting, Microsystem technologies, In Press.

59. Elango S, 2022, Low-power sram cell and array structure in aerospace applications: single-event upset impact analysis, Wireless personal communications, In Press.
60. G. Ramesh, V. C. Uvaraja, B. Gnanasundara Jayaraja, Pravin P. Patil, 2022, Development of epoxy-based fiber metal laminate using nanosilica and abelmoschus esculentus fiber for steam turbine applications, Biomass conversion and biorefinery, 12, 11, 234.
61. G. Ramesh, V. C. Uvaraja, B. Gnanasundara Jayaraja, Pravin P. Patil, 2022, Fatigue, fracture toughness and dma of biosilica toughened epoxy with stacked okra fiber and al 2024-t3 fiber metal laminate composite, Polymer composites, 43, 9, 6300.
62. G. Sivapriya, V. Praveen, P. Gowri, S. Saranya, S. Sweetha, Kukunoor Shekar , 2022, Segmentation of hard exudates for the detection of diabetic retinopathy with rnn based semantic features using fundus images, Materials today:proceedings, 64, 1, 693.
63. Ganesh Babu , Sudhahar S, 2022, Open loop subspace identification of a foptd system, Conference proceedings second international conference on smart technologies, communication and robotics, 1, 1, 478.
64. Geethamani R, 2022, Investigation of soil characteristics in and around the open dump site near sathyamangalam town in erode district, Lecture notes in civil engineering, 298, 1, 213.
65. Girinath N, Ganesh Babu C,Vidhya B, Surendar R,Abhirooban T, Sabarish V, 2022, IOT based threat detection and location tracking for women safety, IEEE proceedings of international conference on edge computing and applications, In Press.
66. Gnanaprakash V, 2022, Performance analysis of improved particle swarm optimization for fabric defect detection, IEEE, 1, 1, 559.
67. Goldvin Sugirtha Dhas. B and Deepa S.N, 2022, A hybrid rcga–dgsa algorithm for maximum power point tracking of pv system, Indian journal of natural sciences, 13, 72, 43614.
68. Gomathi R, 2022, Review of skin disease classification using machine learning methods, Neuroquantology, 20, 15, 2218.
69. Gopika N P, 2022, Arduino interfacing of flc-based power flow management in smart microgrid systems, Iete journal of research, In Press.
70. Gowthami S, 2022, Improved self attention generative adversarial adaptation network classification of melanoma cancer types, Journal of intelligent fuzzy systems, In Press.
71. Harwinder Singh and Arobindo Chatterjee, 2022, Characterization of interface of corn-husk film reinforced composites, Atomic energy, In Press.
72. Ibtesam Alshammari, Mani Parimala, Cenap Ozel, and Muhammad Riaz , 2022, Spherical linear diOPhantine fuzzy topsis algorithm for green supply chain management system, Journal of function spaces, 1, 1, 12.
73. Ibtesam Alshammari, Mani Parimala, Cenap Ozel, Muhammad Riaz and Rania Kammoun, 2022, New mcdm algorithms with linear diOPhantine fuzzy soft topsis, vikor and aggregation operators, Mathematics, 1, 1, 1.

74. J. Arthur Vasanth, R. Nidharshan and R.T. Raswanth, 2022, Picture comprehension with neural networks, Indian journal of natural sciences, 13, 72, 249.
75. J. Nirmaladevi, M. Vidhyalakshmi, E. Bijolin Edwin, N. Venkateswaran, Vinay Avasthi, Abdullah A. Alarfaj, Abdurahman Hajinur Hirad, R. K. Rajendran, and Tegegne Ayalew Hailu, 2022, Deep convolutional neural network mechanism assessment of covid-19 severity, Biomed research international, 2022, 1, 1.
76. J. Poongodi, K. Kavitha and S. Sathish, 2022, Healthcare internet of things data security enhancement using blockchain technology, Journal of intelligent & fuzzy systems, 43, 4, 5063.
77. J. R. Dinesh Kumar & C. Ganesh Babu, 2022, Performance investigation of a modified hybrid parallel prefix adder for speedy and lesser power computations, Iete journal of research, In Press.
78. Jayaraman A, 2022, Monitoring of corrosion level in nanocomposite reinforced concrete specimens using zirconium oxide potential sensor, Iranian journal of science and technology, transactions of civil engineering, In Press.
79. Jeevanantham M, Dev Anand S, Pranav Anand V, Kishore R, Padmashree A, Tharani Priya R, 2022, Blockchain based security preserving framework for healthcare4.0 using hyperledger fabric, Gradiva review journal, 8, 8, 530.
80. Jeevanantham V, 2022, Research on sustainable development for environmental management, Environmental science and pollution research, In Press.
81. Jothimani S, 2022, Advanced deep learning techniques with attention mechanisms for acoustic emotion classification -, IEEE explore, In Press.
82. Jothimani S, 2022, Mff-saug: multi feature fusion with spectrogram augmentation of speech emotion recognition using convolution neural network -, Chaos, solitons & fractals, 162, 1, 112512.
83. K Muthukumar, K Amirtham, A Sundaramahalingam, 2022, Study on spontaneous combustion and environmental pollution in a coal storage yard, IOP conference series: earth and environmental science, 1125, 1, 1.
84. K. Prabhavathi , R Santhi, P Revathy, 2022, Edge domination in signed graphs, Journal of algebraic statistics, 13, 3, 1423.
85. K. S. Usha, P. Rohini, J. Vivekanandan, N. Pongali Sathya Prabu & M. L. N.Madhu Mohan, 2022, Investigations on thermotropic hydrogen bond liquid crystals, Molecular crystals and liquid crystals, In Press.
86. K. Saranya and K. Premalatha, 2022, Multi attribute case based privacy-preserving for healthcare transactional data using cryptography, Intelligent automation & soft computing, 35, 2, 2029.
87. K. Suresh, P. Selvakumar, G. Kumaresan, M. Vijayakumar, M. Ravikumar, N. Rachael Jenita, 2022, A critical review on the effect of morphology, stability, and thermophysical properties of graphene nanoparticles in nanolubricants and nanofluids, Journal of thermal analysis and calorimetry, In Press.

88. Kamalraj D, Aruna Sampath, 2022, Investigation of the traditional leather manufacturing and other leather alternatives, Man made textiles in india, L, 10, 266271.
89. Kannan K P, 2022, A preliminary investigation on the production of lovastatin from an endophytic fungus nigrospora sp. isolated from cymbopogon schoenanthus, Research journal of chemistry and environment, 27, 1, 104.
90. Kannan V, Karthiga Shenbagam Natarajan, 2022, Gravimetric weight loss of steel in self\_compacting concrete blended with wood ash and silica fume, Environmental science and pollution research, 29, 41, 113.
91. Kannimuthu Subramanian, Premalatha K, 2022, Mining high utility itemsets using genetic algorithm based-particle swarm optimization, Journal of intelligent & fuzzy systems, In Press.
92. Karthick Arumugam , Balaganesh Pandiyan , Jeyanth Baskaran, Vasudevan Mangottiri , 2022, Evaluation of water quality index for assessing groundwater appraisal near solid waste dumpsite at ariyamangalam, trichy, tamil nadu, Materials today: proceedings, In Press.
93. Karthiga M, 2022, Alzheimer's dementia: diagnosis and prognosis using neuro-imaging analysis, Journal of pharmaceutical negative results, 13, 4, 46.
94. Karthiga M, 2022, Optimizing high-utility item mining using hybrid dolphin echolocation and boolean grey wolf optimization, Journal of ambient intelligence and humanized computing, In Press.
95. Karthiga Shenbagam N, 2022, Gravimetric weight loss of steel in self-compacting concrete blended with wood ash and silica fume, Environmental science and pollution research, 29, 48, 1.
96. Karthiga Shenbagam N, 2022, Strength and durability characteristics of steel fiber reinforced geopolymer concrete with addition of waste materials, Environmental science and pollution research, 29, 49, 1.
97. Karthiga Shenbagam N, 2022, Studies on workability, microstructural and hardened strength properties on self-compacted geopolymer concrete subjected to ambient curing, Environmental science and pollution research, 29, 49, 1.
98. Karthikamani R, Harikumar Rajaguru, 2022, Detection of liver abnormalities a new paradigm in medical image processing and classification techniques, International journal of imaging systems and technology, 22782, 1, 1.
99. Karthikeyan S , Leeban Moses M , Perarasi T and Raju, 2022, Machine learning based air pollution monitoring and predicting cause for pollution, IOP conference series: earth and environmental science, 1125, 12, 1.
100. Kavya G.S, Rajesh T , 2022, Novel methodology of niosome loaded scaffold for tissue regeneration, Institute of electrical and electronics engineers, In Press.
101. Krishnamoorthy V, 2022, An analysis of machine learning depend on q-mind for defending the distributed denial of service attack on software defined network, International journal of early childhood special education, 14, 5, 3769.



102. Krishnamoorthy V, 2022, Reliable data storage and sharing using block chain technology and two fish encryption, IEEE, In Press.
103. Krishnamoorthy V, 2022, Web hazard identification and detection using deep learning - a comparative study, Journal of pharmaceutical negative results, 13, 4, 1052.
104. Krishnaraj R, 2022, Electromyography signal based prosthetic arm for handless persons, Indian journal of natural sciences, 13, 73, 47271.
105. Kumar, V.S., Balamurugan, R., Thiagarajan, R., Yaswanth, M., 2022, Testing and validation of aebs on a curved road path by integrating vehicle dynamics in four wheelers using ipg carmaker to enhance pedestrian safety, SAE international, In Press.
106. L. V. Arun Shalin, K. Kalaivani, Patil Vishal Ratansing & J. Sathish Kumar, 2022, Prognostic analysis and early prediction of lung cancer through gene analysis, Cybernetics and systems, In Press.
107. L.G. Divyanth & V. Chelladurai & M. Loganatha3 & Digvir S. Jayas & Peeyush Son, 2022, Identification of green gram (vigna radiata) grains infested by callosobruchus maculatus through x-ray imaging and gan-based image augmentation, Journal of biosystems engineering, In Press.
108. Lakshmi Narayana M Mohan, 2022, Investigations on dielectric relaxations, memory and thermistor applications in a liquid crystal nematogen, Liquid crystals, In Press.
109. M. Jeyakymar, V. Munusami, P. Shanmugam, N. Boopalan, Sampath Boopathi, M. Sureshkumar, 2022, An investigation on wear loss and hardness of nitro-carburizing coated stainless-steel grade-316, Materials today: proceedings, 3, 1, 1398.
110. M. Kalaiyarasi and Harikumar Rajaguru, 2022, Performance analysis of ovarian cancer detection and classification for microarray gene data, Biomed research international, 2022, 1, 1.
111. M. Karthiga , V. Santhi , S. Sountharajan, 2022, Hybrid optimized convolutional neural network for efficient classification of ecg signals in healthcare monitoring, Bio medical signal processing and control, 76, 1, 103731.
112. M. Karthik, Narayana Ashwath, M. Sundar Raj, 2022, Green and low-cost synthesis of TiO<sub>2</sub> nanoparticles for methanol detection, Asian journal of chemistry, 34, 8, 2123.
113. M. Leeban Moses, M. Ramkumarraja, 2022, An integrated ahp-electre and deep reinforcement learning methods for handover performance optimization in an lte-a networks, Transactions on emerging telecommunications technologies, In Press.
114. Madheswaran Subramaniyan, Sivakumar Karuppan,Pethu Pon Kumar , Peranandhan T and Praveen M, 2022, Investigation on flexural property of sandwich 3d printed pla components - a review, Material science forum, 1075, 1, 103.
115. Maheswari K T, 2022, Design and simulation of standalone pv system using pv sys, Indian journal of natural sciences, 13, 74, 48903.
116. Malathi Balasubramaniyan , Vimalraj Vinayagam , Moni Philip Jacob Kizhakedathil , Pandiarajan Karuppiyah, 2022, In silico, in vitro antimicrobial and antimycobacterial

evaluation of newly synthesized 2r, 6c-diaryl-3t-methylpiperidin-4-one arylsulphonylhydrazones, *Bioorganic chemistry*, 128, 1, 106033.

117. Malathi Balasubramaniyan, 2022, Research article immunomodulatory effects of chitosan nanoparticles as vaccine delivery agent against lymphatic filariasis through mucosal immunization, *International journal of biological macromolecules*, 222, 1, 2392.

118. Manojkumar P, Arulmurugan L, Dheepan Charavarty and Senthilkumar J, 2022, IOT enabled smart agriculture monitoring system, *Indian journal of natural sciences*, 13, 74, 48507.

119. Mekala N, 2022, Dual finish on cotton and polyester and cotton blends, *Asian textile journal*, 31 /8-9, 9, 30.

120. Mohammad K. Okla , S. Balasurya , Ibrahim A. Alaraidh , Asmaa Mohebaldin, Abdullah A. Al-ghamdi , Mohammed A. Al-okla , Mostafa A. Abdel-Maksoud , Ramadan F. Abdelaziz , Walid Soufan , R. Balakrishnaraja , Lija L. Raju , Ajith M. Thomas , S. Sudheer Khan, 2022, Plasma-assisted in-situ preparation of l-cystine functionalized silver nanoparticle: an intelligent multicolor nano-sensing of cadmium and paracetamol from environmental sample, *Spectrochimica acta part a: molecular and biomolecular spectroscopy*, 279, 1, 121330.

121. Mohan Bharathi C, 2022, Development of medical fabrics to enhance lubrication and prevent skin friction associated microbial infections, *Journal of natural fibers*, In Press.

122. Mohan Bharathi C, 2022, Study on influence of count and stitch length on areal density of weft knitted fabrics, *Asian textile journal*, 31, 1, 39.

123. Ms. Sowmmiya S, Dharunesh S, 2022, Simulation of digital garments under the concept of biomorphiam inspired by radiolarians using clo 3d, *International research journal of engineering and technology*, 9, 8, 1790.

124. Munirathinam. T; Gaurav Kumar Ameta; P. Lavanya; S. Sudheer; Surekha Nagrath; Awadhesh Chandramauli, 2022, Blockchain and IOT based smart home health monitoring system with a natural user interface, *IEEE xplore*, In Press.

125. Muthumanickam Dhanaraju , Poongodi Chenniappan, Kumaraperumal Ramalingam, Sellaperumal Pazhanivelan and Ragunath Kaliaperuma, 2022, Smart farming: internet of things (IOT)-based sustainable agriculture, *MDPI agriculture*, 12, 10, 1745.

126. Muthumariappan Akilarasan, Selvarasu Maheshwaran, Shen-Ming Chen, Elayappan Tamilalagan, Munirah D. Albaqami, Reham Ghazi Alotabi, Rameshkumar Arumugam, 2022, In-situ synthesis of bimetallic chalcogenide srs/bi2s3 nanocomposites as an efficient electrocatalyst for the selective voltammetric sensing of maleic hydrazide herbicide, *Process safety and environmental protection*, 165, 1, 151.

127. Mythili S, 2022, Multi featured integrated concurrent neural network for human facial expression recognition, *Journal of internet technology*, 23, 6, 1263.

128. N Vinoth kumar , A Sekar , M Nithya, 2022, Arithmetic-geometric index invarious signed graphs, *Journal of algebraic statistics*, 13, 3, 1309.

129. N. Saranya , N. Kanthimathi , S. Boomika , S. Bavatharani & R. Karthick raja, 2022, Classification and prediction of lung cancer with histopathological images using vgg-19 architecture, Computational intelligence in data science, 654, 1, 151."
130. Nagarajan S, 2022, A study on consumer buying behaviour towards electronic appliances at coimbatore district, Journal of pharmaceutical negative results, 13, 7, 6982.
131. Nandhini, K.M., Kumar, C., Shineka Varshini, A.P., Tharunika, N., Sakthipriya, S.A., 2022, Pathway guided deep neural network towards interpretable and predictive modeling and drug preparation, 2nd international conference on smart technologies, communication and robotics, In Press.
132. Nataraj N, 2022, Benifits of apropos of cloud computing in digital world - a review, Journal of xidian university, In Press.
133. Naveen R & Kumar M, 2022, Enhancing uv resistance of tio2 reinforced kevlar 29 fiber using sol-gel & low-temperature hydrothermal processes, polymer-plastics technology and materials, In Press.
134. P Sureshkumar, C Sasikumar, S Thanga Kasi Rajan, T Jagadeesha, Natrayan L, M Ravichandran , Dhinakaran Veeman and Wojciech Borek, 2022, Evaluation of mechanical and wear properties of aa6063/(si3n4)6%–12%/(cun2o6) composite via pm route and optimization through robust design technique, Materials research express, 9, 7, 1.
135. P. Hariprasad, K. Kumaresan, M. Vijayakumar, G. Kumaresan, 2022, Surface and wear investigation on microwave sintered nitinol composite, Materials research scielo, 25, 1, 1.
136. P. Manoj Kumar , Rajasekaran Saminathan , Mohammed Tharwan , Haitham Hadidi , P. Michael Joseph Stalin , G. Kumaresan , S. Ram , Moti Lal Rinawa , P. T. Saravanakumar , K. Karthikeyan , and Dawit Tafesse Gebreyohannes, 2022, Study on sintered wick heat pipe with cuo nanofluids under different orientation, Journal of nanomaterials, 2022, 1, 1.
137. P. Rajesh Kanna, S. Gokulraj, K. Karthik, G. Vijaya, G. Sathish Kumar, G. Rajeshkumar, 2022, A review analysis of attack detection using various methodologies in network security, Journal of pharmaceutical negative results, 13, 3, 1599.
138. P. Ramya, B. Deepa, R. Nirmala, Malathi Murugesan, K. Rama Abirami, S. Kannadhasan, 2022, Multimode textile array antenna for millimeter wave wearable applications, Journal of communications, 17, 11, 941.
139. Padmashree A, 2022, Comparative analysis of dos attack detection in kdd cup99 using machine learning classifier algorithms, IEEE explore, In Press.
140. Padmashree A, 2022, Decision tree with pearson correlation-based recursive feature elimination model for attack detection in IOT environment, Information technology and control, 51, 4, 771.
141. Pandiyan M, 2022, Optimized ensemble clustering technique to detect the fake news in social media, Indian journal of natural sciences, 13, 73, 47330.
142. Parimala M, 2022, On neutrosophic alpha psi supra open sets, International journal of neutrosophic science, 19, 3, 47.

143. Parthasarathi P, 2022, A ring toss game-based optimized routing protocol for optimal path selection in manet, 3rd international conference on electronics and sustainable communication systems, In Press.
144. Paskalis Sahaya Murpin Kumar, Subramanian Arulmani, Hyoung-il Kim, Deepthi Koolath Ramakrishnan, Vinoth Kumar Ponnusamy, Umapada Pal, and Siva Kumar Krishnan, 2022, An efficient and durable electrocatalyst based on strongly coupled pt nanoparticles on ceo<sub>2</sub> microspheres for co-resilient methanol oxidation, The journal of physical chemistry, 126, 44, 18670.
145. Pavithra M K S, 2022, Procedure for chromatography using mobile phase with high elution strength to recover tacrolimus from the fermentation broth, Research journal of chemistry and environment, 27, 1, 71.
146. Payal, 2022, Enhanced self cleaning behavior of cloths using nanotechnology, Asian dyer, In Press.
147. Poojitha P, 2022, A review on the application of nanotechnology in food industries, Current research in nutrition and food science, 10, 3, 1.
148. Poojitha P, 2022, Effect of chemical preservatives on storage of thermally processed banana pulp, International journal of food and nutritional sciences, In Press.
149. Poojitha P, Divyadharshini S, Ishwarya K, Sathanya P S, Bhuvana, Poornachandrika, Balakrishnaraja R, Gowrishankar L, 2022, Studies on development of fortified pizza base, International journal of applied engineering research, 17, 5, 438.
150. Poornima A, 2022, Monitoring of network traffic downtime using ip scanner via programmable router, Journal of xidian university, 16, 11, 49.
151. Prabanand S C, 2022, Machine learning based epilepsy detection using eeg data, Indian journal of natural sciences, 13, 73, 47341.
152. Prabhu V, 2022, IOT based monitoring and controlling of environmental parameter for implementing intelligent irrigation system, IEEE xplore, In Press.
153. Prakash S P, 2022, Hybrid frequency domain based feature extraction methods for human face recognition, IEEE explorer, In Press.
154. Prakash S P, 2022, Improved local vector pattern descriptor for face recognition, Smart technologies, communication and robotics, In Press.
155. Prathap M R; Vairavel K S; Kavya G S; Sandhiya S; Sivapriya S, 2022, Intelligent irrigation system with monitoring and control of natural parameter using IOT, 2nd international conference on smart technologies, communication and robotics, In Press.
156. Preethi Thangavel , Senthil Karuppanan , Pachamuthu Muthusamy Poomalai , Ashokan Sakthivel, Geetha Nandagopalan and Stefano Bellucci, 2022, Effect of chelating agents on the structural, optical, and dye-degradation properties of tungsten oxide nanoparticles, Photonics, 9, 11, 1.
157. R Muthu Selvam, M. Pushpavalli, 2022, Android mobile device for smart health surveillance with automated database, Journal of android and ios applications and testing, 7, 3, 41.



158. R. Hariharan, G. Komarasamy and S. Daniel Madan Raja, 2022, Public auditing using identity based cryptosystems on multi-copy data integrity in cloud, *Ictact journal on communication technology*, 13, 3, 2748.
159. R. Karthick, G. Velraj, M. P. Pachamuthu, S. Karthikeyan, 2022, Synthesis, spectroscopic, dft, and molecular docking studies on 1,4-dihydropyridine derivative compounds: a combined experimental and theoretical study, *Journal of molecular modeling*, 5, 1, 1.
160. R. Senthilkumar, A. Bharathi, 2022, Gray-level co-occurrence matrix with oriented fast and rotated brief algorithm for diabetic retinopathy prediction, *Journal of environmental protection and ecology*, 23, 7, 3089.
161. R.Muthu Selvam, M.Pushpavalli, L.Arulmurugan, 2022, IOT based gsm module integrated continual 24 hours throb of the heart monitoring structure, *Indian journal of natural sciences*, 13, 74, 48333.
162. R.Rajiev, S.Saravanan, 2022, An study of heat transfer improvement of single piped heat exchanger using various inserts, *Gradiva review journal*, 8, 10, 211216.
163. R.Rajiev, S.Saravanan, 2022, Fabrication of IOT control automatic drainage cleaning machine, *HTL journal*, 28, 9, 210.
164. R.Siva Subramanian, G. Kumaresan, A.Santosh Karthik, K.C.Sivaganes, V.Suryabalan, A.R.Venkat Guhan, 2022, Analysis of modified shell and tube heat exchanger, *AIP proceedings*, 2527, 1, 30019.
165. Raj Kumar V S, 2022, A hybrid dl with the internet of things to monitor human activities using wearable sensors, *Measurement: sensors (2022)*, 24, 1, 1.
166. Raja Selvaraj, Deepa Prabhu, P. Senthil Kumar, Gayathri Rangasamy, Gokulakrishnan Murugesan, Mouli Rajesh, Louella Concepta Goveas, Thivaharan Varadavenkatesan, Adithya Samanth, R. Balakrishnaraja, Ramesh Vinayagam, 2022, Adsorptive removal of tetracycline from aqueous solutions using magnetic  $Fe_2O_3$  / activated carbon prepared from cynometra ramiflora fruit waste, *Chemosphere*, In Press.
167. Rajasekar L, 2022, Automatic soil quality analyser for enhancing agriculture with IOT, *Indian journal of natural sciences*, In Press.
168. Rajesh Kumar S, 2022, Recycling and sustainability of textile materials, *Asian textile journal*, 31, 10, 30.
169. Raju C, 2022, Lorawan based early flood alert system using coap protocol, *IOP conference series:earth and environmental science*, 1125, 1, 12009.
170. Rangasamy Praveena, Athinarayanan Balasankar, Kanakaraj Aruchamy, Taehwan, Veerababu Poliseti, Subramaniyan Ramasundaram and Kandasamy Anbazhakan, 2022, Structural activity and had inhibition efficiency of pelargonidin and its glucoside—a theoretical approach, *Molecules*, 27, 22, 8016.
171. Ranjitham M, 2022, Structural health monitoring using sensors with application of wavelet analysis, *Materials research proceedings*, In Press.

172. Rasheedha A, Kavya G.S., JAIPriya S., Suresh K.R, 2022, A survey of internet of things on communication technologies, Vidyabharati international interdisciplinary research journal, In Press.
173. Reem Alkanhel, Mohamed Abouhawwash, S. N. Sangeethaa, K. Venkatachalam and Doaa Sami Khafaga, 2022, Wireless network security using load balanced mobile sink technique, Intelligent automation and soft computing, 35, 2, 2135.
174. Rishikesh N, 2022, Closed loop bidirectional buck-boost converter for battery, International journal of engineering technology and management sciences, In Press.
175. Rupashini P R, 2022, Diabetic retinopathy detection using retinal fundus picture and image enhancement using fuzzy clustering, IEEE xplore, In Press.
176. Rupika Nanda, D. Kamal Raj, Ruhul Amin Choudhary, 2022, Comprehensive review on consumers behavior towards sustainable fashion and its relativity in fast fashion, Man made textiles in india, L, 12, 403407.
177. S C Prabanand, Dr G. Sugitha, 2022, Electroencephalogram data analysed through the lens of machine learning to detect signs of epilepsy, IEEE xplore, In Press.
178. S P Prakash, S Tamilselvan, M Abdullah, R Ramesh, 2022, IOT based solid waste management system using smart dustbins, Earth and enviornmental science, 1125, 12, 1.
179. S Sundar, R Vidyalakshmi, R Suresh, N Subalakshmi, T Ganesh and S Jayaprakash, 2022, An effective implementation of a three phase multilevel inverter for electric vehicle, AIP publishing, 2519, 50061, 1.
180. S. Deepankumar and K. L. Senthil Kumar, 2022, Production of oil from e-waste plastics and their effect in ci engine performance with diesel and nano additive, Solid fuel chemistry, 56, 6, 478.
181. S. Deivanayaki, P. Jayamurugan, S. Ashokan, V. Gopala Krishnan, B. Yogeswari, 2022, Growth of non- enzymatic cholesterol biosensor using tio2 decorated graphene oxide with bare gce and ppy-gce, J polymer materials, In Press.
182. S. Durgadevi, U.V. Krishnan, S. Vetrivel, M. Vijay, 2022, Experimental investigation on effects of bendable composites on ductility, Materials research proceedings, In Press.
183. S. J. K. Jagadeesh Kumar , P. Parthasarathi , Mehedi Masud , Jehad F. Al-Amri and Mohamed Abouhawwash, 2022, Butterfly optimized feature selection with fuzzy c-means classifier for thyroid prediction, Intelligent automation & soft computing, 35, 3, 2909.
184. S. R. Sannasi Chakravarthy, N. Bharanidharan, Harikumar Rajaguru, 2022, A systematic review on machine learning algorithms used for forecasting lake-water level fluctuations, Concurrency and computation: practice and experience, In Press.
185. S. Raja , MS. Sivahari Shankar , P. Mathan Kumar , C. Rajaganapathy, 2022, Heat transfer analysis and enhancement in shell and tube heat exchanger using copper oxide nano particles, Materials Today: Proceedings, In Press.
186. S. Sankarananth, P. Sivaraman, 2022, Performance enhancement of multi-port bidirectional dc-dc converter using resilient backpropagation neural network method, Elsevier journal of sustainable computing: informatics and systems, 36, 1, 1.

187. S. Saravanakumar, K. Kalaiselvan, K.B. Prakash, M. Parkunam, S. Niranjana, N. Dharanish, R. Akash, 2022, Mechanical behaviour and microstructure analysis of aluminium 2024 and 5052 using friction stir welding, *Materials today: proceedings*, In Press.
188. S. Saravanakumar, K. Kalaiselvan, M. Ramesh, K.B. Prakash, A. Sundar Rajan, T. Subash Chandru, M.S. Aravindh, 2022, Design and comparison of the strength of propeller shaft for truck made of aa2024, aa7068, and ti-6al-4v using ansys, *Materials today: proceedings*, In Press.
189. S. Srikanth, A. Parthiban, M. Ravikumar and K. Vignesh, 2022, Parameter optimization in laser beam welding for incoloy 825 ni-based alloy and aisi 316l steel, *Journal of ceramic processing research*, 23, 4, 523.
190. S. Sundara murthy, Padhma Muniraj and Amitabh Wahi, 2022, Classification of outdoor natural scenes using discrete wavelet transform and resilient and rbf ann classifiers: a performance analysis, *Indian journal of natural sciences*, 73, 13, 47252.
191. S. Sundaram, V.N. Vijayakumar, V. Balasubramanian, 2022, Electronic and structure conformational analysis (homo-lumo, mep, nbo, elf, lol, aim) of hydrogen bond binary liquid crystal mixture: dft/td-dft approach, *Computational and theoretical chemistry*, 1217, 1, 113920.
192. S. Yaknesh, Mohammed Tharwan, Rajasekaran Saminathan, N. Rajamurugu, K. B. Prakash, Ankit, Manoj Kumar Pasupathi, Atul Sarojwal, and Dawit Tafesse Gebreyohannes, 2022, Mechanical and microstructural investigation on az91b mg alloys with tool tilt variation by friction stir welding, *Advances in materials science and engineering*, 2022/8311413, 1, 1.
193. S.M.D.Mathuravalli, S.Deepa, Venkata Ramana Motupalli, Mekala R, D. Stalin David, 2022, Certain investigation of medical image analysis using object recognition and semantic segmentation, *Journal of pharmaceutical negative results*, 13, 9, 4484.
194. S.Saravanan, R.Rajiev, K.Sunil Kumar, 2022, An experimental investigation of car lifting mechanism using universal object interaction, *Gradiva review journal*, 8, 10, 189-195.
195. Sabari Saradha Sheeba, K. Murugadass, Pongali Sathya Prabu N & M. L. N.MadhuMohan, 2022, Optical, spectral and thermal characterization of nematogens in hydrogen bond liquid crystals, *Russian journal of physical chemistry*, In Press.
196. Sakthishobana K, 2022, Adsorptive removal of tetracycline from aqueous solution using magnetic Fe<sub>2</sub>O<sub>3</sub> activated carbon prepared from cynometra ramiflora fruit waste, *Chemosphere*, In Press.
197. Sangeetha S N, 2022, A study on brain fingerprint technology, *Journal of ubiquitous computing and communication technologies*, 4, 3, 125.
198. Sangeetha S N, 2022, Deep learning for forgery face detection using fuzzy fisher capsule dual graph, *Information technology and control*, 51, 3, 563.
199. Santhiya B, Yamuna S, Gayathri K and Renugadevi S, 2022, Detecting brain tumour by applying gray level spatial dependence matrix (GLCM) and bat algorithm, *Indian journal of natural sciences*, 13, 73, 47318.

200. Saran Kumar Arunachalam, Rajagopal Rekha, 2022, A novel approach for cardiovascular disease prediction using machine learning algorithms, *Concurrency and computation: practice and experience*, 34, 19, 1.
201. Saraswathi C, 2022, Cashless transaction: how this creates a new regime in consumer economic management, *Neuroquantology*, 20, 12, 3859.
202. Saravana G, Jegadeeswari J S, NaveenKumar V, PushpaValli M, 2022, Energy efficiency in wireless sensor networks using advanced leach protocol, *International journal of engineering technology and management sciences*, 6, 6, 74.
203. Saravanan K, 2022, Investigation of factors influencing rise in needle temperature to enhance the production and seam performance–part i, *Journal of natural fibres*, In Press.
204. Sathish S, 2022, Healthcare internet of things(hIOT) data security enhancement using blockchain technology -, *Journal of intelligent & fuzzy systems*, 43, 4, 5063.
205. Sathyakumar N, 2022, Glass fiber reinforced ultra-high strength concrete with silica fume, *Gradevinar*, 74, 10, 849.
206. Selvaraj Jegadheeswaran, Athimoolam Sundaramahalingam, 2022, Experimental investigations of the effect of ultrasonic waves on the thermal performance of nanoparticles embedded phase change material, *International journal of thermophysics*, 44/8, 1, 1.
207. Senthamarai Manogaran, Kannan Kilavan Packiam, Vijayakumar Lakshmi Narayanan, Chadhurthika Krishnamurthy, Devi Vijayarangam and Moni Philip Jacob Kizhakedathil, 2022, Production of lovastatin using liquid cheese whey by *fusarium nectrioides* (mh173849), an endophytic fungi isolated from *euphorbia hirta*, *Journal of pure and applied microbiology*, 16, 4, 2477.
208. Shafqur Rehman · Narayanan Natarajan , Mangottiri Vasudevan, Abdul Baseer Mohammed, Mohammed A. Mohandes, Firoz Khan, Fahad A. Al-Sulaiman, 2022, Performance evaluation of grid-connected photovoltaic system for kuttiady village in kerala, india, *Environmental science and pollution research*, In Press.
209. Shivappriya Sathyamangalam-Natarajan , Arun-Kumar Shanmugam, Jude Hemanth, and Harikumar Rajaguru, 2022, Prediction of cardiac arrhythmia using multi class classifiers by incorporating wavelet transform based features, *Dyna*, 97, 4, 418.
210. Somasundaram K, 2022, Development of energy competent routing protocol with anfis based optimized routing in wireless multi-hop ad hoc networks, *Journal of pharmaceutical negative results*, 13, S09, 5028.
211. Somasundaram Naveena & Ayyasamy Bharathi, 2022, Weighted entropy deep features on hybrid rnn with lstm for glucose level and diabetes prediction, *Computer methods in biomechanics and biomedical engineering*, In Press.
212. Sowmmiya S, 2022, Study on characteristics of air vortex sewing thread and its application, *International research journal of engineering and technology*, 9, 7, 109.
213. Sri Vigna Hema V, Ramesh K, 2022, Augmented security for healthcare data using obfuscation and elliptic curve cryptography algorithm in health cloud environment, *Concurrency and computation-practice & experience*, 34, 26, 1.



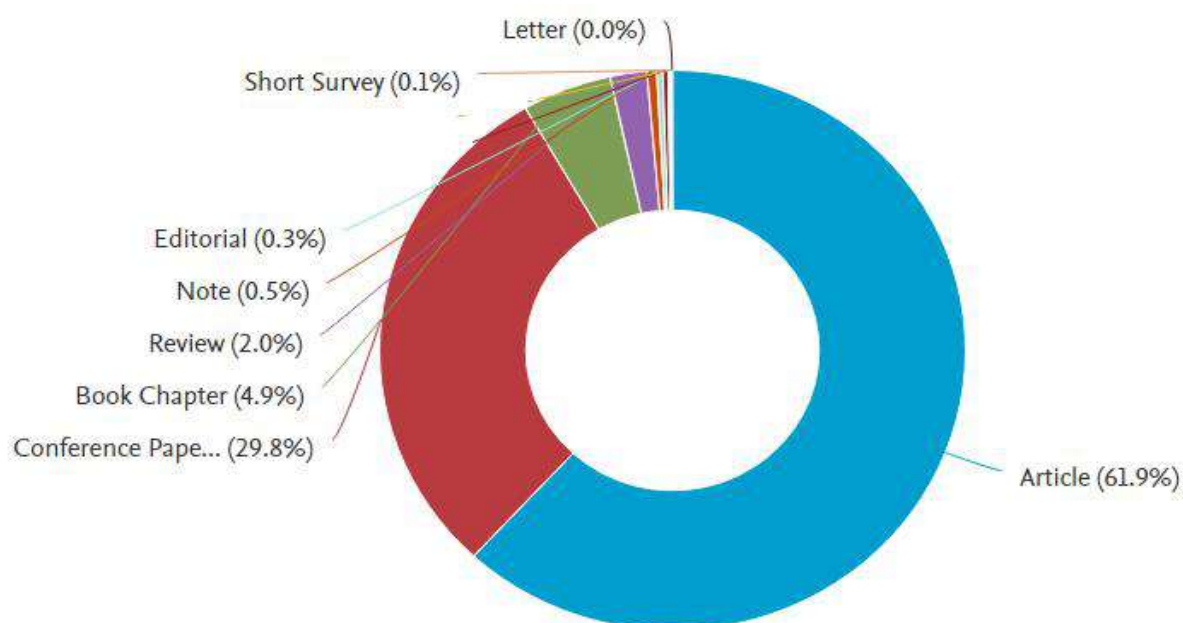
214. Srinivasan M, Akshya Sibi S P, Lavanya U and Nidharshna M, 2022, Home automation using node mcu with power failure detection, Indian journal of natural sciences, 13, 73, 46513.
215. Subramaniyan Chinnasamy, Amarkarthik Arunachalam, 2022, Experimental investigation on direct expansion solar-air source heat pump for water heating application, Renewable energy, 202, 1, 222.
216. Subrata Das & Amirtham Kathiresan, 2022, Environmental and health hazards in cotton spinning industry, Journal of natural fibers, In Press.
217. Subrata Das and R. G. Krishnapriya, 2022, Herbal finishing of nylon fabric with lawsonia inermis, Man made textiles in india, 50, 7, 190.
218. Subrata Das, 2022, Abrasion resistance and tensile behavior of woven bi-voltine silk fabrics, Journal of natural fibers, 19, 8, 2799.
219. Subrata Das, 2022, Application of sustainable textile finishing using natural biomolecules, Journal of natural fibers, 19, 11, 4350.
220. Subrata Das, 2022, Characterisation of muga silk, Asian textile journal, 31, 8, 41.
221. Subrata Das, 2022, Colored and luminescent silk, Journal of natural fibers, 19, 14, 9420.
222. Subrata Das, 2022, Physical and chemical characterization of seaweed fabric for apparel industry, Man made textiles in india, 48, 11, 382.
223. Subrata Das, 2022, Response features of silk warp yarns during weaving, Journal of natural fibers, 19, 3, 6749.
224. Subrata Das, 2022, Uv protection finish on ramie fabric by the application of camellia sinensis, Man made textiles in india, 50, 11, 381.
225. Subrata Das, Arunava Das, Nirmala V, Vasanth R and Bindhu J, 2022, Characterization of rosa indica and its antibacterial activity on textiles, Asian dyer, 19, 3, 56.
226. Subrata Das, Keerthana Shanmugaraja, 2022, Application of artificial neural network in determining the fabric weave pattern, Zastita materijala (journal materials protection), 63, 3, 291.
227. Sudev Dutta, Arunangshu Mukhopadhyay, AK Choudhary, CC Reddy, 2022, Prediction of polyester conductive filter media life on flat and pilot filtration test rigs under flyash aerosol pre-charge, Journal of industrial textiles, 52, 1, 1.
228. Sunil Kumar Prabhakar , Harikumar Rajaguru , Kwangsub So and Dong-Ok Won, 2022, A framework for text classification using evolutionary contiguous convolutional neural network and swarm based deep neural network, Frontiers in computational neuroscience, 16, 1, 1.
229. Sunil Kumar Prabhakar, Young-Gi Ju1, Harikumar Rajaguru and Dong-Ok Won, 2022, Sparse measures with swarm-based pliable hidden markov model and deep learning for eeg classification, Frontiers in computational neuro sciences, 2022, 1, 1.

230. Suseendran S, 2022, A digital twin approach for deepened classification of patients with hepatitis, fibrosis and cirrhosis, Journal of physics: conference series, 2335, 1, 1.
231. T. Kavitha, N. Pandeewari, R. Shobana, V.R. Vinothini, K. Sakthisudhan, A. Jeyam, A. Jasmine Gnana Malar , 2022, Data congestion control framework in wireless sensor network in IOT enabled intelligent transportation system, Measurement: sensors, 24, 1, 1.
232. T. Vasanthi, V. Balasubramanian, S. Balamuralikrishnan, V. N. Vijayakumar, 2022, Influence of methylene blue on optical and thermal properties of dye-doped hydrogen-bonded liquid crystal mixture, Russian journal of physical chemistry, 96, 13, 2921.
233. Tamilselvi S, 2022, Designing of chimeric vaccine against canine distemper virus targeting hemagglutinin protein, Biointerface research in applied chemistry, 13, 4, 1.
234. Thulasimani T, 2022, Smart transport system for passenger comfort using IOT, IEEE xplore, In Press.
235. Umamaheswari Rajaji , K. Yogesh Kumar , Rameshkumar Arumugam, Asma A. Alothman ,ohamed Ouladsmene, Ren-Jei Chung, Ting-Y, 2022, Sonochemical construction of hierarchical strontium doped lanthanum trisulfide electrocatalyst: an efficient electrode for highly sensitive detection of ecological pollutant in food and water, Ultrasonics sonochemistry, 92/106251, 1, 1.
236. V R Vinothini, P Maheswari Naik, A Shobana, 2022, Split domination in various special graphs, Telematique, 21, 1, 2111.
237. V. Jayanthi , B. Soundara , S.M. Sanjaikumar , M. Arun Siddharth , S. Durga Shree , S. Pooja Ragavi, 2022, Influencing parameters on experimental and theoretical analysis of geocell reinforced soil, Materials today proceedings, 66, 3, 1148.
238. V. Praveen, P. Keerthika, G. Sivapriya, A. Sarankumar, Boddu Bhasker, 2022, Vehicle routing optimization problem :a study on capacitated vehicle routing problem, Materials today: proceedings, 64, 1, 670.
239. V.Gnanaprakash, Sajan P.Philip, N.Kanthimathi and N.Saranya, 2022, Fabric defect detection using firefly based particle swarm optimization, Indian journal of natural sciences, 13, 73, 47282.
240. V.Sri Vigna Hema, K.Ramesh, M.Karthiga, L.Priya, K.Chandraprabha, 2022, A comparative study on secure data sharing in cloud environment, Indian journal of natural sciences, 13, 74, 48615.
241. Vaneeswari N, 2022, Certain properties of natural fiber reinforced composites, Man made textiles in india, 9, 4, 273.
242. Vasudevan M, 2022, Comparison of analytic hierarchy process (ahp) and fuzzy analytic hierarchy process (f-ahp) for the sustainability assessment of a water supply project, Journal of the institution of engineers (india): series, In Press.
243. Vasudevan M, 2022, Developmental strategies for a water quality assessment model with limited datasets – a case study from river bhavani, india, IOP conference series: earth and environmental science, 1032, 12018, 1.

244. V. Balasubramanian, T. Vasanthi, S. Balamuralikrishnan, and V. N. Vijayakumar, 2022, Influence of dye-doped hydrogen-bonded liquid crystal mixture, Russian journal of physical chemistry, 96, 13, 113.
245. Vasudevan M, 2022, Nitrate transport in a fracture-skin-matrix system under non-isothermal conditions, Environmental science and pollution research, In Press.
246. Venkatesan R, 2022, DeepSentimodels: a novel hybrid deep learning model for an effective analysis of ensembled sentiments in e-commerce and s-commerce platforms, Cybernetics and systems an international journal, 53, 8, 1.
247. Vijayakumar V N, 2022, Photonic applications of linear double hydrogen bond ferroelectric liquid crystal mixture: optical modulators, Brazilian journal of physics, 53, 2, 1.
248. Vinothini V R, 2022, An optimized mammogram image classification using feed forward neural networks, Neuro quantology an interdisciplinary journal of neuroscience and quantum physics, 20, 19, 494.
249. Yamuna S, Santhiya B, Gayathri K and Renuga Devi S, 2022, A novel analysis on surf and orb techniques for hand dorsal vein recognition, Indian journal of natural sciences, 13, 73, 47225.
250. Sakthishobana K, 2022, Microalgal biofuel production: potential challenges and prospective, Fuel, In Press.
251. Gowrishankar L, 2022, A comprehensive review on fermented foods, Gradiva review journal, 9, 1, 330.
252. Vinothkumar N, 2022, Virtual machine migration for infrastructure service in cloud network, Second international conference on smart technologies communication and robotics, In Press.
253. Karthiga M, 2022, UAV and vehicular communication with hardware impairments in multiple RIS system, Second international conference on smart technologies communication and robotics, In Press.
254. Daniel Madan Raja S, 2022, Design of an efficient decision support system using evolutionary deep forward network model, Journal of intelligent & fuzzy systems, In Press.
255. Dheepanchakkavarthi A, 2022, Design and development of voice and keypad controlled smart wheelchair, IEEE explore - 2022 smart technologies, communication & robotics, In Press.
256. Sri Vigna Hema V, 2022, UAV and vehicular communication with hardware impairments in multiple ris system, IEEE explore - 2022 smart technologies, communication & robotics, In Press.
257. Ajin R Nair, 2022, Estimation and compensation of total harmonic distortion in swipt, IEEE explore, In Press.
258. Chinnadurrai C L, 2022, Electricity price forecasting using multilayer perception optimized by particle swarm optimization, Second international conference on smart technologies communication and robotics, In Press.

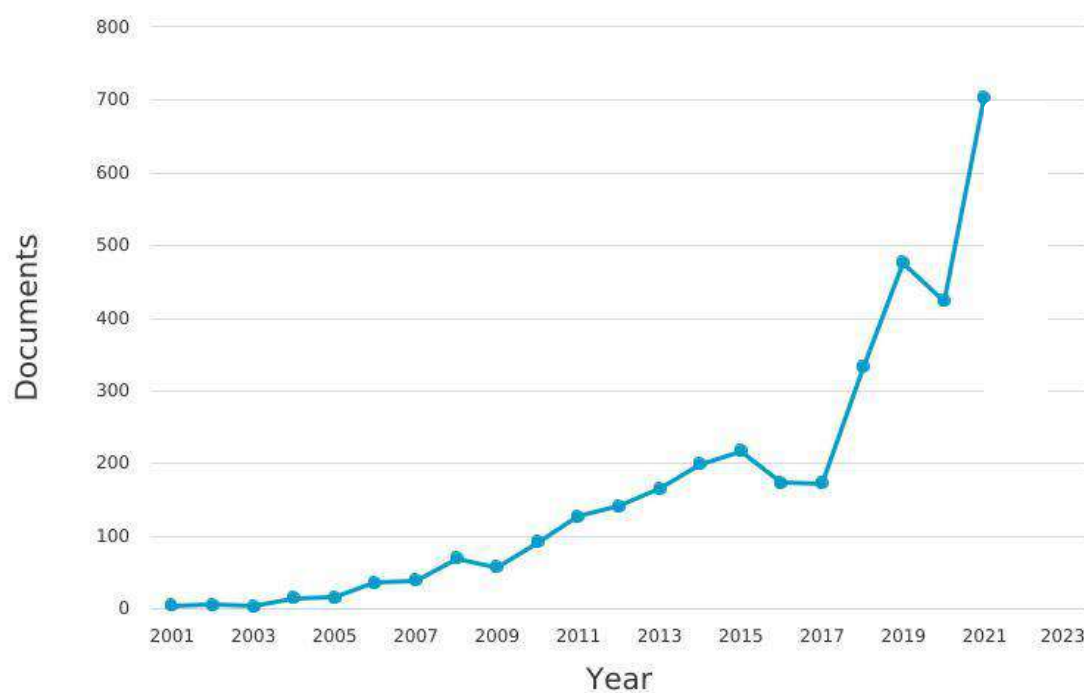
259. Sivaraman P, 2022, Bio mass gasification using coconut shell for small electricity generation, IEEE explore, In Press.
260. Parimala M, 2022, Regular beta generalized closed sets, Far east journal of mathematical sciences, 140, 1, 47.
261. Gowrishankar L, 2022, A comprehensive review on fermented foods, Gradiva review journal, 9, 1, 330.

## Publication through various avenues



## Publication journey

### Documents by year



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## Funding proposals - Completed (Total – 3)

Period: 01.07.2022 – 31.12.2022

1. Title of completed funding: Robotics and automation in industry 4.0

Grantee: Dr. Sivakumar K

Funding agency: AICTE – ATAL Academy

Amount: Rs. 3,00,000/-

Duration: 2 weeks

Details of completed funding:

The sponsored amount was utilized for organizing the event for faculty of engineering and sciences and industry person who are interested in learning robotics and intelligent systems. This helped the faculty members and research scholars from various institutions for their academic and research purpose as follows.

1. Industrial robots: expected skills
2. Robot kinematics and design
3. Fuzzy logic control of inverse kinematics of industrial robots
4. Sensors in robotics
5. Teaching learning psychology
6. Image processing in robotics
7. Demystifying industrial robots and its applications
8. Servo systems, drives and controllers – a must need components of an industrial robots



2. Title of completed funding: Development of innovative dual axis axial flux permanent magnet generator with vertical axis wind turbine and solar PV system for self-reliant telecom towers at remote locations

Grantee: Dr. Bharanikumar R

Funding agency: AICTE – Research Promotion Scheme (RPS)

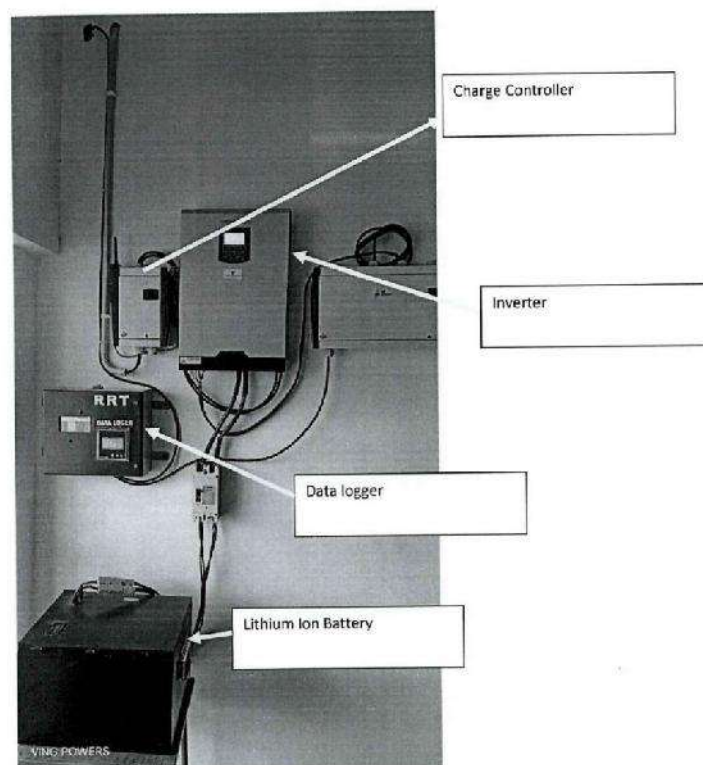
Amount: Rs. 12,05,176/-

Duration: 3 years

Details of completed funding:

The dual axis axial flux permanent magnet generator supported the remote locations through the following aspects.

- Reduction of the diesel consumption of telephone tower
- Development of vertical axis wind turbine and novel topology of dual axis, axial flux PMG capable to generate power at lower wind speed
- Fabrication of lithium ion battery with lower charging time and higher discharging time with reduced temperature



3. Title of completed funding: Virtual popular lecture series

Grantee: Dr. Premalatha K


Funding agency: DBT - Conference, Travel, Exhibition and Popular Lectures (CTEP)

Amount: Rs. 8,000/-


Duration: 2 days

Details of completed funding:

- Popular lecture series on the topics entitled machine learning and deep learning was organized for the benefit of students and faculty members
- The topics of interest include
  - Classification
  - Next generation sequence analysis
    - Using machine learning methods
  - Microarray gene expression data
  - Metagenomics and human micro-biome
    - Using deep learning methods



**BANNARI AMMAN INSTITUTE OF TECHNOLOGY**  
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Recording

## Evaluation Method

- **Validation set:** the available data is divided into three subsets,
  - a training set,
  - a validation set and
  - a test set.
- A validation set is used frequently for estimating parameters in learning algorithms.
- In such cases, the values that give the best accuracy on the validation set are used as the final parameter values.
- Cross-validation can be used for parameter estimating as well.

Participants (150)  
Find a participant  
WB Webinar BIT (Host, me) K Premalatha 191CS102 - ABDUL ADHIL K 191CS150 - DEVAKORPRIYADHAR... 191CS210 - NAHAKRISHNA MO... 191CS217 191CS234 Parthasarathy M 191CS250\_PRAVEEN S T 191CS259 - PREMITHKUMAR S R 191CS278 191CS316 - SUTHIR S 191CS331 - VINODHARSHINI C S 201CS116 - Anbu Thirum

Unmute Mute All

## **Funding proposals - Sanctioned (Total – 5)**

**Period: 01.07.2022 – 31.12.2022**

1. Title of sanctioned funding: Development of self-driven vehicle

Grantee: Dr. Rajasekar L

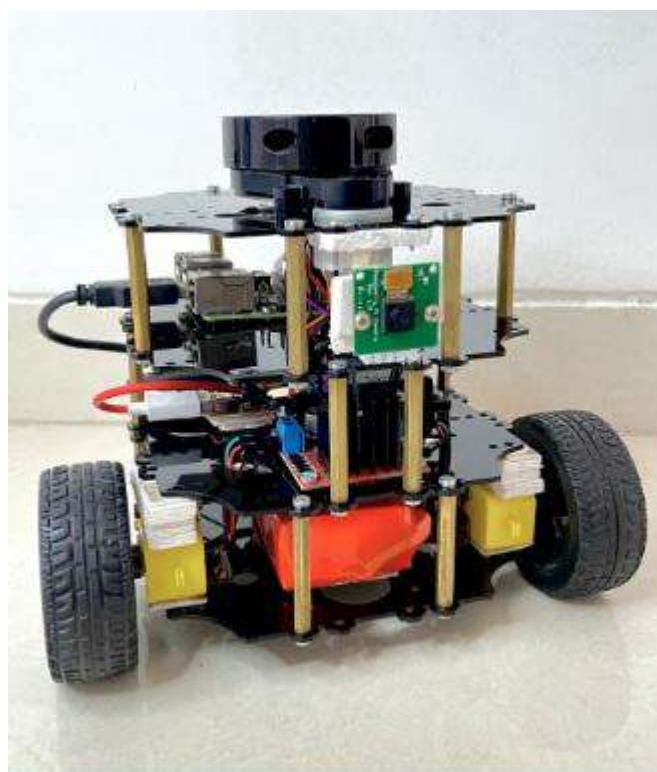
Funding agency: Institution of Engineering and Technology (IET)

Amount: Rs. 59,275/-

Duration: 1 year

Scope of sanctioned funding:

- The primary focus of technology nowadays is to moderate the human intervention in day-to-day tasks. Machine learning, artificial intelligence, and computer vision being the big players in doing so. We have reached a time wherein we can automate our menial tasks like driving.



2. Title of sanctioned funding: Profiling and development of exosome-based novel anti-arthritic flavonoid formulation

Grantee: Dr. Dinesh Kumar L

Funding agency: SERB

Amount: Rs. 20,50,000/-

Duration: 3 years

Scope of sanctioned funding:

- Profiling and development of exosome-based novel anti-arthritic flavonoid formulation to mitigate the HIF regulated angiogenic-pannus growth in rheumatoid arthritis
- The bioactive flavonoids, which have been identified and scientifically confirmed for their disease suppressing effects in ra will be collected from standard research literature/ databases and pharmacokinetic properties will be analysed along with the exosomes retrieved from fibroblast-like synoviocytes.
- Besides, the association of ra-angiogenesis (ra-ag) regulatory targets with other pathway mediators and bioactive small molecules will be assessed using network pharmacology (string/stitch).
- Possible mechanism of the flavonoids and their predicted ra-ag targets will further be assessed with interaction and stability analysis by molecular docking and dynamics studies.
- Finally, the modulatory efficiency of the compound in the ra-ag pathway will be studied by in vitro cell culture (mh7a-fls cell line).
- The effective flavonoid compounds will then be formulated as a drug/ supplement to withhold the progression and severity of ra.



3. Title of sanctioned funding: Human-elephant-conflict mitigation through design and installation of SMS operated electronic elephant signage

Grantee: Dr Sanjoy Deb

Funding agency: Elephant mangers association

Amount: Rs. 1,16,000/-

Duration: 2 years

Scope of sanctioned funding:

- This is an initiative for human-elephant-conflict mitigation through design and installation of SMS operated electronic elephant signage
- Invasive species like prosopis and wattle needs to be removed rigorous monitoring and ecological restoration should be done to prevent reinvasion practiced in Tamilnadu and Karnataka among other states
- Elephant proof trenches (epts useful around large forest blocks. Separated by walls (septa) to prevent water flow
- Solar electric fences require lower investment than Karnataka and Tamilnadu.
- Strong barriers are using steel channels, used rails distances.
- Involvement of the local community or the stakeholder is most important maintenance of barriers.



4. Title of sanctioned funding: IEEE sponsored first international conference on "smart technologies, communication and robotics - (STCR-2021)

Grantee: Dr. Harikumar R & Dr. Poongodi C

Funding agency: AICTE

Amount: Rs. 49,300/-

Duration: 1 week

Scope of sanctioned funding:

- STCR 2022 will provide a forum for researchers and engineers in both academia and industry to exchange the latest innovations and research advancements in smart technologies, communication and robotics.
- This virtual conference will provide a wonderful forum to refresh knowledge and explore the innovations in smart technologies, communication and robotics.
- This conference strives to offer plenty of networking opportunities and interact with leading scientists and researchers, friends and colleagues.
- The conference includes technical sessions, tutorials and technology and business panels.
- The primary goal of the conference is to promote research and developmental activities in smart technologies, communication and robotics.
- The main objective is to provide an opportunity to discuss about the technologies involved in the implementation of social relevant applications such as security aspects regarding the smartcity, IOT enabled wireless communication, autonomous vehicles and automations in trust areas.



5. Title of sanctioned funding: Upgradation of the expertise and capabilities of the faculty members of the degree level institutions in the country

Grantee: Dr. Jegadheeswaran S

Funding agency: AICTE - QIP

Amount: Rs. 1,65,000/-

Period: 1 year

Scope of sanctioned funding:

- The QIP funding allows an indian-listed company to raise capital from domestic markets without the need to submit any pre-issue filings to market regulators.
- This also supports upgradation of the expertise and capabilities of the faculty members of the degree level institutions in the country.

The screenshot displays the AICTE - Quality Improvement Programme (QIP) Portal. The header includes the AICTE logo and the text 'अखिल भारतीय तकनीकी शिक्षा परिषद्' and 'All India Council For Technical Education'. The main title is 'AICTE - Quality Improvement Programme (QIP) Portal'. There is a 'LOGOUT' button. Below the header, there is a navigation bar with links: 'Institute Details', 'Department Creation and Seat Allocation', 'Admission', 'Student', 'Attendance', 'Payment Details', 'Stop Scholarship/Left The Institute', and 'Coordinator Details'. A 'Change Password' link is also present. The main content area shows a welcome message: 'WELCOME BANNARI AMMAN INSTITUTE OF TECHNOLOGY, ERODE - QIP-ENGINEERING !'. Below this is a section titled 'REGISTERED STUDENT LIST'. There are buttons for 'Add Student' and 'Export Seats'. A table lists the registered students with columns: SR. NO., INSTITUTE UNIQUE ID, INSTITUTE NAME, STUDENT UNIQUE ID, COURSE, BATCH YEAR, DEPARTMENT NAME, DEPARTMENT UNIQUE ID, STUDENT NAME, STUDENT EMAIL, and DATE OF ADMISSION. The table contains one row of data for a student named Gowri Shankar M. The footer of the table shows 'Items per page: 10' and '1 - 1 of 1'.

SR. NO.	INSTITUTE UNIQUE ID	INSTITUTE NAME	STUDENT UNIQUE ID	COURSE	BATCH YEAR	DEPARTMENT NAME	DEPARTMENT UNIQUE ID	STUDENT NAME	STUDENT EMAIL	DATE OF ADMISSION
1	QIP0045	Bannari Amman Institute of Technology, Erode	FP2003143	Ph.D.	2020	Electronics And Communications Engineering	000003	Gowri Shankar M	mehankar065@gmail.com	Nov 1, 2020

## Funding proposals - Submitted (Total amount - Rs.24,11,94,316/-)

S. No.	Name of the project	Faculty name	Amount (in Rs.)
1.	AI based smart white cane for visually impaired	Daniel Madan Raja S	18,00,000
2.	An initiative for human-elephant-conflict mitigation through design and installation of SMS operated electronic elephant signage	Sanjoy Deb	1,16,000
3.	An international conference on artificial intelligence and blockchain	Bazila Banu A	1,64,000
4.	Application of machine learning for predictive diagnostics	Gomathi R	7,00,00,000
5.	Climate change assessing and developing impacts, adaptation and mitigation strategies in tamil nadu	Karthiga Shenbagam N	2,50,00,000
6.	Design and development of 10kw hybrid inverter for indian micro grid	Sivaraman P	80,96,000
7.	Design and development of high power density fast charging converter for solar PV systems	Srinivasan M	89,20,000
8.	Design and development of novel solar desalination system for indigenous tribal communities	Jegadheeswaran S	31,86,000
9.	Design and development of proton exchange membrane	Bharathiraja M	68,60,642
10.	Design and field installation of multiple roadkill prevention system units under a large scale wildlife safety initiative	Sanjoy Deb	4,00,000
11.	Design and field trial of a mini portable hydro energy harvester for small gadgets	Sanjoy Deb	1,20,000
12.	Design of gui based software for breast cancer detection and classification	Sannasi Chakravarthy S R	19,42,095
13.	Design, development and field trial of low cost integrated light and cooking system to reduce forest-wood dependency and improve life quality in tribal area	Sanjoy Deb	1,10,000
14.	Design, development and field trial of low cost integrated light and cooking system to reduce forest-wood dependency and improve life quality in tribal area	Saravana Kumar R	12,88,000
15.	Develop an online inspection system for roll surface in steel mills	Gomathi R	4,70,000

<b>S. No.</b>	<b>Name of the project</b>	<b>Faculty name</b>	<b>Amount (in Rs.)</b>
16.	Development and evaluation of comprehensive human mathematical model towards non-invasive diagnosis techniques	Hemalatha K	4,71,000
17.	Development and evaluation of comprehensive human mathematical model towards non-invasive diagnosis techniques	Hemalatha K	28,71,360
18.	Development and implications for greater adoption of highefficiency motors and drives to combat climate change in pumped storage hydropower plant	Rajalashmi K	25,60,300
19.	Development of scientific protocols for bulk storage of millets	Chelladurai V	89,00,000
20.	E-waste management through computer vision web cloud based application	Gopalakrishnan B	25,00,000
21.	Effective utilization of steeped milk from fermented millets: syneresis and chemical characterization	Pavithra Mks	47,95,000
22.	Efficient crop cultivation and production monitoring system using internet of things for sustainable development	Venkateshkumar U	43,60,000
23.	Enhancing the economy of schedule tribe at kundri hills, sathyamangalam, erode district through sustainable methods	Praveena R	10,56,200
24.	Experimental investigation for detection and classification of welding defects using advanced deep learning techniques	Pravin M C	21,45,000
25.	Fist- project	Kannan K P	2,69,30,000
26.	Fortification of staple foods with guggul	Dinesh Kumar L	10,00,000
27.	Hands on training on "photonic devices and dft calculations	Vijayakumar V N	7,61,000
28.	Health care	Rajalashmi K	10,000
29.	Highly sensitive printable nanostructure conducting polymer wireless sensor for detecting food spoilage	Vivekanandan J	27,05,885
30.	Innovative trends in engineering and sciences	Raghavendra Prabhu S	1,48,000



<b>S. No.</b>	<b>Name of the project</b>	<b>Faculty name</b>	<b>Amount (in Rs.)</b>
31.	Low molecular polymer coated magnetic nanoparticles for rapid isolation of proteins from the solution	Abdul Azeez N	10,00,000
32.	Machine learning theory and algorithms	Bharathi A	18,00,000
33.	Multi criteria decision making algorithms in terms of fractional orthotriple fuzzy soft topological spaces and its environments	Parimala M	21,72,792
34.	Ohmic- assisted extraction of betanin from beetroot	Poojitha P	10,00,000
35.	PCB design and prototyping for product development	Sampoornam K P	53,14,449
36.	Reinforcement learning	Sangeethaa S N	20,05,000
37.	Renewable energy based electric vehicle charging stations in the distribution network	Chinnadurrai C L	1,00,000
38.	Research & technology development for blending of agro-residues with coal in thermal power plants	Ravi Kumar M	1,07,45,000
39.	Research excellence on mixed reality with artificial intelligence based experiential learning on PCB subjects and self defense for the learning disabled children	Premalatha K	29,99,200
40.	Revitalizing earthen building materials and sustainable practices for mainstream construction	Jayaraman A	29,70,000
41.	Second international conference on smart technologies, communication and robotics	Deepa D	1,00,000
42.	Smart agriculture using AI & IOT	Pushpavalli M	10,000
43.	Uplifting and empowering the scheduled caste through fostering economic growth, social inclusion, and sustainability in savandapur village, erode district, tamil nadu	Premalatha K	2,01,91,393
44.	Virtual tourism using drone photogrammetry	Pachamuthu P	11,00,000

## Student Publications (Total – 75)

S. No.	Student Name	Article Title	Journal Name
1.	Aarthi K V	Real time speech emotion recognition using machine learning	International journal of engineering technology and management sciences
2.	Abinaya G	Android application for students management system	International journal of engineering technology and management sciences
3.	Aishwaryalakshmi B	Market basket analysis for supermarket	International journal of management technology and engineering
4.	Aiswarya S	Crop weed prediction and smart crop yielding	International journal of recent advances in multidisciplinary topics
5.	Ashwin A	Android based quiz application	International research journal for engineering & technology
6.	Badmanaban M	Antimicrobial studies on cellulosic fibre	International journal of recent advances in multidisciplinary topics
7.	Balaji A	Recent development in sustainable chemical processing of textiles (environment textile effluent)	International journal of recent advances in multidisciplinary topics
8.	Boopathi Raaj R	Automated infusion drug warmer system	International journal of scientific research in science, engineering and technology
9.	Brindha B	Pharmaceuticals removal by synergistic adsorption and s-scheme photocatalysis using nano-ceo -coupled fe o on a ctab matrix and investigation of the nanocomposite's antibacterial and antibiofilm activities: intrinsic degradation mechanism	New journal of chemistry
10.	Brindha R	Jarvis: artificial intelligence - based voice assistant	International journal of engineering technology and management sciences
11.	Darsani S	Study of ergonomics in sewing section	International journal of recent advances in multidisciplinary topics
12.	Deenadhayalan P	Heritage of India (Group of monuments at mahabalipuram)	IJETRM

S. No.	Student Name	Article Title	Journal Name
13.	Deepika S	Brain fingerprinting technology	Journal of ubiquitous computing and communication technologies
14.	Deepitha S	Live augmented reality across the campus	International journal of advance research and innovative ideas in education
15.	Deepthi M	Search engine through google api	International research journal of engineering and technology
16.	Dev Ananth S	Blockchain based security prevention framework for healthcare 4.0 using hyper ledger fabric	Gradiva review journal
17.	Dhanush H	Ai-based hearing aid translator using mobile application	International journal of creative research thoughts
18.	Dhyaanesh S	Artificial intelligence based application for personalized medicine	International journal of engineering technology and management studies
19.	Dinesh Kumar E	Natural fibre reinforced composite	International journal of recent advances in multidisciplinary topics
20.	Gokulraju S	A comprehensive survey on different routing protocols and challenges in underwater acoustic sensor networks	Recent advances in metrology
21.	Hariharan S	A deeper look into the process of developing - safe box an automated sterilization chamber	IEEE xplore
22.	Harikumar B	Hierarchical construction of zro2/cacr2o4/bioio3 ternary photocatalyst: photodegradation of antibIOTics, degradation pathway, toxicity assessment, and genotoxicity studies hierarchical construction of zro2/cacr2o4/bioio3 ternary photocatalyst: photodegradation of antibIOTics, degradation pathway, toxicity assessment, and genotoxicity studies	Chemical engineering journal
23.	Indrajith P	A study on evaluation of effectiveness of e-hrm practices in manufacturing industry	International journal of engineering technology and management science

S. No.	Student Name	Article Title	Journal Name
24.	Janasruthi S U	Prediction of malarial infection using deep learning	International journal of advance research and innovative ideas in education
25.	Jaya Surya J	Handwritten mathematical expression recognizer	IJARIE
26.	Jeeva Bharathi K	Development of fire detection using IOT and computer vision	A peer reviewed referred journal
27.	Kavilekha C	IOT and AI based smart home gardening	IOT and AI based smart home gardening
28.	Kavinkumar V S	Preparation of soap using a steam extraction process from leaves of azadirachta indica, ocimum basilicum, hibiscus-rosa-sinensis flowers, acalypha indica, and aloe barbadensis leaflets	IOP conference series: earth and environmental science
29.	Keerthana S	Application of artificial neural network in determining the fabric weave pattern	Zastita materijala
30.	Keshav Shanmukhanathan E	Metaverse-the future of virtual world	International journal of engineering technology and management studies
31.	Kokilavani S	Efficient photocatalytic degradation of methyl orange and malachite green by ag3po4 decorated biobr nanoflower under visible light: performance evaluation, mechanism insights and toxicology of the by-products	Journal of alloys and compounds
32.	Kowsika B	Contemporization of chola dynasty for current fashion	International journal of engineering technology research & management
33.	Krishna Raj R	Ocr based marksheet digitization	International journal of innovative research in engineering
34.	Logeswar S T	Coir based composite for various application	International journal of recent advances in multidisciplinary topics
35.	Madavaraj B	Automatic question generation	IJISRT

S. No.	Student Name	Article Title	Journal Name
36.	Mahibalan K	Real time smart attendance management system	International journal of innovative research in engineering
37.	Mithulkiruthik K S	IOT-based battery management system in electric vehicles	International journal of engineering technology and management sciences
38.	Muthu Selvam R	IOT based gsm modular integrated continual 24 hours throb of the heart monitoring structure	Indian journal of natural science
39.	Nafisa Mukhtar M	Analysis of covid vaccines and their social impacts using machine learning techniques	Gradiva review journal
40.	Nidharshan R	Picture comprehension with neural networks	Indian journal of natural sciences
41.	Nithish Kumar S	Extraction of bamboo fibers by chemical techniques	International journal of recent advances in multidisciplinary topics
42.	Nivila A	Design of chatbot using deeplearning	IRJET
43.	Prakash K	Design evolution from okinawa	IJETRM
44.	Prasanth T	Design and simulation of standalone pv system using pv syst	IJONS
45.	Praveensri T	AI based intelligent data extraction engine	Journal of xidian university
46.	Priyanka PI	Smart saline level monitoring system using liquid level switch contactless sensor, nodemcu and mqtt-s	Smart saline level monitoring system using liquid level switch contactless sensor, nodemcu and mqtt-s
47.	Raaja Rajeshwari M	Enhanced photo-fenton assisted photocatalytic degradation of atenolol using a novel rgo embedded double z-scheme nano-heterojunction: mechanism, kinetics and toxicity studies	Journal of industrial and engineering chemistry
48.	Raaja Rajeshwari M	Novel znfe <sub>2</sub> o <sub>4</sub> decorated on zno nanorod: synergistic photocatalytic degradation of tetracycline,	Journal of environmental chemical engineering



S. No.	Student Name	Article Title	Journal Name
		kinetics, degradation pathway and antifungal activity	
49.	Renuga Devi S	Sovergnity of human resource management on organization effectiveness and development	International journal of engineering technology and management sciences
50.	Sangavi S	Image colorization using deep transfer learning	International journal of current science
51.	Sangeetha K S	Protfolio of womens party wear	IJETRM
52.	Saran Kumaran T	A review on the application of nanotechnology in food industries	Current research in nutrition and food science
53.	Sharmila S	Colored cocoon silk	Journal of natural fibres
54.	Sivaranjani P R	Recent development in mos2-based nano-photocatalyst for the degradation of pharmaceutically active compounds	Journal of cleaner production
55.	Sree Prakash A S	Implementation of ie activites in small scale industries	International journal of recent advances in multidisciplinary topics
56.	Srimathi K	Implementation of banjara art in contemporary casual wear	IJETRM
57.	Srinithi Varshini P	Business casuals inspired from the novels ponniyin selvan and udayar	International journal of engineering technology research and management
58.	Subhiksha V	A prominent dual heterojunction framed cuwo4/bi2wo6/mns ternary ncs for para-chlorophenol degradation, cr(vi) reduction & toxicity studies	Chemosphere
59.	Subhiksha V	Double z-scheme znco2o4/mno2/fes2 photocatalyst with enhanced photodegradation of organic compound: insights into mechanisms, kinetics, pathway and toxicity studies	Chemosphere

S. No.	Student Name	Article Title	Journal Name
60.	Subhiksha V	In situ construction of znfe <sub>2</sub> o <sub>4</sub> nanospheres on coo nanosheets for durable photodegradation of organics: kinetics and mechanistic insights	New journal of chemistry
61.	Surya Prakash S	A hypothesis for the green synthesis of cerium oxide nanoparticles for management of alzheimer disease	Journal of xi'an shiyu university
62.	Swedha M	Green synthesis of two-electron centre based zno/nico <sub>2</sub> s <sub>4</sub> qds-ovs using punica granatum fruit peel extract for an exceptional visible light photocatalytic degradation of doxycycline and ciprofloxacin	Chemosphere
63.	Swedha M	Intimate coupling of 3d mnfe <sub>2</sub> o <sub>4</sub> cubes on 1d zno nanorods for sustainable photocatalysis under visible light: computational analysis of reactive sites and degradation pathway	Journal of the taiwan institute of chemical engineers
64.	Swetha S	Environmental friendly nanostar cds coupled zns on bipolymer matrix unravelling defects rich nanoplatfrom for ultrahigh white light active direct s-scheme photodegradation of organic pollutants	Journal of alloys and compounds
65.	Tarun Kumar M	Critical healthcare database management using blockchain technology	International journal for research trends and innovation
66.	Tharani G	Gym posture recognition and feedback generation using mediapipe and opencv	International journal of advance research and innovative ideas in education
67.	Tharun S	Data administration using android api	IAR journal of engineering and technology
68.	Tharun V	Sentiment analysis from text feedback using cv & tf-idf	International journal of innovative research in engineering
69.	Thirumoorthi D	Development of coir based composite application	International journal of recent advances in multidisciplinary topics

<b>S. No.</b>	<b>Student Name</b>	<b>Article Title</b>	<b>Journal Name</b>
70.	Varshani S	A study on natural materials for warp yarn sizing	International journal of recent advances in multidisciplinary topics
71.	Vinothkumar G	Ergonomics in sewing section	International journal of recent advances in multidisciplinary topics
72.	Vishnu P	Reuse of coarse aggregate as recycled aggregate in concrete	Sustainable materials and smart practices
73.	Vissnu Karthik A M	Infant cry detection and analysis using MATLAB	Image processing and artificial intelligence
74.	Yashwanthkumar R	Smart pesticide dosing based irrigation system	Journal of IOT security and smart technologies
75.	Aarathi K V	Real time speech emotion recognition using machine learning	International journal of engineering technology and management sciences

## Consultancy Activities (Total Amount – Rs.1,89,677/-)

S. No.	Faculty name	Department	Name of the Industry / Organization	Type of consultancy	Amount (in Rs.)
1.	Bharathiraja M	Automobile Engineering	K S Rangasamy College of Technology	Labview training	29,500
2.	Durgadevi S	Civil Engineering	ARD constructions	Water quality test	1,652
3.	Jayaraman A	Civil Engineering	Viswas royal avenue	Cube test	1,416
4.	Jayaraman A	Civil Engineering	SSK construction Bangalore	Structural design	9,000
5.	Jeevanantham V	Civil Engineering	Geo touch engineering, Chennai	Design of contiguous piles for kauvery hospital , Bengaluru	10,000
6.	Loganayagan S	Civil Engineering	Assistant engineer, Ooty	Concrete mix design	11,800
7.	Manjunath N V	Civil Engineering	Geo touch engineering	Contiguous pile design for underground stp at kauvery hospital	8,474
8.	Pongali Sathya Prabu N	Physics	Liquid crystal research laboratory	FTIR analysis	354
9.	Preetha V	Civil Engineering	Anish infrastructure pvt ltd	Material testing	600
10.	Preetha V	Civil Engineering	Kumaran builders	Brick testing	1,200
11.	Preetha V	Civil Engineering	Raviraj hi tech concrete blocks	Material testing	1,000
12.	Preetha V	Civil Engineering	Anish infrastructure pvt ltd	Material testing	600
13.	Preetha V	Civil Engineering	Anish infrastructure pvt ltd	Material testing	600
14.	Preetha V	Civil Engineering	Lakshmi construction	Material testing-cube	600

S. No.	Faculty name	Department	Name of the Industry / Organization	Type of consultancy	Amount (in Rs.)
15.	Preetha V	Civil Engineering	Varun building materials	M sand testing	2,000
16.	Preetha V	Civil Engineering	Anish infrastructures pvt ltd	Material testing	600
17.	Preetha V	Civil Engineering	Jaisri yogalakshmi hollow blocks	Hollow block testing	1,000
18.	Rajendran M	Civil Engineering	Punjai puliampatti municipality	Rain water harvesting in punjai puliampatti weekly market area	24,100
19.	Rajendran M	Civil Engineering	Punjai puliampatti municipality	Proposed water pipe line ls survey using leica total station ls 11	11,800
20.	Ramkumar R	Electronics and Communication Engineering	Hasanur forest division, sathyamangalam tiger reserve	High voltage personal safety stick	49,560
21.	Ramya M	Food Technology	Cavin international pvt. Ltd.	Optimization of process parameter of pet foods	2,065
22.	Sanjoy Deb	Electronics and Communication Engineering	Parry agro industries	Acoustic safety system	3,776
23.	Vijayakumar V	Chemistry	KSRCT	ATR-FTIR	1,180
24.	Vijayakumar V N	Physics	PKR arts college	Optical and thermal characterization of HBLC complex	5,000
25.	Vijayakumar V N	Physics	PSG college of engineering and technology	Thermal characterization of benzene compounds	5,900
26.	Vijayakumar V N	Physics	PSG college of engineering and technology	Sample characterization - consultancy	5,900



## Patents (Filed - 131; Published - 41; Granted - 2)

S. No.	Patent title	Name of the faculty	Department	Patent status
1	3D based tera hertz laser cctv monitoring system	Reena Catherine J	Electrical and Electronics Engineering	Filed
2	A compact multipurpose 3D mouse	Shoukath Ali K	Electronics and Communication Engineering	Filed
3	A device for detection of epilepsy risks through a two stage fuzzy soft decision tree classifiers from eeg signals	Harikumar R	Electronics and Communication Engineering	Filed
4	A device to arrest tap water leakage	Dhinesh S K	Mechatronics	Filed
5	A five way convertible ornamental accessory	Saranya D V	Fashion Technology	Filed
6	A method to boost the visibility of the lane using augmented reality	Maheswari K T	Electrical and Electronics Engineering	Filed
7	A nano turbine - a power source for pacemaker	Sathishkumar S	Electrical and Electronics Engineering	Filed
8	A portable IOT based smart hair band for women safety	Leeban Moses M	Electronics and Communication Engineering	Filed
9	A procedure to classify phase transition temperatures in thermotropic liquid crystals by spectroscopy	Lakshmi Narayana M Mohan	Electronics and Communication Engineering	Filed
10	A technique of formation of coloured newton rings under crossed polarizers in thermotropic liquid crystal	Lakshmi Narayana M Mohan	Electronics and Communication Engineering	Filed
11	A technique to identify iv linearity in thermotropic liquid crystals	Lakshmi Narayana M Mohan	Electronics and Communication Engineering	Filed
12	Accidental life jacket	Dhivya P	Computer Science & Engineering	Filed
13	Ai based daily alert for fuel consumption and distance travelled	Gayathiri N R	Artificial Intelligence and Data Science	Filed
14	An alert system to prevent accidents in two-wheeler	Kamatchi Kannan V	Electrical and Electronics Engineering	Filed
15	An ingenious system to detect the stolen vehicles by number plate recognition	Sowmya P	Computer Technology	Filed

S. No.	Patent title	Name of the faculty	Department	Patent status
16	Anti-collision system in hairpin bends	Saravana Kumar R	Electronics and Communication Engineering	Filed
17	Areca nut climbing and harvesting machine with pesticide sprayer	Kothai A	Civil Engineering	Filed
18	Artificial intelligence prediction system on covid'19 spread	Chandrababha K	Information Technology	Filed
19	Automatic geyser protection system and a method thereof	Kamatchi Kannan V	Electrical and Electronics Engineering	Filed
20	Automatic intravenous infusion monitoring system	Kalaiyarasi M	Electronics and Instrumentation Engineering	Filed
21	Automatic solar panel cleaning system	Alex Stanley Raja T	Electrical and Electronics Engineering	Filed
22	Automatic temperature controlled refrigerator	Sritha P	Electrical and Electronics Engineering	Filed
23	Black waste plastic sorter	Bhuvanesh N	Mechanical Engineering	Filed
24	CCTV automation for home reliability	Dhivya P	Computer Science & Engineering	Filed
25	Chargeable mobile holder	Karthiga M	Computer Science & Engineering	Filed
26	Compact paper counting machine	Sathishkumar C	Mechanical Engineering	Filed
27	Compact personalized air conditioner for double cot with low power consumption	Ravi Kumar M	Mechanical Engineering	Filed
28	Compact portable room heater	Ravi Kumar M	Mechanical Engineering	Filed
29	Deep reinforcement learning and software defined network based optimized routing for computer networks	Dhivya K T	Electrical and Electronics Engineering	Filed
30	Design and fabrication of cassava harvester	Deepankumar S	Automobile Engineering	Filed
31	Design and fabrication of contactless thermometer	Deepankumar S	Automobile Engineering	Filed
32	Design and fabrication of shaft drive bicycle	Deepankumar S	Automobile Engineering	Filed
33	Design and fabrication of smart sprout machine	Manojkumar P	Electrical and Electronics Engineering	Filed

S. No.	Patent title	Name of the faculty	Department	Patent status
34	Design of evacuated bucket with side cutting profile tooth for easy initiation of crack of soil	Prakash K B	Mechanical Engineering	Filed
35	Development of changeable multi colour prints in cotton fabric using photochromic dyes	Rajesh Kumar S	Textile Technology	Filed
36	Development of IOT controlled handloom machine	Kumaresan G	Mechanical Engineering	Filed
37	Device for underwater inspection and rescue	Selvamuthukumaran D	Mechanical Engineering	Filed
38	Documentation of a new smectic ordering “x” in thermotropic liquid crystals	Lakshmi Narayana M Mohan	Electronics and Communication Engineering	Filed
39	E-health monitoring system using raspberry pi and IOT	Selvabharathi P	Electrical and Electronics Engineering	Filed
40	Electricity generation using multipurpose gym kit	Subramaniyan C	Mechanical Engineering	Filed
41	Emergency response system	Sakthiya Ram S	Electronics and Instrumentation Engineering	Filed
42	Erected steep propellant artifact design	Tamilselvi S	BIOTechnology	Filed
43	Fabrication of cost effective helmet by using hybrid (bast/carbon fibre) fml composite	Prasath M S	Aeronautical Engineering	Filed
44	Face mask for beauty treatment impregnated with a cosmetic composition of oryza sativa aqueous extract	Bindhu J	BIOTechnology	Filed
45	Fidget solar spinner	Selvamuthukumaran D	Mechanical Engineering	Filed
46	Filing of a new texture in thermotropic liquid crystal	Lakshmi Narayana M Mohan	Electronics and Communication Engineering	Filed
47	Filling a water tank during emergency	Dhivya P	Computer Science & Engineering	Filed
48	Fire repulsion unit in vehicle chassis and engine bay	Bhuvanesh N	Mechanical Engineering	Filed
49	Flood monitoring system using data analysis & IOT	Dhivya P	Computer Science & Engineering	Filed
50	Food ingredients preservation process using antioxidants	Prakash K B	Mechanical Engineering	Filed

S. No.	Patent title	Name of the faculty	Department	Patent status
51	Gesture controlled bluetooth speaker	Poongodi C	Electronics and Communication Engineering	Filed
52	Gps enabled bus tracking and vacant seats management system for assisting passengers in public transport system	Raju C	Electronics and Communication Engineering	Filed
53	Grey market complaint registration and proof verification using ai with priority prediction and redz	Nataraj N	Information Technology	Filed
54	Handy mosquito repellent device	Karthiga M	Computer Science & Engineering	Filed
55	Hot and cold water flask	Jayakumar N	Mechanical Engineering	Filed
56	Hybrid memory cubeoriented image classification usinf convolutional neural network	Nithya R	Computer Science & Engineering	Filed
57	Hybrid model to detect emergency vehicles in road traffic congestion through live ip based video cam	Gopalakrishnan B	Information Technology	Filed
58	Image reconstruction method via iterative linear interpolation verge points	Thulasimani T	Mathematics	Filed
59	Inflation of airbags in car depending upon the age of the passenger using ai	Ganesh Babu C	Electronics and Instrumentation Engineering	Filed
60	Ingenious traffic management system using IOT	Karthiga M	Computer Science & Engineering	Filed
61	Instant carbonated graviola fruit beverage powder and a process for preparing the same	Saranya S	Food Technology	Filed
62	Integrated human – machine intelligence for ev charging in 5g smart grid	Sathishkannan R	Computer Science & Engineering	Filed
63	Intelligent artificial intelligence and IOT powered efficient energy monitoring architecture for the smart grid system	Balamurugan R	Automobile Engineering	Filed
64	Intelligent system & method for smoke detection and localization based on cloud computing	Philo Sumi	Computer Science & Engineering	Filed

S. No.	Patent title	Name of the faculty	Department	Patent status
65	Internal inoculum supplying apparatus in anerobic fermenter	Kirupa Sankar M	BIOTechnology	Filed
66	IOT based automatic speed surveillance, vehicle over-speed detection and vehicle alerting system using bluetooth beacons	Leeban Moses M	Electronics and Communication Engineering	Filed
67	IOT based mobility vehicle grocery store	Prakash K B	Mechanical Engineering	Filed
68	IOT based portable patient monitoring device	Pushpavalli M	Electronics and Communication Engineering	Filed
69	IOT based smart system to monitor and control electrical appliances	Sritha P	Electrical and Electronics Engineering	Filed
70	Irregular shape measuring tool	Bhuvanesh N	Mechanical Engineering	Filed
71	Jute and polypropylene non woven fabric for car headliner	Thirumurugan V	Textile Technology	Filed
72	Land usage monitoring tool using artificial intelligence and satellite data	Pandiyan M	Information Science and Engineering	Filed
73	Machine learning and fuzzy logic based smart detection of chronic lung cancer	Nirmaladevi J	Information Science and Engineering	Filed
74	Machine learning based patients illness predicationand automatic doctor appointment alert	Balamurugan R	Automobile Engineering	Filed
75	Metal monolith based smokeless incinerator for domestic applications	Kumaresan G	Mechanical Engineering	Filed
76	Method of making cocoon flower from silkcocoons	Subrata Das	Fashion Technology	Filed
77	Milk can cooler	Prakash K B	Mechanical Engineering	Filed
78	Modification of temperature in buildings with pongame oil-tree powder	Velmurugan S	Civil Engineering	Filed
79	Modified bath shower lock	Vivek Kumar P	Mechanical Engineering	Filed
80	Modified saree guard for studs	Sivabalakrishnan R	Mechatronics	Filed
81	Monitoring and modification of room temperature through	Velmurugan S	Civil Engineering	Filed



S. No.	Patent title	Name of the faculty	Department	Patent status
	mobile app			
82	Newfangled modern incinerator bin	Sritha P	Electrical and Electronics Engineering	Filed
83	Obstacle detection using sensor fusion and deep neural network for motion control of smart electric	Uvaraja V C	Mechanical Engineering	Filed
84	Peltier water bottle for heating and cooling	Subramaniyan C	Mechanical Engineering	Filed
85	Pest identification in the paddy field using internet of things	Ramya R	Computer Science & Engineering	Filed
86	Phospholipid containing garlic, curry leaves and turmeric extracts for treatment of adipogenesis	Bindhu J	BIOTechnology	Filed
87	Plastic blended bricks using foundry sand	Ranjitham M	Civil Engineering	Filed
88	Portable mini flocculator	Saravanan B	Automobile Engineering	Filed
89	Preparation of a cocoon ear ring	Subrata Das	Fashion Technology	Filed
90	Preparation of a cocoon lace	Subrata Das	Fashion Technology	Filed
91	Preparation of silk cocoon accessory	Subrata Das	Fashion Technology	Filed
92	Qualitative analysis of phase diagram pertaining to ferroelectric liquid crystal	Lakshmi Narayana M Mohan	Electronics and Communication Engineering	Filed
93	Rain drop collector umbrella	Karthiga M	Computer Science & Engineering	Filed
94	Real time performance monitoring and supervising of cnc machine using IOT techniques	Sasikumar C	Mechanical Engineering	Filed
95	Recycled polymer based material for corrosion protection in new orexisting structures, it's process	Jayaraman A	Civil Engineering	Filed
96	Rfid based intelligent pet feeder	Tamilselvan S	Electronics and Communication Engineering	Filed
97	Sanswich composite boards	Preetha V	Civil Engineering	Filed
98	Self evaporating portable mosquito repellent	Bindhu J	BIOTechnology	Filed

S. No.	Patent title	Name of the faculty	Department	Patent status
99	Self-assembled copolymer composites in the formation of hierarchical nanostructures and its application of gas sensor	Ashokan S	Physics	Filed
100	Self-balancing of electric two-wheeler using gyroscope	Tamilselvan A	Automobile Engineering	Filed
101	Self-sustainable weighing machine	Subramaniyan C	Mechanical Engineering	Filed
102	Semi automatic grains carry over machine	Subramaniyan C	Mechanical Engineering	Filed
103	Sensitizing toy	Renuka K	Electrical and Electronics Engineering	Filed
104	Sensor integrated smart mask to detect covid-19	Kamatchi Kannan V	Electrical and Electronics Engineering	Filed
105	Silk cocoon hollow ear piece	Subrata Das	Fashion Technology	Filed
106	Sisal/viscose blended nonwoven fabrics for seat cushions	Janarthanan M	Textile Technology	Filed
107	Skin stain remover and their application thereof	Bindhu J	BIOTechnology	Filed
108	Small onion peeler	Dhinesh S K	Mechatronics	Filed
109	Smart bath water temperature control system and a method thereof	Maheswari K T	Electrical and Electronics Engineering	Filed
110	Smart bmi monitoring device	Karthikamani R	Electronics and Instrumentation Engineering	Filed
111	Smart ceiling fan dust cleaner	Maheswari K T	Electrical and Electronics Engineering	Filed
112	Smart chair	Perarasi T	Electronics and Communication Engineering	Filed
113	Smart cradle with intruder alert system	Vairavel K S	Electronics and Instrumentation Engineering	Filed
114	Smart dehydration bottle	Veerakumar S	Electrical and Electronics Engineering	Filed
115	Smart healthcare assistance	Karthikamani R	Electronics and Instrumentation Engineering	Filed

S. No.	Patent title	Name of the faculty	Department	Patent status
116	Smart helmet detection system	Sowmya P	Computer Technology	Filed
117	Smart irrigation system based on soil and weather condition	Pushpavalli M	Electronics and Communication Engineering	Filed
118	Smart temperature monitoring system using fingerprint attendance authentication system	Karthiga M	Computer Science & Engineering	Filed
119	Smart voting system using biometric authentication	Arulmurugan L	Electronics and Communication Engineering	Filed
120	Smart-e- inhaler	Pradeesh E L	Mechatronics	Filed
121	Solar based mask disposal bin	Saravana Kumar R	Electronics and Communication Engineering	Filed
122	Solenoid valve operated universal battery terminal clamp	Sundaramahalingam A	Aeronautical Engineering	Filed
123	Spring loaded thin power generation ribbon from natural movements	Chandrasekaran M	Mechanical Engineering	Filed
124	Sustainable tile using recycled asphalt pavement	Ranjitham M	Civil Engineering	Filed
125	Synthesis of nickel oxide nanoparticles using cassia fistula flower extract	Senthil K	Physics	Filed
126	System for maintaining essential nutrients in drinking water using organic seeds	Saravana Kumar R	Electronics and Communication Engineering	Filed
127	Tower bolt	Rajiev R	Mechanical Engineering	Filed
128	Value added yarn from chicken feather fibre with cotton	Saravanan K	Fashion Technology	Filed
129	Weedicide spraying system for tuberos plant using machine learning	Dhivya P	Computer Science & Engineering	Filed
130	Wireless automatic mask dispenser and sanitizer	Tamilselvan S	Electronics and Communication Engineering	Filed
131	Women's safety using ai	Sabarmathi K R	Information Technology	Filed
132	3d printing reusable spool wheel with self locking mechanism	Dhinesh S K	Mechatronics	Published

S. No.	Patent title	Name of the faculty	Department	Patent status
133	A systematic approach to study and analyse the human resource management in library sciences	Thulasimani T	Mathematics	Published
134	Android based quiz application	Rajeshkumar G	Information Science and Engineering	Published
135	Artificial intelligence based management of smart production system for e-industries	Prabhu V	Biomedical Engineering	Published
136	Automatic scoop warpping machine	Tamilselvan A	Automobile Engineering	Published
137	Bct-bit attendance tracking system using opencv and tkinter	Sri Vigna Hema V	Information Technology	Published
138	Continuous monitoring of galvanic skin response for icu/ot patients	Deepa D	Biomedical Engineering	Published
139	Cooling system for wind turbine nacelle operating in hot climatic conditions	Vadivelu P	Aeronautical Engineering	Published
140	Cost effective filtration system for small and medium scale manufacturing sectors	Sudev Dutta	Textile Technology	Published
141	Deep learning based analysis to identify the impact of various social media platforms on academic performance of students	Thulasimani T	Mathematics	Published
142	Deep learning techniques to analyze the risks and benefits the first generation women entrepreneurs	Thulasimani T	Mathematics	Published
143	Design and fabrication of rice serving spoon cleaner	Dhinesh S K	Mechatronics	Published
144	Design system of robotic vacuum cleaner with blades on sides for flight	Eswaramoorthy V	Information Technology	Published
145	Detection of a new texture in a thermotropic liquid crystal	Lakshmi Narayana M Mohan	Electronics and Communication Engineering	Published
146	Duster with integrated water cartridge	Dhinesh S K	Mechatronics	Published
147	Epilepsy prognosis system using cloud computing	Venkateshkumar U	Electronics and Communication Engineering	Published

<b>S. No.</b>	<b>Patent title</b>	<b>Name of the faculty</b>	<b>Department</b>	<b>Patent status</b>
148	Extendable sapodilla fruit picker with storage bag	Dhinesh S K	Mechatronics	Published
149	Framework for the protection of cyber - physical system of electric vehicle charging stations and the electricity grid	Saravanan B	Automobile Engineering	Published
150	Garbage separator with dual x-rays for healthy environment	Perarasi T	Electronics and Communication Engineering	Published
151	Identification and mitigation of attacks in wireless sensor network using trust based blockchain mechanism	Prakash K	Mathematics	Published
152	Identification of a new smectic ordering in a thermotropic liquid crystal	Lakshmi Narayana M Mohan	Electronics and Communication Engineering	Published
153	Integrated combinational lock for trolley bags	Dhinesh S K	Mechatronics	Published
154	IOT and UAV based environmental monitoring system	Ramya P	Electronics and Communication Engineering	Published
155	IOT based smart home gardening system	Rajeshkumar G	Information Science and Engineering	Published
156	IOT based smart switches with child lock and voice control facility	Saranya K	Computer Science & Engineering	Published
157	Light weight eco friendly tiles - green weathering tiles	Jayanthi V	Civil Engineering	Published
158	Low cost screening of glaucoma through EOG signals	Harikumar R	Electronics and Communication Engineering	Published
159	Machine learning based approach along with six sigma techniques to assess the tasks of employees on their capabilities	Thulasimani T	Mathematics	Published
160	Machine learning based approach to predict the impact of covid-19 pandemic on financial management of an educational institutions	Thulasimani T	Mathematics	Published
161	Machine learning based human mental stress detection in daily life scenarios and alerting	Thulasimani T	Mathematics	Published



S. No.	Patent title	Name of the faculty	Department	Patent status
	through internet of things			
162	Method and system of pollution control and development of zero deflection structures	Jayaraman A	Civil Engineering	Published
163	Method of biosensor fabrication to detect chemical warfare agents	Kirupa Sankar M	BIOTechnology	Published
164	Multi-bulb changer kit	Dhinesh S K	Mechatronics	Published
165	New phase and textural documentation in a thermotropic liquid crystal	Lakshmi Narayana M Mohan	Electronics and Communication Engineering	Published
166	R-CNN based wild animals conservation	Sangeetha Sn	Computer Science & Engineering	Published
167	Resistance temperature detector from a liquid crystal	Lakshmi Narayana M Mohan	Electronics and Communication Engineering	Published
168	Split comb	Dhinesh S K	Mechatronics	Published
169	Statistical analysis of numerical solution of linear and non-linear algebraic equations	Thulasimani T	Mathematics	Published
170	Trimmer hair collector	Dhinesh S K	Mechatronics	Published
171	Unassailably secure algorithm for file encryption	Rajeshkumar G	Information Science and Engineering	Published
172	Woman safety hidden malicious chip using IOT based tracking technology	Saranya K	Computer Science & Engineering	Published
173	Method for separation and identification of gold from bosindicus cow urine	Balakrishnaraja R	BIOTechnology	Granted
174	Rain drop collector umbrella	Karthiga M	Computer Science & Engineering	Granted

## Recent Achievement

### Student bagged first prize in Dare to Dream 3.0 contest organized by DRDO, Govt. of India



The Defence Research and Development Organization launched its “Dare to Dream 3.0” innovation competition as a tribute to the visionary, the legendary former President and eminent scientist Dr APJ Abdul Kalam. The program is launched for Emerging Technologies to promote individuals and start-ups for innovation in defence and aerospace technologies in the country after the call of "Aatmanirbhar Bharat" given by Prime Minister Shri Narendra Modi.

Ms.Snekha AC, Rakgelnath V P, Hemachandar P, and Harish Kumar R from III-Year BIOTechnology have won FIRST PLACE. Students presented a design prototype on developing integrated biosensors based on optical nose sensing technology for detecting chemical warfare agents at ultra-low concentration. The Team leader, Ms. Snekha AC, received the award from our Honourable Defence Minister of India.

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### *Address for Communication*

#### *IQAC – Research & Development*

*Centre for Research (CFR), Research Park, Bannari Amman Institute of Technology, Sathyamangalam – 638 401, Erode District, Tamil Nadu*

*headrd@bitsathy.ac.in | research@bitsathy.ac.in*