



# KONGU ENGINEERING COLLEGE

## CAMPUS R&D NEWS



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### PH.D VIVA-VOCE COMPLETED

1. D.Ramarajan, Research Scholar, Department of Physics defended his thesis entitled "Spectroscopic investigations and quantum chemical calculations of certain select aromatic compounds" on 01.02.2021 under the guidance of Dr.K.Tamilarasan / Physics.
2. A.R.Krishnaraja, Research Scholar, Department of Civil Engineering defended his thesis entitled "Investigation on engineered cementitious composites with hybrid fibers" on 10.02.2021 under the guidance of Dr.S.Anandakumar / Civil.
3. PCD.Kalaivaani, Research Scholar, Department of Computer Science and Engineering defended her thesis entitled "Enhancing the classification accuracy in sentiment analysis using hybrid and ensemble methods" on 24.02.2021 under the guidance of Dr.R.Thangarajan / CSE.
4. R.Prabakaran, Research Scholar, Department of Automobile Engineering defended his thesis entitled "Studies on the performance of a mobile air conditioning system using HFO-1234yf as an alternative for HFC-134a" on 11.02.2021.
5. K.Prithivi, Research Scholar, Department of Electrical and Electronics Engineering defended her thesis entitled "Analysis and design of optimal power conditioning unit for fuel cell vehicle applications" on 25.02.2021.

### R&D PROJECTS SACTIONED (2020-2021)

1. Dr.R.Baskar, Food Technology, Dr.C.Maheswari, Mechatronics Engineering and Dr.T.Manikandan, Chemistry received research grant of Rs.10,11,137/- for the project entitled Developing electrical discharge non-thermal plasma (EDNP) based treatment process to achieve environmental compatibility in selected process industry wastewater remediation under AICTE RPS scheme on 20.03.2020, Ref.No.8-208/RIFD/RPS (POLICY-1)/2018-19
2. Dr.B.Meenakshipriya, Dr.R.Parameshwaran and A.Balaji of Mechatronics Engineering received grant of Rs.16,57,016/- for the project entitled Modernization of robotics and machine vision laboratory for artificial intelligence and deep learning applications with robot operating system (ROS) platform from AICTE-MODROB scheme on 16.05.2020, Ref.No.84-68/RIFD/MODROB /Rural/Policy-1/2019-20

3. Dr.V.Chitra Devi, Dr.R.Baskar, and R.Sorna Prema of Food Technology received grant of Rs.10,57,016/- for the project entitled Modernization of food analysis and quality control laboratory from AICTE-MODROB scheme on 16.05.2020, Ref.No.8-208/RIFD/RPS (POLICY-1)/2018-19
4. Dr.S.Vijayachitra, Dr.U.S.Ragupathy, Dr.M.Ponnibala, Dr.S.J.Suji Prasad and C.Aravind of Electronics and Instrumentation Engineering received grant of Rs.11,96,667/- for the project entitled Development of intelligent automation systems with integration of wireless sensor networks and internet of things (Industry 4.0) from AICTE-MODROB scheme on 16.05.2020, Ref. 84-69/RIFD/MODROB/Rural/Policy-1/2019-20.
5. Dr.C.Maheswari, Mechatronics Engineering received research grant of Rs.2,50,000/- for mentoring the industry project entitled Prototyping for measuring hardness indentation of casted components through machine vision system from EDII under IVP scheme on 27.07.2020, Ref.No. Lr.No.2270/EDII/JD/2018
6. Dr.R.Selvakarathi, Electronics and Instrumentation Engineering and Dr.P.Shanmugam, Chemical Engineering received research grant of Rs.2,43,000/- for mentoring the industry project entitled Waterless dyeing machine from EDII under IVP scheme on 27.07.2020, Ref.No. Lr.No.2270/EDII/JD/2018
7. Dr.M.Karthick, Dr.S.Usha and P.Karthikeyan of Electrical and Electronics Engineering received research grant of Rs.18,66,667/- for the project entitled An investigation into the maneuvering performance of Proton Exchange Membrane (PEM) fuel cell for its recoverable degradation of electrical behavior under extreme humidification and membrane hydration conditions from AICTE under RPS scheme on 14.08.2020, Ref. No.8-55/FDC/PRS(POLICY-1)/2019-20.
8. R.P.Karthick of Electronics and Communication Engineering received research grant of Rs.2,65,000/- for mentoring the industry project entitled Intelligent assistive device for people with vision impairment from EDII under IVP scheme on 29.08.2020, Ref.No. Lr.No.2270/EDII/JD/2018
9. Dr.N.Senthilnathan and P.Sethupathi of Electrical and Electronics Engineering received research grant of Rs.6,79,000/- for the project entitled Design and development of novel submersible line start permanent magnet assisted synchronous reluctance motor for agricultural water pumping from DST under TDT scheme on 30.09.2020, Ref.No.DST/TDT/AGRO35/2020 (G).
10. Dr.K.Gomathi of Mechatronics Engineering received research grant of Rs.2,50,000/- for mentoring the industry project entitled Design and fabrication of PVC conduit pipe bending machine from EDII under IVP scheme on 17.11.2020, Ref. No. Lr.No.2270/EDII/JD/2018.
11. Dr.C.Maheswari of Mechatronics Engineering received research grant of Rs.2,50,000/- for mentoring the industry project entitled Fabrication of sesame oil extraction machine using direct press method from EDII under IVP scheme on 22.12.2020, Ref. No. Lr.No.2270/EDII/JD/2018.



12. Dr. M. Srinivasan of Electrical and Electronics Engineering received research grant of Rs.18,30,000/- for the project entitled Investigation on partial discharge characteristics and dissolved gas analysis of punga oil from SERB under TARE scheme on 15.12.2020, Ref.No. TAR/2020/000149.
13. Mr. M. S. Kamalesh of Electrical and Electronics Engineering received research grant of Rs.18,30,000/- for the project entitled Development and validation of semi-centralized DC-microgrid model for Indian residential DC-home from SERB under TARE scheme on 22.12.2020, Ref.No. TAR/2020/000221.

## REFERRED JOURNAL PUBLICATIONS

1. Raja, K., Hasan Abdul Kader, J.M., and Hariswaran, S., (2021). Experimental Investigation on Pullout Capacity of Model Pile in Cohesionless Deposits. *IOP Conference Series: Materials Science and Engineering*, Vol.1055, p.012042.
2. Raja, K., Elakky, E., Manikandan, A.T., Surya, B., and Nekila, M., (2021). Strength Characteristics Developed in Cement Stabilized Soil, *IOP Conference Series: Materials Science and Engineering*, Vol. 1055, p.012042.
3. Ravi Prakash, T., Balaji, S., Anandakumar, S., and Vignesh, (2021). Experimental Investigation on Behaviour of RC Circular and Square Columns Confined with Natural Fabrics, *IOP Conference Series: Materials Science and Engineering*, Vol.1055, p.012042.
4. Navaneethan, K.S., Kiruthika Nandhini, B., Anandakumar, S., and Jayakrishna, K.P., (2021). Pull-Out and Bond Degradation of Rebars in Reinforced Concrete Structures, *Lecture Notes in Mechanical Engineering*, pp.261-275.
5. Sivasathya, K., and Vijayanand, S., (2021). Review of Cold-Formed Steel Columns, *Lecture Notes in Mechanical Engineering*, pp.289-300.
6. Shadheer Ahamed, M., Ravichandran, P., and Krishnaraja, A.R., (2021). Natural Fibers in Concrete - A Review. *IOP Conference Series: Materials Science and Engineering*, Vol.1055, p.01205.
7. Arun Kumar, M., Selvapraveen, S., DharaniPrasath, P., Bavithran, R., and Dhanabal, G., (2021). Rheological properties of self compacting concrete with partial replacement of metakaolin in cement and plastic fibre. *IOP Conference Series: Materials Science and Engineering*, Vol.1055, p.012052.
8. Santhoshkumar, K., Muralimohan, N., Ponkalidass, K., Naveenkumar, S., and Nirmal, K., (2021). GIS Study on Impact of Urbanisation in Perundurai on Ground Water Quality. *IOP Conference Series: Materials Science and Engineering*, Vol.1055, p.012042.
9. Suchithra, S., and Jayashree, S., (2021). Structural Behavior of Glulam Beams with Proper Reinforcement Bars A Review. *Lecture Notes in Mechanical Engineering*, pp.277-287.
10. Kulanthaiavel, P., Naveenraj, V., and Prabakaran., (2021). Treatment of Contaminated Wastewater from Textile Industry: A review. *IOP Conference Series: Materials Science and Engineering*, Vol.1055, p.012042.
11. Krishnaraja, A.R., and Guru, K.V., (2021). 3D Printing Concrete: A Review. *IOP Conference Series: Materials Science and Engineering*, Vol.1055, p.012042.
12. Thiyaneswaran, M.P., Revin Jenova, L., and Navaneethan, K.S., (2021). Review paper on material properties of high performance concrete. *IOP Conference Series: Materials Science and Engineering*, Vol.1055, p.012042.
13. Murugan, P.C., and Joseph Sekhar, S., (2021). Investigation on the yield of producer gas from tamarind shell (*Tamarindus Indica*) as feedstock in an Imbert type biomass gasifier. *Fuel*, Vol.292(120310), pp.1-9.
14. Murugan, P.C., Navaneethakrishnan, P., and Joseph Sekhar, S., (2020). An experimental investigation on utilizing cassava stalk as biomass sources in a gasifier. *IOP Conference Series: Materials Science and Engineering*. Vol.1057, p.012040.
15. Bagathe Singh, N., and Sivakumar, A., (2021). Experimental Evidence on enhancing equipment effectiveness with the implementation of TPM Principles in the Bus body Building Industry. *Tierarztliche Praxis*, Vol. 40, pp.2429-2442.
16. Dhanish, M.P., Selvakumar, P., Ashwin, V., and ArunKumar, P.N., (2021). Experimental studies on micro-channel heat sink with different heat transfer fluid. *AIP Conference Proceedings*, Vol. 2317(030019), pp. 1-16.
17. Satheesh Kumar, K.V., Vikram, S., Vigneswaran, S.J., and Sudhanhari, C.T.A., (2021). Manufacturing methods of healthy and edible cups- An integrative review. *IOP Conference Series: Materials Science and Engineering*, Vol.1055, p.012017.
18. Rajagopal, T., Prasanna, N., Ajay, S., Yazharasu, A., and Aranganathan, K., (2021). Exergy analysis of forced convection solar flat plate collector using different working fluids. *IOP Conference Series: Materials Science and Engineering*, Vol.1055, p.012014.
19. Karthi, S., Sasikumar, K.S.K., Sangeetha, R.K., Saravanan, N., (2021). Effect of relative content on mechanical properties of coir and Napier grass fibers reinforced hybrid polyester composites. *Materials Today's Proceedings*, Vol.33(7), pp.2929-2933.
20. Venkatesa Prabu, D., Meenaskhi Priya, B., and Priyanka E.B., (2021). Design Fabrication and Control of Soft Robotic Gripper for Material Handling. *Lecture notes on Materials, Design, and Manufacturing for Sustainable Environment, Lecture Notes in Mechanical Engineering*, 496754.
21. Pratheep, V.G., Priyanka, E. B., Thangavel, S., Heenalisha, K., Ariya Manickam, M., and Logaram, A. P., (2021). Automatic Body Posture Corrector for Spinal Cord Patients, *Lecture notes on Materials, Design, and Manufacturing for Sustainable Environment, Lecture Notes in Mechanical Engineering*, 496754.
22. Ramya Suresh., Baskar Rajoo., Maheswari Chenniappan., and Manikandan Palanichamy (2021). Treatment possibilities of electrical discharge non-thermal

- plasma for industrial wastewater treatment-review. *IOP Conference Series: Materials Science and Engineering*, Vol.1055(1), p.012018.
23. Parameshwaran, R., Maheswari, C., Nithyavathy, N., Rishab Govind, R., Selvakumar, N., Robin Deva Dharshan, N., and Vasanth, M., (2021). LABVIEW Based Simulation on Welding Seam Tracking Using Edge Detection Technique. *IOP Conference Series: Materials Science and Engineering*, Vol.1055(1), p. 012026.
  24. Maheswari, C., Perinchery, A.A.B., Priyanka, E.B., Ambika, K.S., Narmatha, S., Prenitha, A. and Monisha, M., 2021, February. Review on Online Monitoring and Control in Industrial Automation—An IoT Perspective. In *IOP Conference Series: Materials Science and Engineering*, Vol. 1055(1), p. 012034.
  25. Rooshan, M.J., Shankar, S., and Nithyaprakash, R., (2021). Design and fabrication of fresh juice vending machine for commercial applications. *IOP Conference Series: Materials Science and Engineering*, Vol.1055(1), p. 012010.
  26. Pratheep, V.G., Tamilarasi, T., Dhileephan, K., Alwin J Antony, Heeraj, A., and Akash, M., (2021). Design and fabrication of multitasking transit robot. *IOP Conference Series: Materials Science and Engineering*, Vol. 1057(1), p. 012034.
  27. Pratheep, V.G., Chinnathambi, M., Priyanka, E.B., Ponmurugan, P., Pridhar and Thiagarajan (2021). Design and Analysis of six DOF Robotic Manipulator. *IOP Conference Series: Materials Science and Engineering*, Vol.1055(1), p.012005.
  28. Arunkumar, V., Adithya, B., and Bijoy Antony, P.T., (2021). Snake Robots for Rescue Operation. *IOP Conference Series: Materials Science and Engineering*, Vol. 1055(1), p.012001.
  29. Arunkumar, V., Meenakshipriya, B., Antony, P. B., Adithya, B., and Vikinesh, M. H., (2021). Design and Fabrication of Octopod for Survey and Rescue Operation. *IOP Conference Series: Materials Science and Engineering*, Vol. 1055(1), p.012021.
  30. Gomathi, K., Ganesh, T., Bharanidharan, J., Arvinth Prajathkar, A.P., and Aravinthan, R., (2021). Condition Monitoring of 3D Printer Using Micro Accelerometer. *IOP Conference series: Materials Science and Engineering*, Vol. 1055(1), p.012035.
  31. Gomathi, K., Arangamuthalvan, Deepigkashri, Dharnieshwaran, C.B., Dhivya, S., and Praveen, C., (2021). Design and Fabrication of Low Cost 3D Printer. *IOP Conference series: Materials Science and Engineering*, Vol. 1055 (1), p.012036.
  32. Balaji, A., Mithil, J., and Jason Gousanal, J., (2021). Design of Dual Copter for Surveillance Applications. *IOP Conference Series: Materials Science and Engineering*, Vol.1012(1), p.012021.
  33. Balaji, A., Mithil, J., & Gousanal, J. J., (2021). Design and Analysis of Universal Gripper for Robotics Applications. *IOP Conference Series: Materials Science and Engineering*, Vol.1012(1), p.012006.
  34. Balaji, A., Shanthini, E.R., Rooshan, M.J., and Sivaram, V., (2021). Robust Design of Smart Lawn Cutter for Gardening Companion. *IOP Conference Series: Materials Science and Engineering*, Vol.1012(1), p. 012005. IOP Publishing.
  35. Balaji, A., Ragunathan, R., Sai, R.R., and Nithya, V., (2021). Infobot: An Autonomous System for Offline Shopping. *IOP Conference Series: Materials Science and Engineering*, Vol.1055(1), p. 012004.
  36. Balaji, A., Rithic Sai, R., Jason Gousanal, J., and Mithil, J., (2021). Robust Design of Automatic Sheet Fixing System for Metal Roofing. *IOP Conference Series: Materials Science and Engineering*, Vol.1055(1), p. 012009.
  37. Nithyavathy, N., Arun Kumar, S., Rahul, D., Satheesh Kumar, B., Shanthini, E.R., and Naveen, C., (2021). Detection of fire prone environment using Thermal Sensing Drone. *IOP Conference Series: Materials Science and Engineering*, Vol.1055(1), p.012006.
  38. Kiruba Shankar, R., Indra, J., Oviya, R., Heeraj, A and Ragunathan, R., (2021). Machine Vision based quality inspection for automotive parts using edge detection technique. *IOP Conference Series: Materials Science and Engineering*, Vol.1055(1), p.012029.
  39. Tony Thomas, A., Mahesh Kumar, K.V., Thangarasu, S.K., and Naveen Saravanan, S., (2021). Design and Development of Mobile AID for Muscular Dystrophy. *IOP Conference Series: Materials Science and Engineering*, Vol.1055(1), p.012046.
  40. Praveen Kumar, S., Srihariharan, D., Sai Harish, K. M., Adithya and Hemachander, R., (2021). Design and fabrication of IOT switch with manual override. *IOP Conference Series: Materials Science and Engineering*, Vol.1055(1), p. 012086.
  41. Praveen Kumar, S., Hehma Gayatri, R., Nathiya, S., and Hemachander, R., (2021). Design and Fabrication of Semi-Automated Facsimile Stamping Machine. *IOP Conference Series: Materials Science and Engineering*, Vol.1055(1), p. 012085.
  42. Prabu, D.V., Meenakshi Priya, B., Priyanka, E.B., and Kalaiarassan, G. (2021). Design and Fabrication of a Multinomial Model for Machine Interference Problem. *IOP Conference Series: Materials Science and Engineering*, Vol.1055(1), p.012049.



43. Priyanka, E.B., Thangavel, S., Madhuvishal, V., Tharun, S., Raagul, K.V., and Shiv Krishnan, C.S., (2021). Application of Integrated IoT Framework to Water Pipeline Transportation System in Smart Cities, In: Peter J., Fernandes S., Alavi A. (eds) Intelligence in Big Data Technologies—Beyond the Hype. *Advances in Intelligent Systems and Computing*, Vol.1167.
44. Priyanka, E.B., Thangavel, S., and Gao, X.Z., (2021). Review analysis on cloud computing based smart grid technology in the oil pipeline sensor network system. *Petroleum Research*, Vol.6(1), pp.77-90.
45. Muthukumar, A., and Krishnamurthy, K., (2021). Bus body manufacturing system via FEMA and fuzzy logic controller. *Soft Computing*, Vol. 25, pp.3889–3901.
46. Suganeswaran, K., Dhileephan, K., Nithyavathy, N., Ganeshan, P., Arunkumar, S., and Antony, A.J., (2021). Machine Learning based Mechanism for Crowd Mobilization and Control, *6<sup>th</sup> International Conference on Inventive Computation Technologies (ICICT), Coimbatore, India, 2021*, pp. 1334–1339.
47. Baskaran, S., Ramkumar, V., Venkatesa Prabhu, D., Ramesh Kumar, T., and Meenakshipriya, B., (2021). A Extensive review on befitting batteries and drives for electric vehicles. *Lecture notes on Materials, Design, and Manufacturing for Sustainable Environment, Lecture Notes in Mechanical Engineering*, 496754.
48. Sathiskumar, S., Sureshkumar, M., Kumar, R.V.R., Aswathaman, R. and Dhavaneeswaran, N., (2021). Effects of gasoline fumigation on the performance and emission characteristics of CI engine fuelled with mahua biodiesel. *AIP Conference Proceedings*, Vol.2317(1), pp.030014.
49. Boopalan, N., Kalidasan, B., Kumar, D.R., Ragupathi, E., Gurumoorthy, M. and Praveenraj, S., (2021). Experimental study and analysis of single slope solar still integrated with Phase Change Material. *IOP Conference Series: Materials Science and Engineering*, Vol.1059(1), pp.012010.
50. Boopalan, N., Kalidasan, B., Ranjith, K., Dhanush, B., Anbarasu, S. and Selvam, S.P., (2021). Experimental Study and Performance Analysis of Phase Change Material Integrated Stepped Slope Solar Still. *IOP Conference Series: Materials Science and Engineering*, Vol. 1059(1), pp.012002.
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52. Chinnasamy, J., Periasamy, S., Chinnasamy, V., Kumar, H.P., Hariharan, S., Diwakar, A., and Piruthiviraj, B., (2021). Design and Analysis of Bumper Beam and Energy Absorbers by Using Composite Materials. *IOP Conference Series: Materials Science and Engineering*, Vol.1055(1), pp.012044.
53. Chinnasamy, J., Periasamy, S., Singh, A.P., Mohanesh, S., Manikandan, R., Gokul, L., and Deepak, S., (2021). Study and Simulation of Autonomous Quadrotor Tracking a Pre-Defined Trajectory Using Matlab. *IOP Conference Series: Materials Science and Engineering*, Vol.1055(1), pp.012045.
54. Periasamy, S., Chinnasamy, J., Natarajan, J., Ravirajan, S., and Nagharajan, D., (2021). Study on performance and emission characteristics of split injection CRDi engine fueled with orange peel oil and diethyl ether. *IOP Conference Series: Materials Science and Engineering*, Vol.1055(1), pp.012043.
55. Deepankumar, S., Saravanan, B., Sudhirkumar, V., Boopalan, N., Sundaramahalingam, A. and Dhayaneethi, S., (2021). Design and Analysis with Optimization of Car Radiators using Nanofluids. *Book Chapter on Advanced Manufacturing Systems and Innovative Product Design: Select Proceedings of IPDIMS 2020*, p.33.Springer.
56. Usha, S., Karthik, M., Lalitha, R., Jothibasu, M., and Krishnamoorthy, T., (2021). Automatic Turning ON/OFF Bike Indicator Using Offline GPS Navigation System. *IOP Conference Series: Materials Science and Engineering*, Vol.1055(1), pp.012032.
57. Ashok Kumar, L., Albert Alexander, S., and Uma Maheswari, Y., (2021). Performance Enhancement of a Photovoltaic Module Using Solar Functional Coatings. *Journal of Materials Science: Materials in Electronics*, Vol.32(1), pp.1242-1257.
58. Devi, D., Sophia, S., and Maheswari, S., (2021). Real Time Cognitive State Prediction Analysis using Brain Wave Signal. *IOP Conference Series: Materials Science and Engineering*, Vol.1055, No.012125.
59. Sarathkumar, D., Srinivasan, M., Albert Alexander Stonier., and Ravi Samikannu., (2021). A Research Survey on Microgrid Faults and Protection Approaches, *IOP Conference Series: Materials Science and Engineering*, Vol.1055, No.012128.
60. Sarathkumar, D., Srinivasan, M., Albert Alexander Stonier., Ravi Samikannu., Narasimha Rao Dasari., and Raymon Antony Raj., (2021). A Technical Review on Classification of Various Faults in Smart Grid Systems. *IOP Conference Series: Materials Science and Engineering*, Vol.1055, No.012152.
61. Sarathkumar, D., Srinivasan, M., Albert Alexander Stonier., Ravi Samikannu., Narasimha Rao Dasari., and Raymon Antony Raj., (2021). A Technical Review on Self-Healing Control Strategy for Smart Grid Power System. *IOP Conference Series: Materials Science and Engineering*, Vol.1055, No.012153.
62. Gomathy, S., Sabarimuthu, M., KrithikaSree, S., Radha, J., Vennila, R., and Krishna, M.P., (2021). Photovoltaic - Battery Operated Electric Vehicle with an Energy Management Strategy. *IOP Conference Series: Materials Science and Engineering*, Vol.1055, No.012134.



63. Sabarimuthu, M., Senthilnathan, N., Monnisha, A.M., KamaleshKumar, V., Krithika Sree, S., and Mala Sundari, P., (2021). Measurement and Analysis of Power Quality Issues Due to Electric Vehicle Charger. *IOP Conference Series: Materials Science and Engineering*, Vol.1055, No.012131.
64. Radha, D., Arun Kumar, M., Nagarjuna Telagam, and Sabarimuthu, M., (2021). Smart Sensor Network-Based Autonomous Fire Extinguish Robot Using IoT. *International Association of Online Engineering*, Vol.17(1), pp.101-110.
65. Navinkumar, T.M., Aruljothi, R., Srinivasan, M., and Albert Alexander Stonier., (2021). Hybrid PV-Wind System with power quality improvement using PV-DVR. *IOP Conference Series: Materials Science and Engineering*, Vol.1055, No.012145.
66. Sukumar Ponnusamy., Ravi Samikannu., Tihabologo, B.A., W Ullah., and Srinivasan Murugesan., (2021). Design and development of microcontroller based temperature monitoring and control system for power plant generators. *IOP Conference Series: Materials Science and Engineering*, Vol.1055, 012158,pp.1-9.
67. Sujatha Balaraman., Madavan, R., Vedhanayaki, S., Saroja, S., Srinivasan, M., and Albert Alexander Stonier., (2021). Fault Diagnosis and Asset Management of Power Transformer Using Adaptive Boost Machine Learning Algorithm. *IOP Conference Series: Materials Science and Engineering*, Vol.1055, No.012133.
68. Srinivasan, M., Albert Alexander Stonier., Visalaxi, G., Revanth, M., Sanjeevkumar, K., Sinduja, B., and Subiksha, S., (2021). Design of Bidirectional Battery Charger for Electric Vehicle. *IOP Conference Series: Materials Science and Engineering*, Vol.1055, No.012141.
69. Srinivasan, M., Nithya Sai, S., Albert Alexander, S., Prabhakaran, N., Gokul, C., and Visalaxi, G., (2021). Development of peanut separator and thruster. *IOP Conference Series: Materials Science and Engineering*, Vol.1055, No.012053.
70. Karuppasamy Pandiyan, M., Agnes Idhayaselvi, V., Danalakshmi, D., and Sheela, A., (2021). Online estimation of control parameters of FACTS devices for ATC enhancement using artificial neural network. *IOP Conference Series: Materials Science and Engineering*, Vol.1055, No.012146.
71. Sheela, A., Atshaya, M., Revathi, S., and Jeyapaul Singh, N., (2021). Investigation on PMSM for electric vehicle applications using co-simulation of MATLAB and magnet software. *IOP Conference Series: Materials Science and Engineering*, Vol.1055, No.012138.
72. Manjunathan, A., Suresh Kumar, A., Udhayanan, S., Thirumarai Selvi, C., and Albert Alexander, S., (2021). Design of Autonomous Vehicle Control using IoT. *IOP Conference Series: Materials Science and Engineering*, Vol.1055, No.012008.
73. Anand Prem, P.K., Pranit Jeba Samuel, C., Nagaraj, S., Subhashree, G.R., and Albert Alexander, S., (2021). Frequency sextupling millimeter wave generation by using lithium niobate mach zehnder modulator without an optical amplifier. *IOP Conference Series: Materials Science and Engineering*, Vol.1055, No.012066.
74. Gokulakrishnan, K., Kiruthiga, B., Jayapal, N., Karthi, S.P., and Albert Alexander, S., (2021). Detection & Defensive Approach for Primary user Emulation Attacking Cognitive Radio Network. *IOP Conference Series: Materials Science and Engineering*, Vol.1055, No.012070.
75. Senthil Kumar, V., Nagadeepan, A., Hubert Tony Raj, L., Sabarish, P., and Albert Alexander, S., (2021). Optimization of aluminum alloy by CO<sub>2</sub> laser cutting using genetic algorithm to achieve surface quality. *IOP Conference Series: Materials Science and Engineering*, Vol.1055, No.012123.
76. Kavitha, M., Syedakbar, SA, Meenal, T., Sarath Kumar, R., and Albert Alexander, S., (2021). Enhanced Algorithm for Bio Metric Based Secret Data Hiding. *IOP Conference Series: Materials Science and Engineering*, Vol.1055, No.012126.
77. Rajaguru, R., Mathankumar, M., Balakumar, A., Dinesh Kumar, J.R., and Albert Alexander, S., (2021). An Intelligent Framework for Traffic Management System using Narrow Band-IoT. *IOP Conference Series: Materials Science and Engineering*, Vol.1055, No.012127.
78. Sivamani, D., Shyam, D., Nazar Ali, A., Premkumar, K., Narendiran, S., and Albert Alexander, S.,(2021). Solar Powered Battery Charging System using Optimized PI Controller for Buck Boost converter. *IOP Conference Series: Materials Science and Engineering*, Vol.1055, No.012151.
79. Nagarajan, L., Anne Rosaline, A., Baladhandapani, R., Nazar Ali, A., and Albert Alexander, S., (2021). Analysis of Three Phase Nine Level Diode Clamped Multi Level Inverter. *IOP Conference Series: Materials Science and Engineering*, Vol.1055, No.012155.
80. Udayakumar, M.D., Saradha Devi, A., Raja, E., Nazar Ali, A., and Albert Alexander, S., (2021). Augmentation of Low Voltage Ride through (LVRT) Capability using ANN based electric spring for a Grid-tied Wind Energy Conversion System. *IOP Conference Series: Materials Science and Engineering*, Vol.1055, No.012156.
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