JEPPIAAR
ENGINEERING COLLEGE

(A CHRISTIAN MINORITY INSTITUTION)

JEPPIAAR NAGAR, RAJIV GANDHI SALAI, CHENNAI – 600119

Curricular Details

Faculty

AY – (2020-2021)

PRINCIPAL
JEPPIAAR ENGINEERING COLLEGE
JEPPIAAR NAGAR,
RAJIV GANDHI SALAI,
CHENNAI - 600119

Faculty Achievement Curricular

Academic Year -select-*	*2020-21*
*Number of Research papers published in Journals**	**51**
*Number of patents granted**	**01**
*Number of papers published in National Conferences**	**05**
*Number of papers published in International Conferences**	**64**
*Number of Books Authored **	**01**
*Number of book chapters authored**	**02**
*Number of new externally funded research projects received **	**00**
*Fund received during this academic year**	**Rs.2,54,879**

List of Journal Articles Published 2020-21

1.Jagan, G.C.; Jesu, P. Wireless Sensor Network Cluster Head Selection and Short Routing Using Energy Efficient ElectroStatic Discharge Algorithm. *Journal of Engineering (United Kingdom)*, **2022**, Article ID 8429285, pp. 1–40. https://doi.org/10.1155/2022/8429285

2. Nisha Jenipher, V.; Princy Suganthi Bai, S.; Venkatesh, A.; Ravindran, K.; Sheeba, A. High Level Identification Using Palm Vein Based on Deep Neural Network. *Lecture Notes in Networks and Systems*, **2022**, Vol. 317, pp. 255–264. https://doi.org/10.1007/978-981-16-5640-8_20

3. Pauline, T.; Janardhanan, G.; Sangeetha, P.; Ashok, V. Retrofitting of Exterior Beam-Column Joint—A Review. *Lecture Notes in Civil Engineering*, **2022**, Vol. 179, pp. 279–289. https://doi.org/10.1007/978-981-16-5041-3_21

4. Balaji, C.; Hemakesavulu, O.; Dominic Savio, A.; Vinothkumar, B.; Sakthi, S.; Sivaperumal, P. A Transformerless Buck-Boost Converter as Maximum Power Point Tracker for Battery Charging. *Lecture Notes in Electrical Engineering*, **2022**, Vol. 795, pp. 237–246. https://doi.org/10.1007/978-981-16-4943-1_22

5. Raj, F.R.M.S.; Boopathi, G.; Kalpana, D.; Jaya, N.V.; Pandurangan, A. Sustainable development through restoration of *Prosopis juliflora* species into activated carbon as

electrode material for supercapacitors. *Diamond and Related Materials*, **2022**, Vol. 121, 108767. https://doi.org/10.1016/j.diamond.2021.108767

6. Muruganandam, S.; Arokia Renjit, J. A Node Quality Based Cluster Header Selection Algorithm for Improving Security in MANET. *Lecture Notes in Electrical Engineering*, **2022**, Vol. 789, pp. 119–134. https://doi.org/10.1007/978-981-16-1338-8_11

7. Ashok, V.; Geetha, N.B.; Rajkumar, S.; Pauline, T. Experimental Investigations for Thermal Energy Management by Encapsulation of Nano-Enhanced Bio Phase Change Material in Buildings. *Energy Sources, Part A: Recovery, Utilization and Environmental Effects*, **2022**, Vol. 44(2), pp. 4165–4183. https://doi.org/10.1080/15567036.2021.1967517

8. Jeba Jesintha, J.J.; Subashini, K.; Jabarani, P.C.S. Cordial Labeling for New Class of Graphs. *South East Asian Journal of Mathematics and Mathematical Sciences*, **2021**, Vol. 17(3), pp. 373–380.

9. Manickam, R.; Jagan, R.; Jagadeesan, G.; Srinivasan, G. Crystal structure determination, molecular modeling and surface analysis studies of 2-(4,6-dihydropyren-3-yl)-1H-benzodimidazole. *Indian Journal of Chemistry – Section B*, **2021**, Vol. 60B(12), pp. 1652–1658.

10. Muruganandam, S.; Renjit, J.A. Real-time reliable clustering and secure transmission scheme for QoS development in MANET. *Peer-to-Peer Networking and Applications*, **2021**, Vol. 14(6), pp. 3502–3517. https://doi.org/10.1007/s12083-021-01175-6

11. Satish Kumar, S.S.; Sasi Kumar, M. Intelligent hybrid technique for cascaded multilevel inverter based three phase grid-tie hybrid power system: a WPSNN technique. *Journal of Ambient Intelligence and Humanized Computing*, **2021**, Vol. 12(10), pp. 9637–9666. https://doi.org/10.1007/s12652-020-02707-3

12. Cloudin, C.; Palanichamy, M.K.; Jerald, A.R. Performance evaluation on the node mobility with respect to human driver behavior prediction in vehicular ad hoc network using adaptive deer hunting optimized link state routing protocol. *International Journal of Communication Systems*, **2021**, Vol. 34(14), e4896. https://doi.org/10.1002/dac.4896

13. Premnath, S.P.; Renjit, J.A. Image restoration model using Jaya-Bat optimization-enabled noise prediction map. *IET Image Processing*, **2021**, Vol. 15(9), pp. 1926–1939. https://doi.org/10.1049/ipr2.12162

14. Rao, A.S.; Krishna, B.V.; Saravanan, D.; David, D.; Rama Devi, O.R.; Asokan, A.; Stalin David, D.S. Supervision calamity of public opinion actions based on field programmable gate array and machine learning. *International Journal of Nonlinear Analysis and Applications*, **2021**, Vol. 12(2), pp. 1187–1198. https://doi.org/10.22075/ijnaa.2021.5195

15. Kulandaivel, K.; Rahamathullah, R.; Paramasivam, S.A.; Kaliyaperumal, G.; Dillikannan, D. Emission profiling of a common rail direct injection diesel engine fueled with hydrocarbon fuel extracted from waste high density polyethylene. *Energy and Environment*, **2021**, Vol. 32(3), pp. 481–505. https://doi.org/10.1177/0958305X20942873

16. Bharathi, K.; Sasi Kumar, M. Power flow control based on bidirectional converter for hybrid power generation system using microcontroller. *Microprocessors and Microsystems*, **2021**, Vol. 82, 103950. https://doi.org/10.1016/j.micpro.2021.103950

17. Manickam, R.; Jagadeesan, G.; Srinivasan, G. Synthesis, crystal structure, density functional theory, Hirshfeld surface analysis and molecular docking studies of thiophene derivatives. *Indian Journal of Chemistry – Section B*, **2021**, Vol. 60B(3), pp. 439–445.

18. Vijayaraman, V.; Jesu, P. Design of embedded data analyzer based mitigation model for traffic congestion and its challenges. *Microprocessors and Microsystems*, **2021**, Vol. 81, 103633. https://doi.org/10.1016/j.micpro.2020.103633

19. Selvam, S.; Renjit, J.A. On developing dynamic and efficient cryptosystem for safeguarding healthcare data in public clouds. *Journal of Ambient Intelligence and Humanized Computing*, **2021**, Vol. 12(3), pp. 3353–3361. https://doi.org/10.1007/s12652-020-02033-8

20. Hemavathi, S.; Jayasakthi Velmurugan, K.J. Skin Disease Prediction and Provision of Medical Advice Using Deep Learning. *Journal of Physics: Conference Series*, **2021**, Vol. 1724, 012048. https://doi.org/10.1088/1742-6596/1724/1/012048

21. Sumabindu, M.L.; Savio, F.; Sasi Kumar, M. Design and modelling of a solar interfaced high voltage gain intelligent controller coupled inductor switched capacitor DC–DC converter. *IEEE Conference Proceedings*, **2021**, pp. 217–224. https://doi.org/10.1109/ICEES51510.2021.9383704

22. Bhaskar, N.; Mohan Kumar, M.; Renjit, J.A. Evolutionary fuzzy-based gravitational search algorithm for query optimization in crowdsourcing systems. *Computational Intelligence*, **2021**, Vol. 37(1), pp. 2–20. https://doi.org/10.1111/coin.12382

23. Premnath, S.P.; Arokia Renjith, J.; Ananth, J.P. Image noise removal using optimal deep learning-based noisy pixel identification and image enhancement. *Imaging Science Journal*, **2021**, Vol. 69, pp. 190–206. https://doi.org/10.1080/13682199.2022.2155359

24. Lanitha, B.; Azath, H.; David, D.; et al. BoT-IoT based denial of service detection with deep learning. *IEEE Conference Proceedings*, **2021**, pp. 221–225. https://doi.org/10.1109/I-SMAC52330.2021.9640789

25. Panda, P.; Jebastine, J.; Ramarao, M.; et al. Exploration on mechanical behaviours of hybrid composites for electronic applications. *Advances in Materials Science and Engineering*, **2021**, Article ID 4933450. https://doi.org/10.1155/2021/4933450

26. Satish Kumar, S.S.; Sasi Kumar, M.; Kumari, K.S.K. A novel optimized eleven level hybrid cascaded multilevel inverter. *IEEE Conference Proceedings*, **2021**, pp. 852–859.

27. Suseendran, G.; Chandrasekaran, E.; Pal, S.; et al. Comparison of multidimensional hyperspectral image mosaic methods. *Lecture Notes in Networks and Systems*, **2021**, Vol. 248, pp. 201–212. https://doi.org/10.1007/978-981-16-3153-5_23

28. Nithisha, J.; Jesu, P. A secured data storage mechanism using Bayes theorem and matrix for effective data communication in cloud. *Journal of Internet Technology*, **2021**, Vol. 22(4), pp. 843–854. https://doi.org/10.53106/160792642021072204012

29. George Fernandez, I.; Arokia Renjith, J. A novel approach on auto-scaling for resource scheduling using AWS. *Lecture Notes in Electrical Engineering*, **2021**, Vol. 355, pp. 99–109. https://doi.org/10.1007/978-981-16-1244-2_8

30. Pugalenthi, R.; Sangeetha Francelin Vinnarasi, F.S.F.; et al. Latent dactyloscopy pairing using EPITOME feedback. *International Journal of Bio-Inspired Computation*, **2021**, Vol. 17(2), pp. 85–94. https://doi.org/10.1504/IJBIC.2021.114087

31. Illavarason, P.; Arokia Renjit, J. Cerebral palsy rehabilitation using visual stimulation method. *International Journal of Biomedical Engineering and Technology*, **2021**, Vol. 35(2), pp. 111–134. https://doi.org/10.1504/IJBET.2021.113328

32. Surekha, R.; Narmatha, S.; Thilagavathy, S.R.; et al. Third order nonlinear optical and electrical properties of D-Alanine bulk crystals. *Optical Materials*, **2021**, Vol. 111, 110646. https://doi.org/10.1016/j.optmat.2020.110646

33. Premnath, S.P.; Arokia Renjith, J. Image denoising using various image enhancement techniques. *Advances in Intelligent Systems and Computing*, **2021**, Vol. 1172, pp. 179–191. https://doi.org/10.1007/978-981-15-5566-4_16

34. Shanmugam, R.; Dillikannan, D.; Kaliyaperumal, G.; et al. Effects of 1-decanol and EGR on diesel engine characteristics. *Energy Sources, Part A*, **2021**, Vol. 43(23), pp. 3064–3081. https://doi.org/10.1080/15567036.2020.1833112

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36. Subramanian, K.; Gnanam, A.P.S.; Dillikannan, D.; et al. Emission control in two-stroke SI engine using nano-fragment catalyst. *AIP Conference Proceedings*, **2020**, Vol. 2311, 040007. https://doi.org/10.1063/5.0034321

37. Antony Rosewelt, A.; Renjith, A. Semantic analysis-based relevant data retrieval model using CNN. *Soft Computing*, **2020**, Vol. 24(22), pp. 16983–17000. https://doi.org/10.1007/s00500-020-04990-w

38. Kulandaivel, K.; Rahamathullah, R.; Sathiyagnanam, A.P.; et al. Effect of injection timing and EGR on CRDI diesel engine. *Fuel*, **2020**, Vol. 278, 118304. https://doi.org/10.1016/j.fuel.2020.118304

39. Rajesh, R.; Kaliyaperumal, G.; De Poures, M.V.; et al. Effect of anisole addition to waste cooking oil methyl ester. *Fuel*, **2020**, Vol. 278, 118315. https://doi.org/10.1016/j.fuel.2020.118315

40. Ganesan, G.; Babu, K.; Immaculyne, L.I.; et al. Optimization of mechanical properties of hybrid composites under cryogenic conditions. *IOP Conference Series: Materials Science and Engineering*, **2020**, Vol. 923, 012045. https://doi.org/10.1088/1757-899X/923/1/012045

41. Saradha, S.; Elango, A.; Vivek, V.; et al. Acute oral toxicity study of Vipro™ polyherbal formulation. *Annals of Tropical Medicine and Public Health*, **2020**, Vol. 23(15). https://doi.org/10.36295/ASRO.2020.231520

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43. Ilamathi, K.R.; Maignana Kumar, R.; Duraivel, M.; et al. Anti-inflammatory activity of Vipro™ polyherbal formulation. *Annals of Tropical Medicine and Public Health*, **2020**, Vol. 23(15). https://doi.org/10.36295/ASRO.2020.231521

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45. Michael Mahesh, K.; Arokia Renjit, J. DeepJoint segmentation for classification of glioma tumor severity. *IET Image Processing*, **2020**, Vol. 14(11), pp. 2541–2552. https://doi.org/10.1049/iet-ipr.2018.6682

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58. Michael Mahesh, K.; Arokia Renjit, J. Multiclassifier for severity categorization of glioma tumors. *International Journal of Imaging Systems and Technology*, **2020**, Vol. 30(1), pp. 234–251. https://doi.org/10.1002/ima.22357

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