



Aditya College of Engineering & Technology

Aditya Nagar, ADB Road, Surampalem - 533437

Department of Electronics and Communication Engineering

R & D and Consultancy Activities

Academic Year 2020-2021

Research Publications (Journals)

| Sl. No. | Name of the Faculty Author | Title of the Paper | Name of the Journal | ISB N/IS SN Number | Vol/ Month | SCIE/ UGC/ Scopus | URL/DOI |
|---------|----------------------------|---|---------------------------------|--------------------|-------------------|-------------------|---|
| 1. | Dr. A B Siddique | Excitation dependence and independence of photoluminescence in carbon dots and graphene quantum dots: Insights into the mechanism of emission | Nanoscale | ISSN 2040 - 3372 | Vol 13/ September | SCIE | doi.org/10.1039/D1NR04301C |
| 2. | Dr. Vivek Rajpoot | Cross Layer Design Based Hybrid MAC protocol for Cognitive Radio Network | Physical Communication | ISSN 1874 - 4907 | Vol 50, Nov, 2021 | SCIE | https://doi.org/10.1016/j.phycom.2021.10.1524 |
| 3. | Dr. Vivek Rajpoot | Hybrid Common Control Channel based MAC Protocol with Proactive Handoff Scheme in Cognitive Radio Network | Wireless Personal Communication | ISSN 0929 - 6212 | September 2021 | SCIE | https://doi.org/10.1007/s11277-021-09092-w |
| 4. | Dr. Vivek Rajpoot | Wide Dual Band Asymmetrical I-Shape Rectangular Microstrip Patch Antenna for PCS/UMTS/WiMAX/IMT Applications | Wireless Personal Communication | ISSN 0929 - 6212 | August 2021 | SCIE | https://doi.org/10.1007/s11277-021-08962-7 |

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| 5. | Dr. Vivek Rajpoot | Filtering Antennas: A Technical Review | International Journal of RF and Microwave Computer-Aided Engineering | ISSN 1099 - 047X | Vol 31, July 2021 | SCIE | https://doi.org/10.1002/mmce.22797 |
| 6. | Dr T.S. Karthik | Orthogonal stability and Nonstability of a Generalized Quartic Functional Equation in Quasi b-Normed Spaces | Journal of Function Spaces | 2314 - 8896 | Feb, 2021 Special Issue | SCIE | doi.org/10.1155/2021/5577833 |
| 7. | Dr R.V.V. Krishna | Colour image segmentation using soft rough fuzzy CMeans and Local Binary Pattern | Intelligent Automation And Soft Computing | 2326 - 005X | Vol 26/ 2020 | SCIE | https://www.techscience.com/iaac/v26n2/39943 |
| 8. | Dr T.S. Karthik | Certain classes of analytic functions connected with Q analogue of the Bessel function | Hindwai Journal of Mathematics | 2314 - 4629 | April, 2021 Special Issue | SCIE | https://www.hindawi.com/journals/jmath/2021/5587886/ |
| 9. | Dr D Kishore | Content-Based Image Retrieval System Based on Fusion of Wavelet Transform, Texture and Shape Features. | Mathematical Modelling of Engineering Problems | 2369 - 0739 | Vol 8, Feb 2021 | Scopus | https://doi.org/10.18280/mmep.080114 |
| 10. | A. Arun Kumar Gudivada | Novel optimized tree-based stack-type architecture for 2n-bit comparator at nanoscale with energy dissipation analysis | The Journal of Supercomputing | 1573 - 0484 | Vol 77, Oct 2020 | SCIE | https://link.springer.com/article/10.1007/s11227-020-03453-1 |

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| 11. | R. Anil Kumar | Performance analysis of an efficient linear constellation precoded generalized frequency division multiplexing with index modulation in 5G heterogeneous wireless network | International Journal of Communication Systems | 1074 - 5351 | Vol 34, Mar 2021 | SCIE | https://doi.org/10.1002/DAC.4732 |
| 12. | R. Anil Kumar | Performance Analysis of GFDM Modulation in Heterogeneous Network for 5G NR | Wireless Personal Communications | 0929 - 6212 | Vol 116, Sept 2020 | SCIE | https://doi.org/10.1007/s11277-020-07791-4 |
| 13. | Rama Vasantha Adiraju | An extensive survey on finger and palm vein recognition system | Materials Today: Proceedings | ISSN 2214 - 7853 | Vol.4 5 / Jan 2021 | Scopus | https://doi.org/10.1016/j.matpr.2020.08.742 |
| 14. | Rama Vasantha Adiraju | A survey on lung CT datasets and research trends | Research on Biomedical Engineering | ISSN 2446 - 4740 | Vol.3 7 / April 2021 | Scopus | https://doi.org/10.1007/s42600-021-00138-3 |
| 15. | P. Anantha Sravanthi | Road extraction using aerial images for future navigation | Materials Today: Proceedings | ISSN 2214 - 7853 | Vol 47, June, 2020 | Scopus | doi.org/10.1016/j.matpr.2021.05.537 |
| 16. | P.Ramesh Kumar | NSCT And Eigen Features Based Image Fusion | Solid State Technology | 0038 - 111X | Volume 63, Issue 5, 2020 | Scopus | https://solidstate technology.us/index.php/JSST/article/view/5907 |

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| 17. | P.Ramesh Kumar | NFC based data monitoring and medication scheduling for patients in hospitals | Materials Today: Proceedings | ISSN 2214 - 7853 | December 2020 | Scopus | https://doi.org/10.1016/j.matpr.2020.12.479 |
| 18. | V. Preethi | The Transmission of Narrowband and Wideband Data Communications via Low-Voltage Power Lines Optimization | Journal of Nuclear Energy Science & Power Generation Technology | 2325 - 9809 | Volume 10 / 2021 | Scopus | - |
| 19. | S Venkata Kiran | Thermal Management in TSV based 3D IC Integration: A Survey | Materials Today: Proceedings | 2214 - 7853 | Volume 45, 2021, | Scopus | https://doi.org/10.1016/j.matpr.2020.08.621 |
| 20. | T.S. Karthik | NFC Based Data Monitoring and Medication Scheduling for Patients in Hospitals | Materials Today Proceedings | 2214 - 7853 | Online Jan, 2021 | Scopus | doi.org/10.1016/j.matpr.2020.12.479 |
| 21. | T.S. Karthik | Implementation of Wireless home-based Automation and Safety Arrangements Using Power Electronic Switches | Materials Today Proceedings | 2214 - 7853 | Online Jan, 2021 | Scopus | doi.org/10.1016/j.matpr.2020.11.539 |
| 22. | T.S. Karthik | On-Chip Cache Memory Protection with Tag Overflow Buffers and VLSI Implementation | Materials Today Proceedings | 2214 - 7853 | Dec, 2020 | Scopus | doi.org/10.1016/j.matpr.2020.11.539 |

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| 23. | A. Arun Kumar Gudivada | A Systematic review on full adder designs in Quantum dot cellular automata | Materials Today Proceedings | 2214 - 7853 | Vol 45, Aug 2020 | Scopus | doi.org/10.1016/j.matpr.2020.08.475 |
| 24. | Venkata Kiran Sanipini | Deep Learning-based Image Super-resolution Algorithms – A Survey | International Journal of Computing and Digital Systems | 2210 - 142X | Vol 11, Aug 2021 | Scopus | https://dx.doi.org/10.12785/ijcds/110134 |
| 25. | A. Arun Kumar Gudivada | Design of Baugh-Wooley Multiplier in Quantum-dot Cellular Automata using a novel 1-bit Full Adder with Power dissipation analysis. SN Applied Sciences | SN Applied Sciences | 2523 - 3971 | Vol 2, April 2020 | Scopus | https://link.springer.com/article/10.1007/s402020-2595-5 |
| 26. | Dr R.V.V. Krishna | NSCT and eigen features based image fusion | Solid state technology | 0038 - 111X | December 2020 | Scopus | https://solidstatetechnology.us/index.php/JSST/article/view/5907 |
| 27. | Rama Vasantha Adiraju | The Transmission of Narrowband and Wideband Data Communications via Low-Voltage Power Lines Optimization | Journal of Nuclear Energy Science & Power Generation Technology | 2325 - 9809 | Volume 10 / 2021 | Scopus | |
| 28. | Gummarekula Sattibabu | Study of Delivery Drones: Scope & Challenges | Studia Rosenthaliana | ISSN NO: 1781 - 7838 | Volume 12, December 2020 | - | - |

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| 29. | Gummarekula Sattibabu | Brief review on Unmanned Aerial Vehicles and its Applications | ADALYA JOURNAL | ISSN NO: 1301 - 2746 | Volume 9, Issue 12, December 2020 | - | https://doi.org/10.37896/aj9.12/008 |
| 30. | Sneha M Joseph | Physical Unclonable Function: A Succinct Study | ADALYA JOURNAL | ISSN NO: 1301 - 2746 | September 2020 | UGC | https://doi.org/10.37896/aj9.9/011 |
| 31. | P Swarnalatha | The Transmission of Narrowband and Wideband Data Communications via Low-Voltage Power Lines Optimization | Journal of Nuclear Energy Science & Power Generation Technology | 2325 - 9809 | Volume 10 / 2021 | Scopus | = |
| 32. | K. Parvateesam | Design and Implementation of Wireless Blended Astute Drone Drifter with VR Technology for Smart Cities | International Journal of Advanced Research in Electrical, Electronics and Instrumentation Engineering (IJAREEIE) | 2278 - 8875 | Volume 9, October 2020 | UGC | http://www.ijareeie.com/upload/2020/october/4_KP_DRONE_NC_NEW.pdf |
| 33. | B. V. Vijayasri | Speech enhancement using modified wiener filter based MMSE and speech presence probability estimation | International Journal of Informatics and Communication Technology (IJ-ICT) | 2252 - 8776 | Volume 9, Aug, 2020 | UGC | https://zenodo.org/record/4243338#.YcqTnWhBy3A |
| 34. | Dr. A B Siddique | Critical Investigation of Up-conversion and Dual Emission from Nitrogen Functionalized Graphene Quantum Dots | Elsevier: Journal of Luminescence | 0022 - 2313 | Volume 244, April 2022 | SCIE | doi.org/10.1016/j.jlumin.2022.118763 |

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| 35. | Dr. T. S. Karthik | The Transmission of Narrowband & Wideband & Data communication via Low-Voltage Power lines Optimization” | International Journal of Nuclear Energy Science & Power Generation Technology | ISSN: 2325-9809 | 10:9, 22 sept 2021 | Scopus | - |
| 36. | Dr. T. S. Karthik | Evaluate and Design the Mini-Hexagon Shaped Monopole Antenna Controller to Minimize Losses in the Unit | International Journal of Nuclear Energy Science & Power Generation Technology | ISSN: 2325-9809 | 10:9, 22 sept 2021 | Scopus | - |
| 37. | Dr. T. S. Karthik | Implementing an Effective and Secure Resource Architecture for VLSI Block Encryption | International Journal of Nuclear Energy Science & Power Generation Technology | ISSN: 2325-9809 | 10:9, 22 sept 2021 | Scopus | - |
| 38. | Dr. T. S. Karthik | Improvements in the performance of the Base station due to the use of MIMO in a Mobile Communication System | International Journal of Nuclear Energy Science & Power Generation Technology | ISSN: 2325-9809 | 10:9, 22 sept 2021 | Scopus | - |
| 39. | Dr. T. S. Karthik | Microstrip Patch Antenna for PCs & Wireless Networks | International Journal of Nuclear Energy Science & Power Generation Technology | ISSN: 2325-9809 | 10:9, 22 sept 2021 | Scopus | - |
| 40. | Dr. T. S. Karthik | Sustainable Energy Harvesting for Self-Powered Micro/Nanosystems Enabled by Nanotechnology | International Journal of Nuclear Energy Science & Power Generation Technology | ISSN: 2325-9809 | 10:9, 15 sept 2021 | Scopus | - |
| 41. | Dr. T. S. Karthik | Zero and Nonzero Mass Flux Effects of Bioconvective viscoelastic nanofluid over a 3-D Riga Surface with the swimming of gyrotactic | International Journal of Advances in Mathematical Physics, | ISSN: 1687-9139, | 16 July 2021 | SCIE | https://doi.org/10.1155/2021/9914134 |

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| 42. | Dr. T. S. Karthik | MHD Flow of Thermally Radiative Maxwell Fluid Past a Heated Stretching Sheet with Cattaneo-Christov Dual Diffusion | International Journal of Mathematics | ISSN: 2314-4785 | 23 June 2021 | SCIE | https://doi.org/10.1155/2021/5562667 |
| 43. | Dr. T. S. Karthik | A Comparative Study on Crack-Healing Ability of Al ₂ O ₃ /SiC Structural Ceramic Composites Synthesized by Microwave Sintering and Conventional Electrical Sintering | Advances in Materials Science and Engineering Journal under Processing and Applications of Advanced Functional Materials | ISSN: 1687-8442 | 22 June 2021 | SCIE | https://doi.org/10.1155/2021/3170697 |
| 44. | Dr. T. S. Karthik | Investigation on Dielectric Properties of Press Board Coated with Epoxy Resin, Quartz, and Rice Husk Ash | Advances in Materials Science and Engineering Journal under Processing and Applications of Advanced Functional Materials | ISSN: 1687-8442 | 17, June 2021 | SCIE | https://doi.org/10.1155/2021/983977042 |
| 45. | Dr. T. S. Karthik | A Brief Overview of Maximum Power Point Tracking Algorithm for Solar PV System | Journal: Materials Today, Elsevier, | ISSN: 2214-7853, | 25 Feb 2021 | Scopus | https://doi.org/10.1016/j.matpr.2021.01.220 |
| 46. | Dr. T. S. Karthik | Sentiment Analysis of Product Feedback Using Natural Language Processing | Journal: Materials Today, Elsevier | ISSN: 2214-7853 | 23 Feb 2021. | Scopus | https://doi.org/10.1016/j.matpr.2020.12.1061 |
| 47. | Dr. T. S. Karthik | Improved Learning Environment for Mathematics Course Through Blend Learning | Annals of the Romanian Society for Cell Biology Journal, Scopus | Volume-25, 1583-6258 | May 2021. | UGC | - |
| 48. | J. Srinivas Rao | Sentiment Analysis of Product Feedback Using Natural Language Processing | Journal: Materials Today, Elsevier | ISSN: 2214-7853 | 23 Feb 2021. | Scopus | https://doi.org/10.1016/j.matpr.2020.12.1061 |
| 49. | G. A. Arun Kumar | Design of area-efficient high speed 4 × 4 Wallace tree multiplier using | Journal: Materials Today, Elsevier | ISSN: 2214-7853 | Vol 45, Sept 2020 | Scopus | doi.org/10.1016/j.matpr.2020.07.67 |

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| | | quantum-dot cellular automata | | | | | 7 |
| 50. | K. Jayaram Kumar | Design of area-efficient high speed 4 × 4 Wallace tree multiplier using quantum-dot cellular automata | Journal: Materials Today, Elsevier | ISSN: 2214-7853 | Vol 45, Sept 2020 | Scopus | doi.org/10.1016/j.matpr.2020.07.677 |
| 51. | Durga Prasad Siddani | Design of area-efficient high speed 4 × 4 Wallace tree multiplier using quantum-dot cellular automata | Journal: Materials Today, Elsevier | ISSN: 2214-7853 | Vol 45, Sept 2020 | Scopus | doi.org/10.1016/j.matpr.2020.07.677 |
| 52. | G. A. Arun Kumar | Performance evaluation of noise coupling on Germanium based TSV filled material for future IC integration technique | Journal: Materials Today, Elsevier | ISSN: 2214-7853 | Vol 45, Sept 2020 | Scopus | doi.org/10.1016/j.matpr.2020.07.631 |
| 53. | G. A. Arun Kumar | A novel teeth junction less GATE all round FET for improving Electrical characteristics | Wiley: Silicon | | Jan, 2021 | SCIE | doi.org/10.1007/s12633-021-00983-y |
| 54. | A. Arun Kumar Gudivada | Review on Quantum-dot Cellular automata full adders | Journal of study of Research | 1781 - 7838 | Vol 12, Nov, 2020 | UGC | - |