

**Sona VLSIComm**  
**Department of Electronics and Communication Engineering**

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**Academic Year 2015 - 2016**

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**Journal Publications**

- [1] Shermin S., **Kashwan K. R.**, *Malicious Node Isolation Using Quality Secured Extended Finite State Machine Architecture in Wireless Sensor Networks*, IJACT: International Journal of Advancements in Computing Technology, Vol. 8, No. 2, pp. 11 ~ 21, (Scopus SNIP: 0.966), 2016 [DOI](#)
- [2] Shermin S. and **Kashwan K. R.**, *An EFSM Based Fault Detection Model for Wireless Sensor Networks*, JCIT: Journal of Convergence Information Technology, Vol. 10, No. 6, pp. 61-69, 2015, (Scopus SNIP: 1.071), 2015. [DOI](#)
- [3] Shermin S. and **Kashwan K. R.**, *Reliable and Efficient QoS Routing Using EFSM Based Design for Wireless Sensor Networks*, JNIT: Journal of Next Generation Information Technology, Vol. 7, No. 1, pp. 27-37, (Scopus SNIP: 0.970), 2016. [DOI](#)
- [4] Loganayagi T. and **Kashwan K. R.**, *A Robust Edge Preserving Bilateral Filter for Ultrasound Kidney Image*, Indian Journal of Science and Technology, Vol. 8, No. 23, pp. 1-10, (Scopus SNIP 0.987), Sep 2015, DOI: [10.17485/ijst/2015/v8i23/73052](https://doi.org/10.17485/ijst/2015/v8i23/73052)
- [5] Loganayagi T. and **Kashwan K. R.**, *An Analysis of Speckle Reduction in Ultrasound Kidney Images by Adaptive Bilateral Filter*, JDCTA: International Journal of Digital Content Technology and its Applications, Vol. 9, No. 5, pp. 1 - 10, 2015 (Scopus SNIP: 0.989), [DOI](#)
- [6] Sasirekha N. and **Kashwan K. R.**, *Improved Segmentation of MRI Brain Images by Denoising and Contrast Enhancement*, Indian Journal of Science and Technology, Vol. 8, No. 22, pp. 1-7, (Scopus SNIP 0.987), Sep 2015, DOI: [10.17485/ijst/2015/v8i22/73050](https://doi.org/10.17485/ijst/2015/v8i22/73050)
- [7] Thirumalai T., **Kashwan K R.**, *Split Ring Patch Antenna for FPGA Configurable RFID Applications*, JNIT: Journal of Next Generation Information Technology, Vol. 6, No. 3, pp. 47-58, (Scopus SNIP:0.970), 2015, [DOI](#)
- [8] Selvaraj G., **Kashwan K. R.**, *Reconfigurable Adaptive Routing Buffer Design for Scalable Power Efficient Network on Chip*, International Journal of Science and Technology, Vol. 8, No. 12, pp. 1-9, 2015, (Scopus SNIP: 1.3), DOI: [10.17485/ijst/2015/v8i12/59145](https://doi.org/10.17485/ijst/2015/v8i12/59145)
- [9] Thirumalai T., **Kashwan K. R.**, *New Reader to Reader Anti-Collision Protocol for Mobile and Dense RFID Reader Environment: A TDMA based Approach*, IJACT: International Journal of Advancements in Computing Technology, Vol. 7, No. 4, pp. 10-21, 2015, (Scopus SNIP: 0.966), [DOI](#)
- [10] Minu M. and **Kashwan K. R.**, *Automatic Voltage Regulation for Home Appliances Using Power Sensor Tag*, International Journal of Engineering Research & Technology, pp. 765-769, 2015.
- [11] Loganayagi T. and **Kashwan K. R.**, *An Efficient Edge Preserving Filter for Ultrasound Kidney Images*, International Journal of Engineering Research & Technology, pp. 205-210, 2015.
- [12] Velu C. M. and **K. R. Kashwan**, *Artificial Neural Network Based Data Mining Technique for Customer Classification for Market Forecasting*, IJACT: International Journal of Advancement in Computing

- Technology, AICIT, Korea (Rep. of), 2015, Vol. 7 No. 1, Pages: 24-32, ISSN: 2005-8039 (Print), 2233-9337 (Online), [IJACT](#), (Scopus SNIP: 0.966), [DOI](#)
- [13] Velu C. M. and **K. R. Kashwan**, *ANN Based Market Segmentation Model of Customer Mapping to Geographical Location in ICT Enabled Smart Cities*, JCIT: Journal of Convergence Information Technology, AICIT, Korea (Rep. of), 2015, Vol. 10 No. 1, Pages: 58-66, ISSN: 1975-9320 (Print), 2233-9299 (Online), [JCIT](#), (Scopus SNIP: 1.071), [DOI](#)
- [14] Thirumalai T. and **Kashwan K. R.**, *Improved Ultra Frequency Design of RFID Patch Antenna*, Advances in Natural and Applied Science, Vol. 9, No. 6, 2015, pp. 381-384, ISSN:1995-0722, (Scopus SNIP: 0.545), [DOI](#)
- [15] G. Selvaraj and **K. R. Kashwan**, *Evaluation and Analysis of Bidirectional and Unidirectional Routers for Network-On-Chip*, International Journal of Applied Engineering Research, Vol. 10 Issue No. 4, pp. 9111-9122, (SJR Impact Factor: 0.127), 2015
- [16] Ravi G. and **Kashwan K. R.**, *A New Routing Protocol for Energy Efficient Mobile Applications for Ad hoc Networks*, International Journal of Computers and Electrical Engineering, Elsevier Publisher, 2015, (Scopus SNIP: 1.673), DOI: [doi:10.1016/j.compeleceng.2015.03.023](https://doi.org/10.1016/j.compeleceng.2015.03.023)
- [17] Dattathreya K. A., **Kashwan K. R.**, *FPGA Implementation of Reconfigurable Secure Image Encoding Using Serial 2D-DWT Processor and AES Algorithm*, [JDCTA](#): International Journal of Digital Content Technology and its Applications, Vol. 9, No. 1, pp. 72 - 83, 2015 (Scopus SNIP: 0.989), [DOI](#)
- [18] Dattathreya K. A., **Kashwan K. R.**, *VLSI Implementation of 400 MHz 128-Bit Low Power Montgomery Multiplier for AES Algorithm*, JNIT: Journal of Next Generation Information Technology, Vol. 6, No. 1, pp. 10 - 20, 2015, (Scopus SNIP: 0.970), [DOI](#)
- [19] Loganayagi T and **Kashwan K. R.**, IEEE Senior Member, *An Extended Bilateral Filter for Speckle Noise Reduction in Ultrasound Kidney*, JNIT: Journal of Next Generation Information Technology, Vol. 7, No. 3, (In Press), (Scopus SNIP: 0.970), 2016. [DOI](#)
- [20] Gowrishankar J and **Kashwan K. R.**, IEEE Senior Member, *Design of Efficient Viterbi Decoder for Multicarrier System*, JCIT: Journal of Convergence Information Technology, Vol. 11, No. 4, (In Press), (Scopus SNIP: 1.071), 2016, [DOI](#)
- [21] Sasirekha N and K R Kashwan, *Gradient Based Bilateral Filtering in Wavelet Domain for Removing Rician Noise*, International Journal of Digital Content Technology and in application, Vol-10, Issue 2, March 2016, Page-61-77.
- [22] Kashwan K. R., Sasirekha N., *Super Resolution for Segmentation Algorithm to Detect Presence of Tumors in MR Images*, JCIT: Journal of Convergence Information Technology, Vol. 11, No. 2, pp. 17 ~ 26, (Scopus SNIP: 1.071), 2016, [DOI](#)
- [23] Shermin S. and Kashwan K. R., IEEE Senior Member, *Enhanced Quality of Service in Mobile Sensor Networks Using Extended Finite State Machine Model Architecture*, JDCTA: International Journal of Digital Content Technology and its Applications, Vol. 10, No. 3, pp. 73 ~ 82, (Scopus SNIP: 0.989), 2016, [DOI](#)
- [24] D. Tamil Eniyan and J. Harirajkumar, *Efficient-Fused architecture for FFT processor using Floating-Point Arithmetic*, Artificial Intelligence and evolutionary computations in Engineering Systems, PP-1029-1038, ISBN: 978-81-322-25-7, Springer India, 06 Feb 2016.
- [25] J. Harirajkumar, *Design of Vedic Multiplier Using Quantum- Dot Cellular Automata*, International Journal of Emerging Technology in Computer Science & Electronics (IJETCSE), ISSN: 0976-1353 Volume 21, Issue 4, April 2016.
- [26] Ravi G. and Kashwan K. R., *Performance Analysis Of Energy Aware Zone Routing Protocol Using Span*, International Journal of Computers and Applications, Taylor & Francis Group, ISSN: 1925-7074, Vol. 37, Issue 1, pp. 1-6, 2015, Scopus SNIP: 0.455), DOI: 10.1080/1206212X.2015.1061158.

- [27] G. Ravi and Kashwan K R *Power Efficient routing by load blancing method for mobile Ad-hoc networks*, Book chapter, Intelligent Systems Technologies and Applications, Springer, 2015 Volume 2, pages 147-157
- [28] V. Meenakshi, *Group Clock Gated Flip-Flop Array for Low Power Application*, International Journal of Computer Science and Engineering Communications April 2016, Volume 4

### **Peer Reviewed Publications in Conferences**

- [1] Ravi G. and **Kishana Ram Kashwan**, *Power Efficient Routing by Load Balancing in Mobile Ad Hoc Networks*, International Symposium on Intelligent Systems Technologies and Applications (ISTA'15), Published in Springer Series – Advances in Intelligent Systems and Computing Series, SCMS School of Engineering and Technology, Kochi, India, 10-13 Aug 2015, vol. 385, pp. 147-157, DOI: [10.1007/978-3-319-23258-4\\_14](https://doi.org/10.1007/978-3-319-23258-4_14)
- [2] **Kashwan K. R.** and Dattathreya K. A., *Improved Serial 2D-DWT Processor for Advanced Encryption Standard*, Computer Graphics, Vision and Information Security (CGVIS), 2015, IEEE International Conference on, Deptt. of CSE, KIIT, Bhubaneswar, ISBN: 978-1-4673-7437-8, pp. 1-5, Nov 2015. DOI: [10.1109/ICCVIS.2015.7322837](https://doi.org/10.1109/ICCVIS.2015.7322837)
- [3] Thirumalai and **Kashwan K. R.**, *Low Power Slotted Patch Antenna for RFID Tag Reader Applications*, Electrical, Electronics, Signals, Communication and Optimization (EESCO-2015), IEEE International Conference on, Conducted by Vignan's Institute of Information Technology, Vishakhapatnam, Issue 3, pp. 1281-1285, Jan 2015, ISBN: 978-1-4799-7678-2/15, DOI: [INSPEC: 10.1109/ICESTM.2015.7225433](https://doi.org/10.1109/ICESTM.2015.7225433)
- [4] Dhanalakshmi S. D., Jain S. K., Mishra R. and **Kashwan K. R.**, *SoC based Test Bed Design for OBC Interfaces*, Communication and Signal Processing (ICCSP), IEEE International Conference on, ISBN: 978-1-4799-8080-2, pp. 1816-1821, 2015. DOI: [10.1109/ICCSP.2015.7322837](https://doi.org/10.1109/ICCSP.2015.7322837)
- [5] Abinaya M. and **Kashwan K. R.**, *Design of Fixed-Width Booth Multiplier Using MLCP in FIR Application*, Proceedings of 25<sup>th</sup> IRF International Conference, ISBN: 978-93-85465-11-6, pp. 53-56, May 2015.
- [6] Satishkumar M. V. and **Kashwan K. R.**, *Design of CSRR loaded MIMO antenna for ISM band application*, Smart Technologies and Management for Computing, Communication, Controls, Energy and Materials (ICSTM), 2015, IEEE International Conference on, ISBN: 978-1-4799-9854-8, pp. 313-316, DOI: [10.1109/ICSTM.2015.7225433](https://doi.org/10.1109/ICSTM.2015.7225433), May 2015
- [7] Benny and **Kashwan K. R.**, *Local Interconnect Network Based Controlled Alternator Control Unit*, Proceedings of 25<sup>th</sup> IRF International Conference, Pune, India, ISBN: 978-93-85465-00-0, pp. 134-136, Apr 2015
- [8] Jeya Padmini J. and **Kashwan K. R.**, *Effective Power Utilization and Conservation in Smart Homes Using IoT*, Computation of Power, Energy Information and Communication (ICCPEIC-2015), IEEE International Conference on, ISBN: 978-1-4673-6524-6, INSPEC: 15440656, pp. 195-199, Apr 2015 DOI: [10.1109/ICCPEIC.2015.7259463](https://doi.org/10.1109/ICCPEIC.2015.7259463).
- [9] Thamarai T. and **Kashwan K. R.**, *Solar Power Embedded Based SVPWM Generator For Three Phase Inver*, Computation of Power, Energy Information and Communication (ICCPEIC-2015), IEEE International Conference on, ISBN: 978-1-4673-6524-6, pp. 502-507, Apr 2015 DOI: [10.1109/ICCPEIC.2015.7259505](https://doi.org/10.1109/ICCPEIC.2015.7259505).
- [10] Thirumalai T. and **Kashwan K. R.**, *Improved Ultra Frequency Design of RFID Patch Antenna*, Proceedings of National Conference on Intelligent Computing (NCIC - 2015), Jan 2015, Conducted by Department of CSE and IT, Pondicherry Engineering College
- [11] Senthilkumaran K and **Kashwan KR**, *Adiabatic Constant Delay Logic Style*, Innovations in Information, Embedded and Communication Systems (ICIIECS), 2015, IEEE International Conference on, ISBN: 978-1-4799-6817-6, pp. 1-5, DOI: [10.1109/ICIIECS.2015.7193025](https://doi.org/10.1109/ICIIECS.2015.7193025)
- [12] Azhagu Sadhana K. and **Kashwan K. R.**, *Design and Implementation of Printed Strip Collinear Dipole Array Antenna for C Band*, 5<sup>th</sup> IEEE and ISTE International Conference on Computation of Power

Energy, Information and Communication (ICDPIC), 20-21 Apr 2016, Organized by Adhiparasakthi Engineering College, Chennai. DOI:

- [13] Thulasi S. and **Kashwan K. R.**, *Implementation of Frequency Modulated Continuous Wave RADAR Altimeter*, 3<sup>rd</sup> IEEE International Conference on Innovation in Information Embedded and Communication Systems (ICIIECS), 17-18 Mar 2016, Organized by Karpagam College of Engineering, Coimbatore. DOI:
- [14] Abirami M. and **Kashwan K. R.**, *Ultra Wide Band Slotted Microstrip Patch Antenna For Cognitive Radio*, International Conference on Soft Computing, Intelligent Systems and Applications (ASISA), 2016, Springer Series on Advances in Intelligent Systems and Computing Series, 8-9 Apr 2016, Organized by RL Jalappa Institute of Technology, Bangalore. DOI:
- [15] Shalini R. and **Kashwan K. R.**, *4G LTE Networks-Signal Propagation with Different Equalization and Fading Techniques*, 5<sup>th</sup> IEEE International Conference on Communication and Signal Processing (ICCSP), 6-7 Apr 2016, Organized by Adhiparasakthi Engineering College, Chennai. DOI:
- [16] Sneha N. and **Kashwan K. R.**, *Design and Implementation of a Metasurface Patch Antenna Array for Medical Application*, IEEE International Conference on Research Advances in Integrated Navigation Systems (RAINS), 06-07 May 2016, Organized by R. L. Jalappa Institute of Technology, Bangalore. DOI:
- [17] Vikaram N and **Kashwan K. R.**, *Design of ISM Band RFID Reader Antenna for IOT Applications*, IEEE International Conference on Wireless Communication, Signal Processing and Networking (WisPNET), 23-25 Mar 2016, Conducted by Sivasubramaniya Nadar College of Engineering, Chennai. DOI:
- [18] Deepika S. and **Kashwan K. R.**, *Gear Assembly Fault Analysis Using Dual-Tree Complex Wavelet Transforms*, IEEE International Conference on Energy Efficient Technologies for Sustainability (ICEETS), 7-8 Apr 2016, Organized by St. Xavier's Catholic College of Engineering, Nagarcoil, Kanyakumari.
- [19] Saranya K. and **Kashwan K. R.**, *An Implementation of Low Complexity and Faster Least Mean Square Filter for Noise Cancellation Application*, International Conference on Research Advances in Integrated Navigation Systems (RAINS), 06-07 May 2016, Organized by R. L. Jalappa Institute of Technology, Bangalore. DOI:
- [20] Sanketha M. and **Kashwan K. R.**, *Implementation of Cochlear Implant for Speech Enhancement and Timbre Detection Using Fractional Delay Filter*, 5<sup>th</sup> IEEE International Conference on Recent Trends in Information Technology (ICRTIT), 8-9 Apr 2016, Madras Institute of Technology, Anna Univeristy, Chennai. DOI:
- [21] Saranya R and **Kashwan K. R.**, *Octapod Spider-Gait-Walking Robot Implementation Using Nano Processor*, Advances in Human Machine Interaction (HMI), 2016, IEEE International Conference on, ISBN: 978-1-4673-8809-2, pp. 1-4, DOI: [10.1109/HMI.2016.7449192](https://doi.org/10.1109/HMI.2016.7449192)
- [22] Suganya R. and **Kashwan K. R.**, *FPGA Implementation of Anti-Theft Traffic Management System*, Springer International Conference on Soft Computing Intelligent Systems and Applications (ASISA), 2016, Springer Series on Advances in Intelligent Systems and Computing Series, Organized by RL Jalappa Institute of Technology, Bangalore. DOI:
- [23] **Kashwan K. R.** and Thirumalai T., *TDMA Based Collision Avoidance in Dense and Mobile RFID Reader Environment: DDFS with RRE*, Microelectronics, Electromagnetics and Telecommunications (ICMEET 2015), Lecture Notes in Electrical Engineering, Springer, Vol. 372, Chapter 46, pp. 497-505, Dec 2016. DOI: [10.1007/978-81-322-2728-1\\_46](https://doi.org/10.1007/978-81-322-2728-1_46)
- [24] **N. Sasirekha**, *A Modified Low Power Architecture for Gabor Filter*, 5<sup>th</sup> IEEE International Conference 6<sup>th</sup>, 7<sup>th</sup> and 8<sup>th</sup> April 2016, Adhiparasakthi Engineering College.
- [25] **N. Sasirekha**, *High Capacity Steganography Technique Based On Wavelet Transform*, 3<sup>rd</sup> IEEE International Conference (ICIIECS'16), 17<sup>th</sup> - 18<sup>th</sup> March 2016, Karpagam College of Engineering.
- [26] **J. Harirajkumar**, *Design of Carry Propagation Adder Using Hybrid Full adder Circuit*, 3<sup>rd</sup> IEEE International Conference (ICIIECS'16), 17<sup>th</sup>-18<sup>th</sup> March 2016, Karpagam College of Engineering.

- [27] **J. Harirajkumar**, *Design and Analysis of Cyclic Redundancy Check Using Quantum Dot Cellular Automata (QCA)*, 3<sup>rd</sup> IEEE International Conference (ICIIECS'16), 17<sup>th</sup>-18<sup>th</sup> March 2016, Karpagam College of Engineering.
- [28] **J. Harirajkumar**, *Efficient Architecture Reverse Converter Design Using Han Carlson Structure with Carry Look Ahead Adder*, IEEE International Conference (WiSPNET) 23<sup>rd</sup>- 25<sup>th</sup> March 2016, SSN College of Engineering Chennai.
- [29] **J. Harirajkumar**, *Design of Vedic Multiplier Using Quantum- Dot Cellular Automata*, International Conference ICERT'2016 2<sup>nd</sup> April 2016, Sree Sastha College of Engineering ICERT'2016
- [30] **J. Harirajkumar**, *Design of 8T ROM Embedded Sram Using Double Word Line for Low Power High Speed Application*, 5<sup>th</sup> IEEE International Conference 6<sup>th</sup> , 7<sup>th</sup> and 8<sup>th</sup> April 2016, Adhiparasakthi Engineering College.
- [31] **G. Ravi**, *Implementation of Intelligent Surveillance System Using Adaptive Gamma Correction*, 3<sup>rd</sup> IEEE International Conference (ICIIECS'16), 17<sup>th</sup>-18<sup>th</sup> March 2016, Karpagam College of Engineering.
- [32] **G. Ravi**, *Efficient Automatic Irrigation System Using Zigbee*, 5<sup>th</sup> IEEE International Conference 6<sup>th</sup> , 7<sup>th</sup> and 8<sup>th</sup> April 2016, Adhiparasakthi Engineering College.
- [33] **G. Ravi**, *Earthquake early warning system by IoT using WSN*, IEEE International Conference (WiSPNET) 23<sup>rd</sup>- 25<sup>th</sup> March 2016, SSN College of Engineering Chennai.
- [34] **G. Ravi**, *Real Time Monitoring of the Open CORE Protocol For the System- On – Chip*, 3<sup>rd</sup> IEEE International Conference (ICIIECS'16), 17<sup>th</sup>-18<sup>th</sup> March 2016, Karpagam College of Engineering.
- [35] **V. Meenakshi**, *Design of High Performance Asynchronous Pipeline Using Feedthrough Logic*, 3<sup>rd</sup> International Conference 25<sup>th</sup> and 26<sup>th</sup> February 2016, Karpagam College of Engineering.
- [36] **V. Meenakshi**, *Grouped Clock Gated Flip-Flop Array for Low Power Application*, International Conference (ICGICCS'16) 10<sup>th</sup>-11<sup>th</sup> March 2016, Hindustan College of Engineering and Technology Coimbatore.
- [37] **V. Meenakshi**, *Design of Energy Efficient Zigbee Systems Using SEU Hardened Flip- Flop*, IEEE International Conference (WiSPNET) 23<sup>rd</sup>- 25<sup>th</sup> March 2016, SSN College of Engineering Chennai.
- [38] **V. Meenakshi**, *Area Efficient And Low Power Epileptic Seizure Detection Using Effective Algorithms*, 3<sup>rd</sup> IEEE International Conference (ICIIECS'16), 17<sup>th</sup>-18<sup>th</sup> March 2016, Karpagam College of Engineering.
- [39] **S. Vijayashaarathi**, *Design of Low Power High Speed Modified CAM Using SCN*, International Conference ICERT'2016 2<sup>nd</sup> April 2016, Sree Sastha College of Engineering ICERT'2016 .
- [40] **S. Vijayashaarathi**, *Smart vehicle Monitoring System for Air Pollution Detection Using WSN*, 5<sup>th</sup> IEEE International Conference 6<sup>th</sup> , 7<sup>th</sup> and 8<sup>th</sup> April 2016, Adhiparasakthi Engineering College.
- [41] **S. Vijayashaarathi**, *Efficient Monitoring System for Cardiac Patients Using Wireless sensor Network (WSN)* IEEE International Conference (WiSPNET) 23<sup>rd</sup>- 25<sup>th</sup> March 2016, SSN College of Engineering, Chennai.