Dr. Michaelraj Kingston ROBERTS,
Associate professor
Department of Electronics and Communication Engineering,
Sri Eshwar College of Engineering, Coimbatore
king.pane@gmail.com

LIST OF PUBLICATIONS

International Journals

1. **Michaelraj Kingston ROBERTS**, and P. Anguraj, "A Comparative Review of Recent Advances in Decoding Algorithms for Low-Density Parity-Check (LDPC) Codes and Their Applications," Archives of Computational Methods in Engineering (Springer), Jul. 2020, **(Impact Factor : 6.730) (ISSN: 1886-1784) (SCI-Indexed).**
2. **Michaelraj Kingston ROBERTS**, Sudha Mohanram and Shanmugasundaram 2019, 'An improved low-complex offset min-sum based decoding algorithm for LDPC codes', Mobile networks and applications (Springer), vol.24, no.6, pp.1848-1852, **(Impact Factor : 2.390) (ISSN: 1383-469X) (SCI-Indexed).**
3. **Michaelraj Kingston ROBERTS**, 2019, 'Simulation and implementation design of multi-mode decoder for Wi-MAX and WLAN applications', Measurement (Elsevier), vol.131, no.1, pp.28-34 **(Impact Factor : 2.791) (ISSN: 0263-2241) (SCI-Indexed).**
4. **Michaelraj Kingston ROBERTS** & Ramesh Jayabalan, 2016, 'An Improved Self Adaptive Min - Sum Decoding Algorithm for Flexible Low-Density Parity-Check Decoder', National Academy Science Letters (Springer), vol.40, no.2, pp.121-125 **(Impact Factor : 0.345) (ISSN: 2250-1754) (SCI-Indexed).**
5. **Michaelraj Kingston ROBERTS** & Ramesh Jayabalan, 2015, 'A Modified Optimally Quantized Offset Min-Sum Decoding Algorithm for Low Complexity LDPC Decoder', Wireless Personal Communications (Springer), vol. 80, no.2, pp. 561-570. **(Impact Factor: 0.979) (ISSN: 0929-6212) (SCI-Indexed).**
6. **Michaelraj Kingston ROBERTS** & Ramesh Jayabalan, 2015, "An improved low complex Sum-Product decoding algorithm for Low-Density Parity-Check codes", Journal of Zhejiang University Science- C (Computers & Electronics) (FITEE-Springer), vol. 16, no.6, pp. 511-518. **(Impact Factor- 0.415) (ISSN: 1869-1951) (SCI-Indexed).**
7. **Michaelraj Kingston ROBERTS** & Ramesh Jayabalan, 2015, 'A Power and Area Efficient Multi-Rate Quasi-Cyclic LDPC Decoder', Journal of Circuits, Systems and Signal Processing (Springer)**,** vol.34 , no.6, pp. 2015-2035 **(Impact Factor : 1.264) (ISSN: 0278-081X) (SCI-Indexed).**
8. **Michaelraj Kingston ROBERTS** & Ramesh Jayabalan, 2015, 'An Improved Low Complex Hybrid Weighted Bit-Flipping Algorithm for LDPC Codes', Wireless Personal Communications (Springer), vol. 82, no.1, pp. 327-339. **(Impact Factor : 0.979) (ISSN: 0929-6212) (SCI-Indexed).**
9. **Michaelraj Kingston ROBERTS** & Ramesh Jayabalan, 2014, 'An Area Efficient and High Throughput Multi-Rate Quasi-Cyclic LDPC Decoder for IEEE 802.11n Applications',

Microelectronics Journal (Elsevier), vol.45, no.11, pp. 1489-1498. **(Impact Factor : 0.924) (ISSN: 0026-2692) (SCI-Indexed).**

10. **Michaelraj Kingston ROBERTS** & Ramesh Jayabalan, 2014, 'A Modified Normalized Min-Sum Algorithm for Irregular LDPC codes', International Journal of Engineering and Technology (IJET), vol.5, no.6, pp. 4881-4893, **(ISSN: 0975-4024) (SCOPUS–Indexed).**

OTHER JOURNALS:

1. **Michaelraj Kingston ROBERTS**, Ramesh JAYABALAN & S. Finney Daniel (2013), "Performance Analysis of Steepest Descent Decoding Algorithm for LDPC Codes", International Journal on Recent Trends in Engineering & Technology, vol. 4, no 2, pp. 112-117.

INTERNATIONAL CONFERENCES

1. **Michaelraj Kingston ROBERTS** & Parthibaraj Anguraj (2018), "Performance analysis of a reduced complexity decoding algorithm based on an improved offset minsum approximation", The IEEE International Conference on Networking, Embedded and Wireless Systems (ICNEWS-2018), Bangalore, INDIA.
2. **Michaelraj Kingston ROBERTS** & Elizabeth Sunny (2017), "Investigations on performance analysis of various soft decision based LDPC decoding algorithms", The IEEE International Conference on Inventive Computing and Informatics (ICICI-2017), Coimbatore, INDIA.
3. **Michaelraj Kingston ROBERTS** & Elizabeth Sunny (2017), "An Improved Hybrid Offset Min-Sum Decoding Algorithm", The Springer Third International Conference on Information and Communication Technology for Competitive Strategies (ICTCS-2017), ACM Chapter, Udaipur, Rajastan, INDIA.
4. **Michaelraj Kingston ROBERTS** & Elizabeth Sunny (2017), "An Energy Efficient multi-rate LDPC Decoder", IEEE International (Biennial) Conference on Technological Advancements in Power and Energy (TAP-Energy 2017), Amrita University Kollam, Kerala, INDIA.
5. **Michaelraj Kingston ROBERTS** & Maria Falaq (2016), "A low complex min-sum decoding algorithm for irregular LDPC codes", The IEEE International Conference on Wireless Communications, Signal Processing and Networking (WiSPNET-2016), SSN College of Engineering, Chennai, INDIA.
6. **Michaelraj Kingston ROBERTS**, P.Ramanathan & Ramesh JAYABALAN (2015), "An improved Sum-Product algorithm for low complexity LDPC decoding", "Electrical, Instrumentation and Communication Engineering - Recent Trends and Recent Issues (ICE^2-RTRI-2015), SRI KRISHNA College of Technology, Coimbatore, INDIA.

7. **Michaelraj Kingston ROBERTS** & Ramesh JAYABALAN (2013), "A reduced complexity FFT based Sum-Product decoding algorithm for LDPC codes", International Conference on intelligent and efficient electrical systems (ICIEES'13), PSG College of Technology, Coimbatore, INDIA.
8. **Michaelraj Kingston ROBERTS** (2011), "Sloped Bit Flipping algorithm for high speed LDPC coding", 2nd International Conference on intelligent information systems and management (IISM'11), RVS College of Engineering and Technology, Coimbatore, INDIA.

NATIONAL CONFERENCES

1. **Michaelraj Kingston ROBERTS** (2016), "Combined normalized-offset min-sum decoding algorithm for irregular LDPC codes ", National Conference on Networking, Embedded and Wireless Systems (NEWS-2016), BMS College of Engineering, Bangalore, INDIA.
2. **Michaelraj Kingston ROBERTS** (2016), "A reduced complexity two-dimensional normalized min-sum decoding algorithm for irregular LDPC codes ", National Conference on Recent Trends in Information Technology (NCRTIT'16), PSG College of Technology, Coimbatore, INDIA.
3. **Michaelraj Kingston ROBERTS**, Ramesh JAYABALAN & R. Anitha (2013), "Multi Layer Perceptron Neural Network Based Decoder for LDPC codes", DRDO Sponsored 2nd National Conference on Communication Technology Interventions for Rural and Social Development, SRI KRISHNA College of Engineering and Technology, Coimbatore, INDIA.
4. **Michaelraj Kingston ROBERTS**, Ramesh JAYABALAN, S. Finney Daniel & R. Anitha (2013), " Performance Analysis of LDPC Iterative Decoding Techniques for IEEE 802.16e", National Conference on Advanced Computing and Communication Systems, Government College of Technology, Coimbatore, INDIA.
5. **Michaelraj Kingston ROBERTS**, Ramesh JAYABALAN & S. Finney Daniel (2013), "Performance Analysis of Steepest Descent Decoding Algorithm for LDPC Codes", National Conference on Advanced VLSI, Image Processing and Communication Systems, Einstein College of Engineering, Tirunelveli, INDIA. **(WON THE BEST PAPER AWARD)**
6. **Michaelraj Kingston ROBERTS**, Ramesh JAYABALAN & R. Anitha (2013), "Performance analysis of iterative decoding algorithm for LDPC codes", National Conference on VLSI, Communication and Wireless Technologies (NCVCW-2013), PSG College of Technology, Coimbatore, INDIA.
7. **Michaelraj Kingston ROBERTS**, Ramesh JAYABALAN & S. Finney Daniel (2013), "Performance analysis of bit flipping decoding algorithms for LDPC codes", National Conference

on VLSI, Communication and Wireless Technologies (NCVCW-2013), PSG College of Technology, Coimbatore, INDIA.

8. **Michaelraj Kingston ROBERTS** & Ramesh JAYABALAN (2013), "Performance analysis on effective encoding algorithms for LDPC codes", 6th National Conference on Signals, Systems and Security (NCSSS-2014), BANNARI AMMAN INSTITUTE of Technology, Coimbatore, INDIA.
9. **Michaelraj Kingston ROBERTS** & Ramesh JAYABALAN (2013), "Design and development of effective decoding algorithms for LDPC codes", 6th National Conference on Signals, Systems and Security (NCSSS-2014), BANNARI AMMAN INSTITUTE of Technology, Coimbatore, INDIA.
10. **Michaelraj Kingston ROBERTS**, Ramesh JAYABALAN & C. Deepika (2014), "Design of decoder architecture for IEEE 802.15.3c LDPC codes", National Conference on Research Challenges in Wireless Communication Systems and VLSI Design (NCWCV-2014), PSG College of Technology, Coimbatore, INDIA. **(WON THE BEST PAPER AWARD)**
11. **Michaelraj Kingston ROBERTS**, Ramesh JAYABALAN & R. Praveen Kumar (2014), "Design of decoder architecture for IEEE 802.11n LDPC codes", National Conference on Research Challenges in Wireless Communication Systems and VLSI Design (NCWCV-2014), PSG College of Technology, Coimbatore, INDIA.
12. **Michaelraj Kingston ROBERTS**, Ramesh JAYABALAN & R. Praveen Kumar (2014), "Design and development of decoder architecture for IEEE 802.11n LDPC codes", 6th National Conference on Signal Processing, Communication and VLSI Design (NCWCV-2014), ANNA UNIVERSITY Regional Centre, Coimbatore, INDIA. **(WON THE BEST PAPER AWARD)**

13. **Michaelraj Kingston ROBERTS**, Ramesh JAYABALAN & C. Deepika (2014), "Design and implementation of a decoder architecture for IEEE 802.15.3c LDPC codes", 6th National Conference on Signal Processing, Communication and VLSI Design (NCWCV-2014), ANNA UNIVERSITY Regional Centre, Coimbatore, INDIA. **(WON THE BEST PAPER AWARD)**