

Dr.R.Michaelraj Kingston

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Permanent Address

99/1, Bharathipuram, Sowripalayam,
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INDIA.

Objective

To work for an organization that promotes professional research so that I can learn and give my best for a mutually beneficial and satisfying career.

Professional Education

Course	Institution	Board / University	Year	CLASS
Ph.D	P.S.G College Of Technology, Coimbatore	Anna University	2015	Commended as best documented thesis with good publications
M.E. Communication Systems	Anna University Coimbatore	Anna University	2011	FIRST CLASS
B.E. ECE	Hindustan College of Engineering and Technology, Coimbatore	Anna University	2009	FIRST CLASS
XII th	St.Michaels Hr. Sec School, Coimbatore	State Board	2005	FIRST CLASS
X th	St.Michaels Hr. Sec School, Coimbatore	State Board	2003	FIRST CLASS

Area of Interest

1. Digital Communication
2. Error Control Coding and Information theory Coding
3. IOT, Machine learning

Awards and honours

- Ph.D thesis commended as best documented thesis with good publications.
- Received Early Carrier (**Young Scientist**) research award from SERB-DST with a research funding of Rs.16,06,000/- for the duration 2017-2020.

Work Experience

1. **Institution** : KGiSL Institute of Technology, Coimbatore-641035.
Position : Assistant Professor (ECE)
Duration : (June 2011 – December 2014)
Subjects Handled : Digital Signal processing , Digital Electronics
2. **Institution** : Sri Krishna College of Engineering and technology
Position : Assistant Professor (ECE)
Duration : (December 2014 – May 2015)
Subject Handled : Analog Communications
4. **Institution** : Dayananda Sagar College of Engineering Bangalore
Position : Assistant Professor (ECE)
Duration : (July 2015 – July 2016)
Subject Handled : Digital Signal Processing, Error Control Coding, Modern DSP.
5. **Institution** : BMS College of Engineering, Bangalore (Govt. Aided)
Position : Assistant Professor (Telecommunication Engg.)
Duration : (July 2016 – April 2018)
Subject Handled : Multimedia Communications, Error Control Coding, Cryptography & Network Security.
6. **Institution** : Sri Eshwar College of Engineering, Coimbatore
Position : Associate Professor (ECE)
Duration : (May 2018 – TILL NOW)
Subject Handled : Digital Communication, Wireless Communication
Communication Engineering.

Publications

International Journals : 11

Conferences : 21

Reviewer in SCI-Indexed (WEB OF SCIENCE) Journals

1. Reviewer of Wireless Personal Communications (**Springer Link**) (**IF: 0.979**)
2. Reviewer of ISA Transactions (**Elsevier**) (**IF: 4.343**)
3. Reviewer of PLOS ONE Journal (**IF: 3.53**)
4. Reviewer of Zhejiang University Journal –Science C (**Springer Link**) (**IF: 1.033**)
5. Reviewer of IET Computers & Digital Techniques (**IF: 0.356**)
6. Reviewer of Peer-to-Peer Networking and Applications (**Springer Link**) (**IF: 2.397**)
7. Reviewer of Digital Signal Processing (**Elsevier**) (**IF:1.256**)
8. Reviewer of IET Communications (**IF: 1.779**)
9. Reviewer of IEEE Transactions on Broadcasting (**IF:3.75**)
10. Reviewer of IEEE Access (**IF:3.244**)
11. Reviewer of IEEE Transactions on Circuits and Systems -I (**IF:3.934**)
12. Reviewer of Telecommunication Systems (**Springer Link**) (**IF: 1.707**)
13. Reviewer of IET Electronic Letters (**IF: 1.343**)
14. Reviewer of KSII Transactions (**IF 0.711**)
15. Reviewer of Measurement (**Elsevier**) (**IF: 2.791**)
16. Reviewer of IEEE Transactions on Reliability (**IF: 3.177**)
17. Reviewer of IEEE Systems Journal (**IF: 3.987**)

Research Supervisor Details

1. Anna University Recognized Supervisor. No.: 334008.

Personal Details

Father's Name	: A. ROBERTS
Date of Birth	: 27-02-1987
Gender	: Male
Marital Status	: Single
Mother Tongue	: Tamil
Languages Known	: English, Tamil

References

1. Dr.K.Gunavathi,
Professor,
ECE Department,
PSG College of Technology,
Coimbatore-641004.
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2. Dr.J.Ramesh,
Assistant Professor (Senior Grade),
ECE Department,
PSG College of Technology,
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3. Dr.P.T.Vanthi,
Associate Professor,
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PSG College of Technology,
Coimbatore-641004.
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Lab Establishment

1. Estabilshed Multimedia and Communication Laboratory.
2. Renovated Communication Systems Laboratory by procuring MATLAB through funding.

LIST OF PUBLICATIONS

International Journals

1. **Michaelraj Kingston ROBERTS**, Saru Kumari and P. Anguraj, "Certain investigations on recent advances in the design of decoding algorithms using Low-Density Parity-Check (LDPC) codes and its applications," International Journal of Communication Systems (Wiley), Jan. 2021, (**Impact Factor : 1.319**) (**ISSN: 1886-1784**) (**SCI-Indexed**).
2. **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**).
3. **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**).
4. **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**).
5. **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**).

6. **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**).
7. **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**).
8. **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**).
9. **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**).
10. **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**).
11. **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, Rajasthan, 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 (ICE²-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)**

I hereby affirm and state that all the information furnished above is true to the best of my knowledge and belief.

R. Michaelraj Kingston