

Curriculum Vitae



Associate Professor Bheema Thiagarajan Lokesh

Head, Electronics Engineering Programme
School of Science and Technology

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Education Qualifications

2009	PhD (National University of Singapore, Singapore)
2004	B.Tech (Madras Institute of Technology, Chennai, India)

Academic and Professional Experience

2019 - Present	Associate Professor & Head of Programme, Electronics Engineering, Singapore University of Social Sciences
2013 - 2019	Senior Lecturer & Head of Programme, Electronics Engineering, Singapore University of Social Sciences
2011 - 2013	Lecturer & Head of Programme, Electronics Engineering, Singapore University of Social Sciences
2008 - 2011	Research Fellow, Institute for Infocomm Research (I2R) –A*STAR, Singapore

Research & Interests

- Machine Learning, Artificial Intelligence (AI)
- Signal processing in communication systems
- Applications of Blockchain

Membership & Professional Activities

- Institute of Electrical and Electronics Engineers (IEEE), Senior Member since 2017
- Association for Computing Machinery (ACM), Member since 2017
- External Examiner for Ngee Ann Polytechnic's Diploma in Electronic & Computer Engineering programme: 2018 – Present
- Treasurer, Signal Processing Chapter, IEEE Singapore Section: 2017 – Present
- Organizing committee member for FEIAP 2011, ICIUS 2012

- Serving as reviewer for IEEE Transactions on Wireless Communications, IEEE Transactions on Vehicular Technology, IEEE Transactions on Communications, EURASIP Journal on Wireless Communication and Networking and IEEE conferences ICC, WCNC, VTC, ICCS, GLOBECOM.

Selected Publications

Peer-Reviewed Journals:

- L. B. Thiagarajan, S. Attallah, K. A. Meraim, Y.-C. Liang and H. Fu, "Non-data-aided joint carrier frequency offset and channel estimator for uplink MC-CDMA systems," IEEE Trans. Signal Process., vol. 56, no. 9, pp 4398-4408, Sep. 2008.
- L. B. Thiagarajan, Y.-C. Liang and S. Attallah, "Reconfigurable transceivers for wireless broadband access schemes, IEEE Wireless Commun. Magazine, vol. 14, no. 3, pp. 48-53, Jun. 2007.
- S. Attallah, L. B. Thiagarajan, H. Fu and Y.-C. Liang, "Joint channel and carrier offset estimation for synchronous uplink CDMA systems, IEEE Trans. Veh. Technol., vol. 56, no. 5, pp. 2769-2774, Sep. 2007.
- S. Attallah and L. B. Thiagarajan, "A comment on Blind maximum likelihood CFO estimation for OFDM systems via polynomial rooting, IEEE Signal Process. Lett., vol. 14, pp. 291-291, Apr. 2007.

US Patent:

- L. B. Thiagarajan, S. Sun, C. Yuen, Q. S. T. Quek, "Cyclic prefix schemes", US 2014/0247770 A1, 2014.

Peer-Reviewed Conferences:

- L. B. Thiagarajan and June. T, "Blockchain – An effective means for lifelong learning", accepted for oral presentation at BSERK 2018, Sydney.
- L. B. Thiagarajan and June. T, "A framework for EV charging in Singapore", in Proc. Energy Procedia, WES 2017, Singapore.
- K. C. Lim, S. Low, L. B. Thiagarajan and S. Attallah, "E-learning strategies on science and engineering education in SIM University, ICCECT, 2013.
- L. B. Thiagarajan and S. Sun, "Collision detection during initial ranging in IEEE 802.16- Compliant TDD OFDMA Systems, IEEE VTC, 2011.
- L. B. Thiagarajan, S. Sun, P. H. W. Fung and C. K. Ho, "Multiple Carrier Frequency Offset and Channel Estimation for Distributed Relay Networks, Proc. of GLOBECOM, 2010.
- L. B. Thiagarajan, S. Sun, and T. Q. S. Quek, "Joint carrier frequency offset and channel estimation in OFDM based non-regenerative wireless relay networks, Proc. IEEE ICASSP, 2009.
- L. B. Thiagarajan, S. Sun, and T. Q. S. Quek, "Carrier frequency offset and channel estimation in space-time non-regenerative two-way relay network, Proc. IEEE SPAWC, 2009.
- L. B. Thiagarajan and S. Attallah, "Uplink CP-CDMA system: Joint CFO and CIR estimation without pilots, Proc. IEEE WCNC, 2009.
- L. B. Thiagarajan, S. Attallah, Y.-C. Liang and K. A. Meraim, "Channel Identifiability for Blind Subspace-Based Channel Estimator in Uplink MC-CDMA Systems, Proc. IEEE ICC , 2008.

- L. B. Thiagarajan, Y.-C. Liang and S. Attallah, "Low Complexity Iterative Receiver for Downlink MCCDMA System in Doppler Channels, Proc. IEEE VTC , 2008.
- L. B. Thiagarajan, S. Attallah, H. Fu and Y.-C. Liang, "Non-data-aided synchronization and channel estimation for asynchronous CDMA uplink, Proc. IEEE ICC , 2007.
- L. B. Thiagarajan, S. Attallah and Y.-C. Liang, "Blind channel estimation techniques for urban areas, invited paper Proc. SONDR workshop, 2007.
- L. B. Thiagarajan, S. Attallah and Y.-C. Liang, "Two-stage frequency synchronization for uplink MCCDMA system, Proc. IEEE WCNC, 2007.
- S. Attallah, L. B. Thiagarajan, H. Fu and Y.-C. Liang, "A joint carrier offset and channel estimation method for synchronous CDMA system, Proc. IEEE ICASSP, 2006.

Lifelong Learning

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| 2018 | Workshop on "Blockchain & AI in FinTech & Insurtech: A Practical Guide to Navigating the Landscape" conducted by SUSS |
| 2018 | Completed Term 1 of Udacity's Self Driving Car Engineer Nanodegree Program |
| 2016 | Data Science Specialization, Coursera Johns Hopkins University |
| 2011 | Workshop on "Developing Sustainable Program Assessment Processes" conducted by the Accreditation Board for Engineering and Technology (ABET) |

Awards

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| 2004 - 2008 | NUS Research Scholarship |
| 2004 | Amita Scholarship |
| 2003 | C. Raja Ramasamy Memorial Endowment Book Prize |
| 2003 | R. N. Iyer EAI Prize |

Software Skills

- Programming - Python, MATLAB, R
- OS - Windows, Mac OS
- Publishing - MS Office Suite, Latex

Updated on 18 February 2019