

Mehmet Rasiit Yuce

Electrical and Computer Systems
Engineering
Monash University
Clayton Melbourne Vic 3800
Australia

Mehmet.Yuce@monash.edu
<http://www.ecse.monash.edu.au/staff/mehmety/>
Telephone: +61 3 990 53932
Fax:

EDUCATION

- 2001-2004** **Ph. D.** in Electrical Engineering
North Carolina State University (NCSU), Raleigh, NC USA.
- 1999-2001** **M. S.** in Electrical and Computer Engineering,
University of FL, Gainesville, FL USA.
- 1993-1997** **B. S.** in Electronics Engineering
Ankara University, Ankara, Turkey

PROFESSIONAL EXPERIENCE

- Jan. 2016-** **Associate Professor, ARC Future Fellow**, Monash University
- Jan. 2015- 2016** **Deputy Head**, Department of Electrical and Computer Systems Engineering,
Monash University
- 2014-2016** **Director of Research Training**, Monash University
- Jan. 2014- 2018** **Australian Research Council Future Fellow**
- July 2011-** **Senior Lecturer**, Monash University, Victoria, Australia.
- 2009-July 2011** **Senior Lecturer**, University of Newcastle, Callaghan, NSW Australia.
- 2005-2009** **Lecturer** (Equivalent to **assistant professor**), University of Newcastle,
Callaghan, NSW Australia.
- 2004-2005** **Post-Doctoral Researcher**, University of California at Santa Cruz
Santa Cruz, CA USA.
- 2001-2004** **Research Assistant**, North Carolina State University, Raleigh, NC USA.
- 1998-1999** **Satellite Communication Engineer**, Ankara, Turkey.

PROFESSIONAL INTERESTS

- Bioelectronics, wireless biotelemetry.
- IoT sensors, Wireless sensors, Energy harvesting electronics
- Wearable sensors and devices.
- Cuffless Blood Pressure Device Design
- Bio-MEMs, MEMs sensors
- Emerging technologies in wireless communications.
- Low-power IC, Analog/digital mixed signal VLSI design for wireless, biomedical, and RF applications.

HONORS&AWARDS

- The 2014 Microwave Magazine Best Paper Award of the IEEE Microwave Theory and Techniques Society (MTT-S), 2014.
- Australian Research Council Future Fellowship, 2014.
- Best performing associate editor for *IEEE Sensors Journal* in 2013, 2014 and 2015.
- Member of Monash Researcher Accelerator (MRA) program, 2013-2014.
- Award for Research Excellence in Faculty of Engineering and Built Environment, University of Newcastle, 2010.
- IEEE Senior Member, 2010.
- Paper Finalist (with student Ho Chee Keong), 31st International Conference of the IEEE Engineering in Medicine and Biology Society, 2009.
- NASA (National Aeronautics and Space Administration) group achievement award for developing SOI transceiver in support of NASA planetary robotic missions, August 2007.

COURSES TAUGHT

- ECE3161 Analog Electronics, 2019, 2020.
- Advanced Electronics Design, RF Electronics (Monash), 2014-
- Electrical Energy Systems (2012, 2013, Monash).
- Systems Engineering and Reliability Analysis (2012, 2013, Monash)
- ECE2021 Electromagnetism (2011, 2012, 2013, Monash)
- ELEC2320 Electric Circuits (Semester 1, 2010, Newcastle).
- ELEC4210-Electronics Design (2005 -2011)(Developed course)(Taught more than 10 times) As a part of the University of Newcastle program, I have been teaching this course in Singapore as well.
- ELEC3240 Electronics (2009, PSB).
- ELEC4840A/B Final Year Projects Semester 1&2 (2006, 2007, 2008, Newcastle), (2009 Singapore), (2010, Singapore).
- Computer Engineering-I (2005, Newcastle).

PROFESSIONAL MEMBERSHIPS

- Senior Member of IEEE
- IEEE Sensors Journal Member
- IEEE Solid-State Circuit Society member
- IEEE Engineering in Medicine and Biology Society
- IEEE Circuits and Systems Society

PROFESSIONAL ACTIVITIES

- **Editor-in-Chief-Sensors**
- **Topical Editor** (2015-), IEEE Sensors Journal
- **Associate Editor (2012-2015)**, IEEE Sensors Journal
- **The lead guest editor** for IEEE Journal of Biomedical and Health Informatics in 2015.
- **Associate Member** of the IEEE Engineering in Medicine and Biology (EMB) Society on Wearable Biomedical Sensors and Systems Technical Committee (2015-).

- **Technical Committee Co-Chair** of Interactive and Wearable Computing and Devices, IEEE Systems, Man, and Cybernetics Society.
- **Member of the Editorial Board**, Inter. Journal of Medical Engineering and Informatics.
- **Guest Editor (2013)**, Mobile Networks and Applications (Springer), Special Issue on “Wireless Technology for Pervasive Healthcare”.
- **Associate Editor**, Recent Patents on Electrical Engineering (2011-2014)
- **Organiser**, Workshop on Implantable wireless sensors, MIT, Cambridge USA, June 2015.
- **Associate editor**, Conference of IEEE Eng. in Medicine and Biology Society, 2014
- **A member of organizing committee**: Special session on Wireless Capsule Endoscopy at the IEEE EMBC, Chicago, USA, August 2014.
- **Member of organizing committee**: Emerging BAN technologies (IEEE ISCIT2012).
- **One of Organizers**, Workshop on Implantable wireless sensors, MIT, Cambridge USA.
- **Technical Program Committee Chair** for BodyNets, the 9th international conference on body area networks conference, London, 2014.
- **A technical committee member** of MEMS and Nanotechnology for the IEEE IES (Industrial Electronics Society), 2012- now.
- **Program/Technical Committee Member**:
 - BodyNets 2015, IEEE WPMC 2014.
 - The 2nd IEEE International Workshop on Emerging BAN Technologies (IEEE BANTECH 2014).
 - IEEE ICUWB2013, IEEE ICUWB2014, ICUWB 2015.
 - IEEE ISCIT2012, IEEE TENCON (2012)
 - International Conference on Advances in Computing, Communications and Informatics (ICACCI-2012 and 2013),
 - IEEE 1stSymposium on Wireless Systems (IDAACS- SWS, 2012),
 - First International Workshop on Wireless Mesh Networking of Human and Livestock Healthcare (2012), Smart Materials, Nano- and Micro-Technology Systems (2008),
 - IEEE ICCCN (2008,2009).
- **Session Chair**, IEEE ICUWB 2013, IEEE VTC Melbourne (Conference), 2006.
- **Reviewer** for IEEE Transactions on Biomedical Engineering, IEEE Transactions on Circuit and Systems, IEEE Transactions on Biomedical Circuits and Systems, IEEE Transactions On Wireless Communication (2005, 2006), Microelectronics Journal (2008, 2009), Journal of Medical Systems (2008), and regular reviewer for several IEEE conferences e.g. conference of IEEE Engineering in Medicine and Biology Society (IEEE EMBC), International Symposium on Circuits and Systems (ISCAS), BioCAS, ICC 2005, ICC2008, VTC (since 2004), IEEE/NLM Life Sciences Systems and Applications Workshop (2006).
- **Reviewer** for Grants from Australian Research Council (2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015). And for some international grants e.g. USA, Ireland and Hong Kong.

CURRENT/COMPLETED GRADUATE STUDENTS/SUPERVISIONS

- Chunkai Qiu
- Abdulla Mamun
- David Vera Anaya
- Fan Fu, Environmental IoT Devices and Applications
- Fahad Alsunaydih, Motion Control and Tracking of Wireless Capsule Devices
- Melika Pourebrahim, Wearable Radar and Blood Pressure Monitoring
- Serving as Co-supervisor for five other graduate students.

Completed:

- Taiyang Wu, Wearable and Implantable Sensor Systems with Energy Harvesting for IoT-connected Healthcare Applications

- Shamsul Arefin, MEMS Multisensor Microsystem with Integrated Interface Circuits for Wireless Capsule and Biomedical Applications, 2016
- Dilpreet Buxi, Sensing Technologies for Ambulatory Blood Pressure Monitoring using Pulse Transit Time (Main Supervisor), 2016
- Ali Mohammadi (Main Supervisor)- High Precision MEMS Displacement Sensors, 2014.
- Kasun Maduranga Thotahewa, Ultra Wide Band (UWB) sensor design and channel modeling for on-body and in-body communication, (Main Supervisor), May 2014.
- Michael Ho, Ultra Wideband Design Techniques for Wireless Medical Monitoring, (Principal Supervisor), 2011.
- Anthony Laskovski, Implantable Microelectronics for Biological Signals (Principal Supervisor), 2011.

GRANTS

External Competitive Grants:

- M. Majumder, *et al.*, Integrated Functional Printing Facility for Advanced Material Technologies,,**Australian Research Council (ARC) Linkage Infrastructure, Equipment and Facilities (LIEF)**, 1/01/20 → 31/12/20, \$605,000.
- **M.R. Yuce**, J-M. Redoute, K. Joe, M. Hebblewhite, Wearable Device Design with Continuous Cuff-less Blood Pressure Measurement, **ARC Linkage Project**, 2017-2020. \$435,000.
- **M. R. Yuce**, J-M, Redoute, J. Keith, M. Hebblewhite, "Connected Health," Vic. Government, Department of Economic Development, Jobs, Transport and Resources, 2017-2018, \$280,000.
- Dr. T. Alan, Dr. J-M. Redoute, **A/Prof. M. R. Yuce**, Low Observable Platform Detection (LOPD), Department of Defence Science and Technology (COMM) , 2018, \$185,00
- **M. R. Yuce**, "Autonomous body sensors in humans," **ARC Future Fellowships**, 2014-2018, \$748,320
- **M. R. Yuce**, " New Approaches for Wireless Implantable Biomedical Devices," 2007-2010, **Australian Research Council (ARC)**, Discovery Grant, \$183,000.
- R. Moheimani & **M. R. Yuce**, "Robust Control of Electrostatic Microactuators," 2007-2011, **Australian Research Council**, Discovery Grant, \$870,000.

University Grants:

- **M. R. Yuce**, "Monash Researcher Accelerator Grant (MRA)" 2013-1014, \$77,000.
- **D. Shmilovitz, M. Yuce**, Energy harvesting and supply for sensors, **AFTAM (Monash-Tel Aviv collaboration)**, 2015, 12,000.
- D. Li, W. Shen, **M. Yuce**, B. Wang, S. Wan, Development of graphene gels for energy and biomedical applications, **Monash IDR Major Grant**, 2014, 240k.
- **M. R. Yuce**, "Development of a high resolution electronic pill for medical diagnosis," Engineering Faculty Research Office, **Monash University**, 2012, \$24,400.
- **M. R. Yuce** and Eugene Nalivaiko, "Wireless Data Detection and Power Delivery Methods for Deeply Implanted/Inserted Biomedical Devices," **University of Newcastle**, 2011, \$ 25000.
- J. Khan & **M. R. Yuce**, "Underwater Communication Architecture," 2007-2010, **ATSA Defense Services Pty Ltd**, Scholarship, \$105600.
- **M.R. Yuce**, Travel Grant, **University of Newcastle**, 2007, \$1700.
- J. Khan, **M. R. Yuce**, "Power Optimisation Techniques for Wireless Sensor Networks," **University of Newcastle**, 2006, Project - Pilot Grant, \$10,000
- **M. R. Yuce**, Travel Grant, **University of Newcastle**, 2006, \$1500.

- **M. R. Yuce**, “Low-Power Wireless Communication System Designs for Biomedical Devices,” **University of Newcastle**, Project - Early Career Researcher Grant, \$15,000.

Invited Talks:

- **Wearable IoT Sensors Design**, Invited speaker, the Emerging Sensing Technologies Summit, Melbourne, 2016
- **Low power electronics design and energy harvesting techniques for the Internet of Things (IoT)**, Workshop: Next-Generation Wireless Communication Systems and Networks, Newcastle Australia, 2014.
- **Wireless body sensors: design and implementation**, one of invited speeches at IEEE MTT-S International Microwave Workshop Series on RF and Wireless Technologies for Biomedical and Healthcare Applications (IMWS-Bio 2013), Singapore, December 2013.
- **Electronics Design for M2M Communications**, the 11 th Annual, National SCADA Conference, Wednesday 30 th May, Melbourne 2012.
- **Implantable and wearable bioelectronics systems**. Technical Seminar, Institute of Microelectronics, Singapore, 12 August, 2009.
- **Implantable bioelectronics systems: can we use wideband technology?** Technical Seminar, organized by IEEE MTT/AP Chapter & Institute for Infocomm Research, Singapore, July 16, 2009.
- **Wireless technologies for wearable and implantable body area networks**, Technical Seminar, IEEE MTT/AP Chapter & Institute for Infocomm Research, Singapore, July 9, 2009.
- **“Frequency Bands and Wireless Technologies for Wearable and Implantable Wireless Body Area Networks”** 2nd Annual Unither Nanomedical & Telemedical Technology Conference, Quebec, Canada, February 2009.
- **“A Wireless Body Sensor Network System for Medical Monitoring”** University of California, Santa Cruz, USA, October 2006.

PUBLICATIONS:

Books:

- [1]. Khan, JY & **Yuce, MR**, 'Internet of Things (IoT): Systems and Applications', Pan Stanford, 2019
- [2]. K. M. S. Thotahewa, J.-M. Redoute, and **M. R. Yuce**, Ultra Wideband Wireless Body Area Networks – Springer, May 2014.
- [3]. **M. R. Yuce (ed)**, *Ultra-Wideband and 60 GHz Communications for Biomedical Applications*, Springer, ISBN 978-1-4614-8895-8, October 2013.
- [4]. **M. R. Yuce** and J. Khan, *Wireless Body Area Networks: Technology, implementation and Applications*, Pan Stanford Publishing, ISBN 978-981-431-6712, December 2011.

Book Chapters:

- [1] F. N. Alsunaydih, M.A. Ali, **M.R. Yuce**, Wireless Capsule Design, and its Locomotion and Navigation within the Body, Handbook of Biochips, M. Sawan (Ed.), Springer, 2020.
- [2] Wu, T, Redouté, JM & Yuce, M 2019, ‘A wearable, low-power, real-time ECG monitor for smart t-shirt and IoT healthcare applications’, *Internet of Things*, pp. 165-173.
- [3] Wu, F, Rüdiger, C, Redouté, JM & Rasit Yuce, M 2019, ‘A wearable multi-sensor IoT network system for environmental monitoring’, *Internet of Things*, pp. 29-38.

- [4] Y. Zhu, S. O. R. Moheimani, M. R. Yuce, A. Bazaei, Control Issues of MEMS Nanopositioning Devices (Book Chapter) Nanopositioning Technologies: Fundamentals and Applications, Springer, 2016.
- [5] Md. S. Arefin, J.-M. Redoute, and **M. R. Yuce**, Wireless biosensors for POC medical applications, in Book: Medical Biosensors for Point of Care (POC) Applications Woodhead Publishing, Elsevier, 2016.
- [6] **M. R. Yuce** and J.-M Redoute, Implanted wireless biotelemetry,” accepted for Implantable *Bioelectronics - Devices, Materials and Applications*, E. Katz (Ed.), Wiley-VCH, March 2014.
- [7] K. M. S. Thotahewa, A.I. AL-Kalbani, J.-M. Redoute, and **M. R. Yuce**, Electromagnetic effects of wireless transmission for neural implants, *Neural Computation, Neural Devices, and Neural Prosthesis*, Springer, New York, 2014.
- [8] K. M. S. Thotahewa, J.-M. Redoute, and **M. R. Yuce**, Implementation of Ultra-Wideband (UWB) Sensor Nodes for WBAN applications, *Ultra-Wideband and 60 GHz Communications for Biomedical Applications*, Springer, 2013.
- [9] K. M. S. Thotahewa, J.-M. Redoute, and **M. R. Yuce**, Medium Access Control (MAC) Protocols for Ultra-Wideband (UWB) based Wireless Body Area Networks (WBAN), *Ultra-Wideband and 60 GHz Communications for Biomedical Applications*, Springer, 2013.
- [10] **M. R. Yuce**, “Collective sensing for Healthcare,” Book: *Autonomous Sensor Networks: Collective Sensing Strategies for Analytical Purposes*, Springer, January 2013, ISBN 978-3-642-34647-7.
- [11] A. N. Laskovski and **M. R. Yuce**. Power Amplifiers for Electronic Bio-Implants. *Biomedical Engineering, Trends in Electronics, Communications and Software*, Book edited by: Anthony N. Laskovski, ISBN: 978-953-307-475-7, Publisher: InTech, Publishing date: January 2011.
- [12] **M. R. Yuce** and J. Khan, Introduction to Wireless Body Area Networks, *Wireless Body Area Networks: Technology, implementation and Applications*, 2011.
- [13] **M. R. Yuce**, Hardware Development and Systems for Wireless body Area Networks, *Wireless Body Area Networks: Technology, implementation and Applications*, Pan Stanford Publishing, in 2011.
- [14] **M. R. Yuce** and Ho Chee Keong, Ultra Wideband for Wireless Body Area Networks, *Wireless Body Area Networks: Technology, implementation and Applications*, Pan Stanford Publishing, 2011.
- [15] **M. R. Yuce**, Wireless Technologies: Potential Use in Emergencies and Disaster, book chapter in *Telemedicine for Trauma and Disaster Management* (Ed. Prof. Dr. Rifat Latifi). Artech House Publishers, 2010.
- [16] V. Chenniapan, S. O. R. Moheimani, and **M. R. Yuce**. A pendulum-like structure for design of oscillators. In S. Teo, L. H. Li, and B. Tarik, editors, *NEMS/MEMS Technology and Devices*, volume 74 of *Advanced Materials Research*, pages 207–210. Trans Tech Publications, 2009.
- [17] J. Y. Khan and **M. R. Yuce**, Wireless Body Area Network (WBAN) for medical applications, in *New Developments in Biomedical Engineering*, published by IN-TECH, ISBN 978-953-7619-57-2, pp. 591-627, published January 2010.
- [18] **M. R. Yuce**, T. Dissanayake, and Ho Chee Keong, Wideband technology for medical detection and monitoring, Book: *Recent Advances in Biomedical Engineering*, IN-TECH, ISBN 978-953-307-004-9, pp. 335-360, published October 2009.
- [19] A. Laskovski, T. Dissanayake and **M. R. Yuce**, Wireless power technology for biomedical implants, *Biomedical Engineering*, by IN-TECH, ISBN 978-953-307-013-1, pp. 119-132, published October 2009.

Journals:

- [1]. D.V. Anaya, T. He, C. Lee and M. R. Yuce, "Self-powered Eye Motion Sensor based on Triboelectric Interaction and Near-field Electrostatic Induction for Wearable Assistive Technologies," *Nano Energy*, 2020.
- [2]. T. Wu, F. Wu, C. Qiu, J.-M. Redoute and M. R. Yuce, Rigid-Flex Wearable Health Monitoring Sensor Patch for IoT-Connected Healthcare Applications, *IEEE Internet of Things Journal*, 2020.
- [3]. C. Qiu, F. Wu, C. Lee and M. R. Yuce "Self-powered control interface based on Gray code with hybrid triboelectric and photovoltaics energy harvesting for IoT smart home and access control applications," *Nano Energy*, vo. 70, 104456, April 2020.
- [4]. A. Mohammadi, S. Sadrafshari, C. Bowen, M. R. Yuce, "Time Domain Multiplexing for Efficiency Enhanced Piezoelectric Energy Harvesting in MEMS " *IEEE Electron Device Letters (EDL)*, 2020.
- [5]. F. N. Alsunaydih, Md S. Arefin, J.-M. Redoute, and M. R. Yuce, "A Navigation and Pressure Monitoring System for toward Autonomous Wireless Capsule Endoscopy, " *IEEE Sensors Journal*, 2020.
- [6]. F. Heydari, M. Pour Ebrahim, J-M. Redoute, K. Joe, K. Walker, M. R. Yuce, "A chest-based continuous cuffless blood pressure method: Estimation and evaluation using multiple body sensors, " *Information Fusion*, vol. 54, pp. 119-127, February 2020.
- [7]. C. Qiu, F. Wu, Q. Shi, C. Lee and M. R. Yuce, "Sensors and Control Interface Methods Based on Triboelectric Nanogenerator in IoT Applications," *IEEE Access*, vol. 7, pp. 92745-92757, 2019.
- [8]. M. Pour Ebrahim, F. Heydari, T. Wu, K. Walker, K. Joe, J-M. Redoute, M. R. Yuce, "Blood Pressure Estimation Using On-body Continuous Wave Radar and Photoplethysmogram in Various Posture and Exercise Conditions," *Nature Sci. Rep.* 9, 16346 (2019).
- [9]. T. He, Z. Sun, Q. Shi, M. Zhu, D.V.Anaya, M.R.Yuce, C. Lee, "Self-powered Glove-based Intuitive Interface for Diversified Control Applications in Real/Cyber Space, " *Nano Energy*, vol. 58, , Pages 641-651, April 2019.
- [10]. M. A. A. Mamun and M. R. Yuce, "Sensors and Systems for Wearable Environmental Monitoring Toward IoT-Enabled Applications: A Review," *IEEE Sensors Journal*, vol. 19, no. 18, pp. 7771-7788, 15 Sept.15, 2019.
- [11]. Q. Shia, C. Qiu, T. He, F. Wu, M. Zhu, J. A. Dziuban, R. Walczak, M. R. Yuce, C. Lee, "Triboelectric single-electrode-output control interface using patterned grid electrode, " *Nano Energy*. Vol. 60, Pages 545-556, June 2019.
- [12]. Wu, F, Wu, T & Yuce, MR, 'An Internet-of-Things (IoT) Network System for Connected Safety and Health Monitoring Applications', *Sensors*, vol. 19, no. 1, pp. 21, 2019.
- [13]. Morrison, D, Delic, D, Yuce, MR & Redoute, 'Multistage Linear Feedback Shift Register Counters With Reduced Decoding Logic in 130-nm CMOS for Large-Scale Array Applications', *IEEE Transactions on Very Large Scale Integration (VLSI) Systems*, vol. 27, no. 1, pp. 103–115, 2019.
- [14]. T. Wu, F. Wu, J-M, Redoute, and M.R. Yuce, "A Wireless Implantable Sensor Design with Subcutaneous Energy Harvesting for Long-Term IoT Healthcare Applications," *IEEE Access*, vol. 6, pp. 35801–35808, 2018.
- [15]. Kennedy, S, Yuce, MR & Redoute, J 2018, 'Fully Integrated Switched-Capacitor DC/DC Converters With Clock Slope EMI Control', *IEEE Transactions on Electromagnetic Compatibility*, vol. 60, no. 6, pp. 2073–2075.
- [16]. F. N. Alsunaydih, J. M. Redoute and M. R. Yuce, "A Locomotion Control Platform with Dynamic Electromagnetic Field for Active Capsule Endoscopy," *IEEE Journal of Translational Engineering in Health and Medicine*, 2018.

- [17]. M. S. Arefin; J. M. Redoute; M. R. Yuce, "Integration of Low-power ASIC and MEMS Sensors for Monitoring Gastrointestinal Tract using a Wireless Capsule System," *EEE Journal of Biomedical and Health Informatics*, vol. 22, no. 1, pp. 87-97, Jan. 2018.
- [18]. S. Kennedy; M. R. Yuce; J. M. Redoute, "A Low-EMI Fully Integrated Switched-Capacitor DC/DC Converter," *IEEE Transactions on Electromagnetic Compatibility*, vol. 60, no. 1, pp. 225-233, Feb. 2018.
- [19]. D. Buxi, E. Hermeling, M. Mercuri, T. Torfs, J-M, Redoute, M. R. Yuce, "Systolic Time Interval Estimation using Continuous Wave Radar with On-body Antennas," *IEEE Journal of Biomedical and Health Informatics*, vol. PP, no. 99, pp. 1-1, 2018.
- [20]. T. Wu, F. Wu, J-M, Redoute, and M.R. Yuce, "An Autonomous Wireless Body Area Network Implementation towards IoT Connected Healthcare Applications," *IEEE Access*, vol. 5, pp. 11413-11422, 2017.
- [21]. F. Wu, C. Rudiger, M. R. Yuce, "Real-time performance of a self-powered environmental IoT sensor network system," *Sensors* 2017, 17(2), 282.
- [22]. M B. Coskun, L. Qiu, Md S. Arefin, A. Neild, M. R. Yuce, Dan Li, T. Alan, "Detecting Subtle Vibrations Using Graphene-Based Cellular Elastomers," *ACS Appl. Mater. Interfaces*, 2017, 9 (13), pp 11345–11349.
- [23]. G. Matig-a, M. R. Yuce, J.-M. Redoute, "Design of a CML Transceiver with Self-Immunity to EMI in 0.18 μ m CMOS," *EEE Transactions on Circuits and Systems I: Regular*, vol. 64, no. 4, pp. 981-991, April 2017.
- [24]. R. Hamid, M.R. Yuce, "A wearable energy harvester unit using piezoelectric-electromagnetic hybrid technique," *Sensors & Actuators: A. Physical*, vol. 257, pp:198-207, April 2017.
- [25]. G. E. Matig-a, M. R. Yuce, J. M. Redoute, "Design of an EMI Self-Immune VML Transmitter in 0.18- μ m CMOS," *IEEE Transactions on Electromagnetic Compatibility*, vol. 59, no. 5, pp. 1646-1649, Oct. 2017..
- [26]. S. Kennedy, M. R. Yuce, J.-M. Redoute, "Evaluation of Conducted Emission Test Methods for Charge Pump DC/DC Converters", *IEEE Trans. on Reliability*, vol. 66, no. 1, pp. 170-177, March 2017.
- [27]. D. Buxi; J. M. Redoute; M. R. Yuce, "Blood Pressure Estimation using Pulse Transit Time from Bioimpedance and Continuous Wave Radar," *EEE Transactions on Biomedical Engineering*, vol. 64, no. 4, pp. 917-927, April 2017.
- [28]. M. P. Ebrahim, M. Sarvi, M. R. Yuce, "A Doppler Radar System for Sensing Physiological Parameters in Walking and Standing Positions," *Sensors* 2017, 17(2), 282.
- [29]. Md S. Arefin, J.-M. Redoute, and M. R. Yuce, "A Low-Power and Wide-Range MEMS Capacitive Sensors Interface IC Using Pulse-Width Modulation for Biomedical Applications," *IEEE Sensors Journal*, vol. 16, no. 17, pp. 6745-6754, Sept.1, 2016.
- [30]. A. Mohammadi, N. C. Karmakar, and M. R. Yuce, "A post-fabrication selective magnetic annealing technique in standard MEMS processes," *Applied Physics Letters*, 109, 221906 (2016).
- [31]. Md S. Arefin, J.-M. Redoute, and M. R. Yuce, "A MEMS Interface IC with low-power and wide-range frequency-to-voltage converter for biomedical applications," *IEEE Transactions on Biomedical Circuits and Systems*, vol. 10, no. 2, pp. 455-466, April 2016.
- [32]. G. Matig-A, M. R. Yuce, J-M Redoute, "An integrated LVDS transmitter-receiver system with increased self-immunity to EMI in 0.18- μ m CMOS," *IEEE Transactions on Electromagnetic Compatibility*, vol. 58, no. 1, pp. 231-240, Feb. 2016.
- [33]. K. M. Thotahewa, J-M. Redoute and M. R. Yuce "Propagation, power absorption and temperature analysis of UWB wireless capsule endoscopy devices operating in the human body," *IEEE Transactions on Microwave Theory and Techniques*, vol.63, pp. 3823-3833, Nov. 2015.

- [34]. C. C. Y. Poon, B. P. L. Lo, **M. R. Yuce**, A. Alomainy and Y. Hao, "Body Sensor Networks: In the Era of Big Data and Beyond," *IEEE Reviews in Biomedical Engineering*, vol. 8, pp. 4-16, 2015.
- [35]. **M. R. Yuce**, I. Balasingham, YK, Yoon, J. Wang, C. C. Y. Poon, "RF and communication technologies for wireless implants," *Guest Editorial in IEEE Journal of Biomedical and Health Informatics*, vol. 19, pp. 899-900, May 2015
- [36]. A. Mohammadi, S. O. R. Moheimani, **M. R. Yuce**, "Parallel Averaging for thermal noise mitigation in MEMS electrothermal displacement sensors," *IEEE Journal of Microelectromechanical Systems*, vol. 24, pp. 4-6, February 2015.
- [37]. D. Buxi, J.-M. Redoute, **M. R. Yuce**, "A survey on signals and systems in ambulatory blood pressure monitoring using pulse transit time," *IOP Physiological Measurement*. 36 R1, March 2015.
- [38]. G. Matig-A, **M. R. Yuce**, J-M Redoute, "An Integrated LVDS transmitter in 0.18um CMOS technology with high immunity to EMI," *IEEE Transactions on Electromagnetic Compatibility*, vol. 57, pp. 128-134, 2015.
- [39]. A. Aldaoud, C. Laurenson, F. Rivet, **M. R. Yuce** and J-M. Redoute, "Design of a miniaturized wireless blood pressure sensing interface using capacitive coupling," *IEEE/ASME Transactions on Mechatronics*, vol.20, pp.487-491, Feb. 2015.
- [40]. **M. R. Yuce**, G. Alici, T. D. Than "Wireless Endoscopy" *Wiley Encyclopedia of Electrical and Electronics Engineering* , 15 December 2014.
- [41]. D. Buxi, J.-M. Redoute , **M. R. Yuce** "Frequency sensing of medical signals using low-voltage piezoelectric sensors," *Sensors and Actuators: A Physical*. Volume 220, Pages 373-381, December 2014.
- [42]. K. M. Thotahewa, J-M, Redoute and **M. R. Yuce** "A Low-power, Wearable, Dual-Band Wireless Body Area Network System: Development and Experimental Evaluation" *IEEE Transactions on Microwave Theory and Techniques*, vol.62, no.11, pp.2802-2811, Nov. 2014.
- [43]. A. I. Al-Kalbani, **M. R. Yuce**, J.-M. Redoute, "A Biosafety Comparison between Capacitive and Inductive Coupling in Biomedical Implants," *IEEE Antennas and Wireless Propagation Letters* vol. 13, pp. 1168-1171, June 2014.
- [44]. Md S. Arefin, M. B. Coskun, T.Alan, J.-M. Redoute, A. Neild and **M. R. Yuce**, "A Microfabricated Fringing Field Capacitive pH Sensor with an Integrated Readout Circuit," *Applied Physics Letters* 104, 223503 (2014).
- [45]. A. Mohammadi, S. O. R. Moheimani, **M. R. Yuce**, "A comparison of two excitation modes for MEMS electrothermal displacement sensors," *IEEE Electron Device Letters (IEEE-EDL)*, vol. 35, pp. 584-586, May 2014.
- [46]. K. M. Thotahewa, J-Y. Khan, and **M. R. Yuce** "Power Efficient Ultra Wide Band Based Wireless Body Area Networks with Narrowband Feedback Path," *IEEE Transactions on Mobile Computing*, vol. 13, 1829-1842, August 2014.
- [47]. A. AL-Kalbani, **M. R. Yuce** and J.-M. Redoute, "Electromagnetic Interference in Brain Implants Using Multiple Coils: Biosafety and Data Communication Performance," *IEEE Transactions on Electromagnetic Compatibility*, vol. 56, pp. 490-493, April, 2014.
- [48]. G. Fortino, Xu Li, X. Lin, O. Mayora, E. Natalizio and **M. R. Yuce**, "Wireless Technology for Pervasive Healthcare," *Mobile Networks and Applications (Springer)*, October 2013.
- [49]. A.I. AL-Kalbani, **M. R. Yuce** and J.-M. Redoute, "Design methodology for maximum power transmission, optimal BER-SNR and data rate in biomedical implants," *IEEE Communications Letters*, 2013.
- [50]. M.B. Coskun, K.M.S. Thotahewa, Y-S. Ying, **M. R. Yuce**, A. Neild, T. Alan, "Nanoscale displacement sensing using microfabricated variable-inductance planar coils," *Applied Physics Letters [P]*, vol 103, issue 14, American Institute of Physics, pp. 1-4, 2013.

- [51]. K. M. Thotahewa, J-M, Redoute and **M. R. Yuce** "SAR, SA and temperature variation in the human head caused by IR-UWB implants operating at 4 GHz," *IEEE Transactions on Microwave Theory and Techniques*, vol. 61, Pp. 2161-2169, May 2013.
- [52]. A. N. Laskovski, **M. R. Yuce**, S. O. R. Moheimani, "FM-based piezoelectric strain voltage sensor at ultra-low frequencies with wireless capability," *Sensors & Actuators: A. Physical*, 2013.
- [53]. **M. R. Yuce** and T. Dissanayake, "Easy to swallow antenna and propagation: potential miniature antenna modules and propagation analysis of RF signals through the dense in-body environment," *IEEE Microwave Magazine*, vol. 14, pp. 74-82, June 2013.
- [54]. H. C. Keong, K. M. Thotahewa, and **M. R. Yuce**, "Transmit-only ultra wide band (UWB) body sensors and collision analysis," *IEEE Sensors Journal*, vol. 13, pp. 1949-1958, May 2013.
- [55]. A. I. AL-Kalbani, **M. R. Yuce**, J.-M. Redoute, "A study of reliable bio-telemetry, efficient powering and electromagnetic exposure in implantable neural systems", *Springer Biomedical Engineering Letters*, vol. 3, no. 1, pp. 32-38, Mar. 2013.
- [56]. A. Mohammadi, **M. R. Yuce**, S. O. R. Moheimani, "A low flicker noise MEMS electrothermal displacement sensing," *IEEE/ASME Journal of Microelectromechanical Systems*, vol. 21, pp. 1279-1281, Dec. 2012.
- [57]. T.S.P. See, T.M. Chiam, M.C.K Ho, **M.R. Yuce**, "Experimental study on the dependence of antenna type and polarization on the link reliability in on-body UWB systems," *IEEE Transactions on Antennas and Propagation*, vol. 60, pp. 5373-5380, Nov. 2012.
- [58]. **M. R. Yuce** and T. Dissanayake, "Easy-to-swallow wireless telemetry," *IEEE Microwave Magazine*, vol. 13, pp. 90-101, September-October 2012.
- [59]. A. Mohammadi, **M. R. Yuce**, S. O. R. Moheimani, "Frequency modulation technique for MEMS resistive sensing," *IEEE Sensors Journal*, vol. 12, pp. 2690-2698, August 2012.
- [60]. Ho Chee Keong, T. S. P. See, and **M. R. Yuce**, "An ultra wideband wireless body area network: evaluation in static and dynamic channel conditions," *Sensors and Actuators: A. Physical*, Volume 180, June 2012, Pages 137-147.
- [61]. Y. Zhu, S. O. R. Moheimani, **M. R. Yuce**, "A bi-directional electrothermal actuator with Z-shaped beams," *IEEE Sensors Journal*, vol. 12, pp. 2508-2509, July 2012.
- [62]. A. Bazaei, Y. Zhu, S. O. R. Moheimani, **M. R. Yuce**, "An analysis of nonlinear phenomena in a thermal micro-actuator with a built-in thermal position sensor" *IEEE Sensors Journal*, vol. 12, pp. 1772 – 1784, June 2012.
- [63]. J. Y. Khan, **M. R. Yuce**, G. Bugler, and B. Harding, "Wireless Body Area Network (WBAN) Design Techniques and Performance Evaluation," *Journal of Medical Systems (Springer)*, vol 36, pp. 1441-1457, June 2012.
- [64]. A. N. Laskovski and **M. R. Yuce**, "Class-E self-oscillation for the transmission of wireless power to implants," *Sensors and Actuators: A. Physical*, vol. 171, Issue: 2, pp. 391-397, November 2011.
- [65]. A. N. Laskovski, S. O. R. Moheimani, **M. R. Yuce**, "Piezoelectric strain voltage sensing at ultra-low frequencies," *AIP Review of Scientific Instruments*, 82, 086113 (2011).
- [66]. A. N. Laskovski and **M. R. Yuce**, "Stacked Spirals for Biosensor Telemetry," *IEEE Sensors Journal*, vol. 11, pp. 1484-1490, June 2011.
- [67]. Y. Zhu, S. O. R. Moheimani, **M. R. Yuce** "Simultaneous Capacitive and Electrothermal Position Sensing in a Micromachined Nanopositioner" *IEEE Electron Device Letters*, vol. 32, pp. 1146-1148, Aug. 2011. impact factor: 2.61.
- [68]. Y. Zhu, A. Bazaei, S. O. R. Moheimani, and **M. R. Yuce** "Design, Modeling and Control of a Micromachined Nanopositioner with Integrated Electrothermal Actuation and Sensing," *IEEE/ASME Journal of Microelectromechanical Systems*, vol. 20, page 711-719, June 2011.

- [69]. Y. Zhu, S. O. R. Moheimani, **M. R. Yuce**, "A 2-DOF MEMS ultrasonic energy harvester," *IEEE Sensors Journal*, vol 11, pp. 155-161, January 2011.
- [70]. Y. Zhu, A. Bazaei, S. O. R. Moheimani, and **M. R. Yuce**, "A Micromachined Nanopositioner with On-chip Electrothermal Actuation and Sensing," *IEEE Electron Device Letters* vol. 31, pp. 1161-1163, October 2010.
- [71]. **M. R. Yuce**, "Implementation of Wireless Body Area Networks for Healthcare Systems," *Sensors & Actuators: A. Physical* Volume 162, Issue 1, Pages 116-129, July 2010.
- [72]. Y. Zhu, S. O. R. Moheimani, and **M. R. Yuce**, "Ultrasonic energy transmission and conversion using a 2D MEMS resonator," in *IEEE Electron Device Letters*, vol. 31, Page(s): 374 – 376, April, 2010.
- [73]. T. Dissanayake, K. P. Esselle , **M. R. Yuce**, " Dielectric loaded impedance matching for wideband implanted antennas," *IEEE Transactions on Microwave Theory and Techniques*, vol. 57, Part 2, pp. 2480-2487, October 2009.
- [74]. **M. R. Yuce**, Ho Chee Keong, M. Chae, "Wideband communication for implantable and wearable systems," *IEEE Transactions on Microwave Theory and Techniques*, vol. 57, Part 2, pp. 2597-2604, October 2009.
- [75]. M. Chae, Z. Yang, **M. R. Yuce**, L. Hoang and W. Liu, "A 128-channel 6mW Wireless Neural Recording IC with Spike Feature Extraction and UWB Transmitter," *IEEE Transactions on Neural Systems & Rehabilitation Engineering*, vol. 17, pp. 312 - 321, August 2009.
- [76]. **M. R. Yuce**, "Wearable and Implantable Wireless Body Area Networks," *Recent Patents on Electrical Engineering*, vol.2, pp. 115-124, June 2009 (**Invited**).
- [77]. T. Dissanayake, **M. R. Yuce** and Ho Chee Keong, "Design and Evaluation of a Compact Antenna for Implant-to-Air UWB Communication, " the *IEEE Antennas and Wireless Propagation Letters*, vol. 8, pp.153 - 156, 2009.
- [78]. A. Tekin, **M. R. Yuce** and W. Liu, "Integrated VCOs for Medical Implant Transceivers," *VLSI Design*, 2008 1-10 (2008).
- [79]. **M. R. Yuce**, P. C. Ng, and J. Y. Khan, "Monitoring of Physiological Parameters from Multiple Patients Using Wireless Sensor Network," *Journal of Medical Systems*, vol. 32, no.5, p. 433-441, Oct. 2008.
- [80]. M. Zhou, **M. R. Yuce**, and W. Liu, "A Non-Coherent DPSK Data Receiver with Interference Cancellation for Dual-Band Transcutaneous Telemetries," *IEEE Journal of solid state circuits*, vol. 43, pp. 2203 – 2012, September 2008.
- [81]. **M. R. Yuce** and W. Liu, " Design and performance of a wideband sub-sampling front-end for multi-standard software radios," *International Journal of Electronics and Communications* (by Elsevier), vol. 62, January 2008, Pages 41-48.
- [82]. **M. R. Yuce et al.** "Wireless Body Sensor Network Using Medical Implant Band," *Journal of Medical Systems (Springer)*, vol. 31, pp. 467-474, December 2007.
- [83]. **M. R. Yuce**, W. Liu, J. Damiao, B. Bharat, P. D. Franzon and N. S. Dogan, "SOI CMOS implementation of a multirate PSK receiver for space communications " *IEEE Trans. Circuits and Systems I.*, vol. 54, pp. 420-431, 2007.
- [84]. **M. R. Yuce** and Wentai Liu, "A low-power multirate differential PSK receiver for Space applications," *IEEE Trans. on Vehicular Tech.*, vol. 54, pp.2074-2084, Nov. 2005.

Conference Papers:

- [1]. C. Qiu, T. Wu, J. Redoute and M. R. Yuce, "A Wireless Wearable Sensor Patch for the Real-Time Estimation of Continuous Beat-to-Beat Blood Pressure," 2019 41st Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC), Berlin, Germany, 2019, pp. 6842-6845.

- [2]. M. A. Al Mamun, D. Vera Anaya, J. Redoute and M. R. Yuce, " Effects of Various Factors on RSSI from Positioning Point of View with Wearables ", 13th International Conference on Sensing Technology, Sydney, December 2019.
- [3]. M. P. Ebrahim, F. Heydari, K. Walker, K. Joe, J. Redoute and M. R. Yuce, "Systolic Blood Pressure Estimation Using Wearable Radar and Photoplethysmogram Signals," 2019 IEEE International Conference on Systems, Man and Cybernetics (SMC), Bari, Italy, 2019, pp. 3878-3882.
- [4]. Ali M.A., Ebrahim M.P., Yuce M.R., " A Portable Continuous Wave Radar System to Detect Elderly Fall, " In: Mucchi L., Hamalainen M., Jayousi S., Morosi S. (eds) Body Area Networks: Smart IoT and Big Data for Intelligent Health Management. BODYNETS 2019. Lecture Notes of the Institute for Computer Sciences, Social Informatics and Telecommunications Engineering, vol 297. Springer
- [5]. Heydari F., Ebrahim M.P., Redoute JM., Yuce M.R., "Pulse Wave Characteristics Based on Age and Body Mass Index (BMI) During Sitting Posture, " In: Mucchi L., Hamalainen M., Jayousi S., Morosi S. (eds) Body Area Networks: Smart IoT and Big Data for Intelligent Health Management. BODYNETS 2019. Lecture Notes of the Institute for Computer Sciences, Social Informatics and Telecommunications Engineering, vol 297. Springer, Cham.
- [6]. F. N. Alsunaydih, M. S. Arefin, J. Redoute and M. R. Yuce, "An Automatic Navigation and Pressure Monitoring for Guided Insertion Procedure," 2019 41st Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC), Berlin, Germany, 2019, pp. 3315-3318.
- [7]. F. Wu, T. Wu and M. R. Yuce, "Design and Implementation of a Wearable Sensor Network System for IoT-Connected Safety and Health Applications," 2019 IEEE 5th World Forum on Internet of Things (WF-IoT), Ireland, 2019, pp. 87-90.
- [8]. M. A. Al Mamun, D. Vera Anaya, F. Wu, J. Redoute and M. R. Yuce, "Radio Map Building with IEEE 802.15.4 for Indoor Localization Applications," 2019 IEEE International Conference on Industrial Technology (ICIT), Melbourne, Australia, 2019, pp. 181-186.
- [9]. S. H. Daneshvar, M. Maymandi-Nejad, M. R. Yuce and J. Redoute, "A Performance Comparison Between Synchronous and Asynchronous Electrostatic Harvesters," 2019 IEEE International Conference on Industrial Technology (ICIT), Melbourne, Australia, 2019, pp. 349-354.
- [10]. C. Qiu, T. Wu, F. Heydari, J. Redoute and M. R. Yuce, "Wearable Blood Pressure Monitoring Based on Bio-Impedance and Photoplethysmography Sensors on the Arm," 2018 IEEE SENSORS, New Delhi, India, 2018, pp. 1-3.
- [11]. F. Heydari *et al.*, "Continuous Cuffless Blood Pressure Measurement Using Body Sensors," 2018 IEEE SENSORS, New Delhi, 2018, pp. 1-4.
- [12]. D. Morrison, S. Kennedy, D. Delic, M. Yuce and J. Redouté, "A Triple Integration Timing Scheme for SPAD Time of Flight Imaging Sensors in 130 nm CMOS," 2018 25th IEEE International Conference on Electronics, Circuits and Systems (ICECS), Bordeaux, France, 2018, pp. 13-16.
- [13]. S. H. Daneshvar, M. Maymandi-Nejad, M. R. Yuce and J. Redouté, "Power Efficient Optimization Procedure for Asynchronous Electrostatic Generators," 2018 25th IEEE International Conference on Electronics, Circuits and Systems (ICECS), Bordeaux, France, 2018, pp. 297-300.
- [14]. M. P. Ebrahim, F. Heydari, J. Redoute and M. R. Yuce, "Accurate Heart Rate Detection from On-Body Continuous Wave Radar Sensors Using Wavelet Transform," 2018 IEEE SENSORS, New Delhi, India, 2018, pp. 1-4.
- [15]. T. Wu, J. Redoute and M. R. Yuce, "Subcutaneous Solar Energy Harvesting for Self-Powered Wireless Implantable Sensor Systems," 2018 40th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC), Honolulu, HI, 2018, pp. 4657-4660.

- [16]. T. Wu, J. Redoute and M. R. Yuce, "A Wearable Wireless Medical Sensor Network System Towards Internet-of-Patients," *2018 IEEE SENSORS*, New Delhi, India, 2018, pp. 1-3.
- [17]. F. Wu, J. Redoute and M. R. Yuce, "A Self-Powered Wearable Body Sensor Network System for Safety Applications," *2018 IEEE SENSORS*, New Delhi, India, 2018, pp. 1-4.
- [18]. [F. Wu, C. Rudiger, J. Redoute and M. R. Yuce, "WE-Safe: A wearable IoT sensor node for safety applications via LoRa," *2018 IEEE 4th World Forum on Internet of Things (WF-IoT)*, Singapore, 2018, pp. 144-148.
- [19]. F. Wu, C. W. Tan, M. Sarvi, C. Rudiger, and M. R. Yuce, "Design and Implementation of a Low-Power Wireless Sensor Network Platform Based on XBee," in Proc. IEEE VTC Conference, Sydney, 2017.
- [20]. D. Buxi, R. Dugar, J. M. Redouté and M. R. Yuce, "Comparison of the impedance cardiogram with continuous wave radar using body-contact antennas, " *2017 39th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC)*, Seogwipo, 2017, pp. 693-696.
- [21]. T. Wu, M. S. Arefin, J. M. Redouté and M. R. Yuce, "Flexible wearable sensor nodes with solar energy harvesting, " *2017 39th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC)*, Seogwipo, 2017, pp. 3273-3276.
- [22]. A. Mohammadi, B. Choubey, M. R. Yuce and N. C. Karmakar, "An integrated magnetic programming technique for mechanical microresonators, " *2017 IEEE 12th International Conference on Nano/Micro Engineered and Molecular Systems (NEMS)*, Los Angeles, CA, 2017, pp. 485-488.
- [23]. F. N. Alsunaydih, J. M. Redoute and M. R. Yuce, "A wireless capsule endoscopy steering mechanism using magnetic field platform, " *2017 39th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC)*, Seogwipo, 2017, pp. 3036-3039.
- [24]. R. Hamid et al., " Development of a wearable plantar force measurement device for gait analysis in remote conditions," *2017 39th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC)*, Seogwipo, 2017, pp. 139-142.
- [25]. C. Laurenson, M. R. Yuce and J. M. Redouté, " A sub 125 nW sub-threshold analog adaptive sampler in 180 nm CMOS," *2017 39th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC)*, Seogwipo, 2017, pp. 722-725.
- [26]. D. Buxi, J. M. Redoute and M. R. Yuce, "Systolic time interval estimation at the sternum using continuous wave radar with body-contact antennas," *2017 IEEE 14th International Conference on Wearable and Implantable Body Sensor Networks (BSN)*, Eindhoven, Netherlands, 2017, pp. 87-90.
- [27]. F. N. Alsunaydih, J. M. Redoute and M. R. Yuce, "Improving resolution of robotic capsule locomotion using dynamic electromagnetic field," *2016 38th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC)*, Orlando, FL, 2016, pp. 219-222.
- [28]. T. Wu, M. S. Arefin, J. M. Redoute and M. R. Yuce, "A Solar Energy Harvester with an Improved MPPT Circuit for Wearable IoT Applications, " *International Conference on Body Area Networks (BodyNets 2016)* 2016.
- [29]. R.A. Alsheh hi, M. S. Arefin, T. Wu and M.R. yuce, "Optimum Thermoelectric Energy Harvesting for Wearable System Applications," *International Conference on Body Area Networks (BodyNets 2016)* 2016.
- [30]. M. S. Arefin, J. M. Redoute and M. R. Yuce, "Meandered conformai antenna for ISM-band ingestible capsule communication systems," *2016 38th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC)*, Orlando, FL, 2016, pp. 3031-3034.
- [31]. C. Laurenson, F. Rivet, M. R. Yuce and J. M. Redoute, "A 180 nm CMOS analog adaptive sampler for blood pressure feature extraction," *2016 38th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC)*, Orlando, FL, 2016, pp. 4841-4844.

- [32]. T. Wu, M. S. Arefin, D. Shmilovitz, J. M. Redoute and M. R. Yuce, "A flexible and wearable energy harvester with an efficient and fast-converging analog MPPT," *2016 IEEE Biomedical Circuits and Systems Conference (BioCAS)*, Shanghai, 2016, pp. 336-339.
- [33]. G. Matig-a, M. R. Yuce and J. M. Redoute, "EMI susceptibility of high speed differential wireline communication front-ends," *2016 International Symposium on Electromagnetic Compatibility - EMC EUROPE*, Wroclaw, 2016, pp. 382-387.
- [34]. Mohammadi, A.; Redoute, J.-M.; Yuce, M.R., "Wireless power transmission for biomedical implants: The role of near-zero threshold CMOS rectifiers," in *Engineering in Medicine and Biology Society (EMBC), 2015 37th Annual International Conference of the IEEE* , vol., no., pp.5453-5456, 25-29 Aug. 2015.
- [35]. Buxi, D.; Redoute, J.-M.; Yuce, M.R., "Cuffless blood pressure estimation from the carotid pulse arrival time using continuous wave radar," in *Engineering in Medicine and Biology Society (EMBC), 2015 37th Annual International Conference of the IEEE* , vol., no., pp.5704-5707, 25-29 Aug. 2015.
- [36]. Mohammadi, A.; Redoute, J.-M.; **Yuce, M.R.**, "Low-threshold CMOS Rectifier Design for Energy Harvesting in biomedical sensors," 10th International Conference on Body Area Networks (BodyNets 2015) Sydney, September 2015.
- [37]. Md S. Arefin, J.-M. Redoute, and **M. R. Yuce** Frequency Modulation based Resistive Sensing for Wearable Galvanic Skin Response, 10th International Conference on Body Area Networks (BodyNets 2015) Sydney, September 2015.
- [38]. Laurenson, C.; Rivet, F.; **Yuce, M.R.**; Redoute, J.-M., "A 1.04 μ W wireless integrated MEMS interface in UMC 0.18 μ m CMOS," in *Engineering in Medicine and Biology Society (EMBC), 2015 37th Annual International Conference of the IEEE* , vol., no., pp.889-892, 25-29 Aug. 2015.
- [39]. Umay, I.; Fidan, B.; Yuce, M.R., "Endoscopic capsule localization with unknown signal propagation coefficients," in *Advanced Robotics (ICAR), 2015 International Conference on* , vol., no., pp.224-229, 27-31 July 2015.
- [40]. S. Kennedy, M. R. Yuce, J.-M. Redoute, An evaluation and comparison of conducted emission test methods for integrated circuits, 2015 IEEE Global Electromagnetic Compatibility Conference (GEMCCON), pp.1-5, 2015.
- [41]. K. M. Thotahewa, J.-M. Redoute and **M. R. Yuce**, " On Medical Implant Communication of IR-UWB, " *the 9th International Conference on Body Area Networks (BodyNets 2014)* London, September 29-October 1, 2014.
- [42]. K. M. Thotahewa, J.-M. Redoute and **M. R. Yuce**, " Hardware Implementation of an IR-UWB Coordinator Node for WBAN Applications," *the annual IEEE International Symposium on Personal, Indoor and Mobile Radio Communications (PIMRC)*, September 2-5, 2014.
- [43]. K. M. Thotahewa, J.-M. Redoute and **M. R. Yuce**, " A UWB Wireless Capsule Endoscopy Device, " *the 36th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC'14)*, Chicago, Illinois, USA, August 26-30, 2014.
- [44]. D. Buxi, J.-M. Redoute and **M. R. Yuce**, "A Frequency-sensing Readout using Piezoelectric sensors for sensing of physiological signals, " *the 36th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC'14)*, Chicago, Illinois, USA, August 26-30, 2014.
- [45]. Arefin, M.S.; Coskun, M.B.; Alan, T.; Neild, A.; Redoute, J.-M.; Yuce, M.R., "A MEMS capacitive pH sensor for high acidic and basic solutions," in *SENSORS, 2014 IEEE* , vol., no., pp.1792-1794, 2-5 Nov. 2014.
- [46]. Ali Mohammadi, S. O. R. Moheimani, **M. R. Yuce**, "SNR Improvement in MEMS Electrothermal Displacement Sensors, " 2014 IEEE/ASME International Conference on Advanced Intelligent Mechatronics, July 2014.
- [47]. G. Matig-a, **M. R. Yuce**, J.-M. Redoute, "An EMI Resistant Integrated LVDS Transmitter in 0.18 μ m CMOS", in *Proc. IEEE EMC Europe Conference*, Sweden, Sep. 2014

- [48]. K. M. Thotahewa, J-M. Redoute and **M. R. Yuce**, "Implementation of a dual band body sensor node, " *IEEE MTT-S International Microwave Workshop Series on RF and Wireless Technologies for Biomedical and Healthcare (IMWS-Bio2013)*, 2013.
- [49]. **M. R. Yuce**, "Recent wireless body sensors: design and implementation," *IEEE MTT-S International Microwave Workshop Series on RF and Wireless Technologies for Biomedical and Healthcare (IMWS-Bio2013)*, 2013.
- [50]. K. M. Thotahewa, J-M. Redoute and **M. R. Yuce**, "Electromagnetic power absorption of the human abdomen from IR-UWB based wireless capsule endoscopy devices," *IEEE International conference on Ultra-wideband(ICUWB2013)*, pp. 79-84, September 215-18, 2013.
- [51]. M. Islam, J.Y. Khan, **M. R. Yuce** , "A MAC protocol for implanted devices communication in the MICS band," *10th International Conference on Wearable and Implantable Body Sensor Networks (BSN)*, to appear in 2013.
- [52]. K. M. Thotahewa, J-M. Redoute and **M. R. Yuce**, "Electromagnetic and thermal effects of IR-UWB wireless implant systems on the human head, " in *Proc. the 35th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC'13)*., to appear in 2013.
- [53]. A. N. Laskovski, **M. R. Yuce**, S. O. R. Moheimani "Ultra low frequency FM sensing of piezoelectric strain voltage", *IEEE Sensors Conference*, pp. 1-4, October 2012.
- [54]. A. Mohammadi, **M. R. Yuce**, S. O. R. Moheimani, " A Readout Circuit Implementation to Reduce the Flicker Noise in MEMS Electrothermal Sensors ," in *Proc. the IEEE International Conference on Electronics, Circuits, and Systems (ICECS)*, pp. 121-124, December 2012.
- [55]. K. M. Thotahewa and **M. R. Yuce**, " Analysis of pulse based UWB transmission techniques for wireless sensors, " *IEEE International Symposium on Communications and Information Technologies (ISCIT)*, pp. 245-250, October 2012..
- [56]. **M. R. Yuce**, K. M. Silva, J-M. Redoute, Ho Chee Keong, " Development of low-power UWB body sensors," *IEEE International Symposium on Communications and Information Technologies (ISCIT)*, pp. 143-148, October 2012.
- [57]. A. Al-Kabani, **M. R. Yuce**, J-M. Redoute " Performance of a biomedical implant communication system using PWM coded ASK," *IEEE International Symposium on Communications and Information Technologies (ISCIT)*, pp. 133-138, October, 2012.
- [58]. A. Al-Kalbani, **M. R. Yuce**, J.-M. Redoute, " Safe SAR Levels in Inductively Powered Brain Implanted Visual Prostheses," *EMC Europe Conference*, pp. 1-6, September 2012.
- [59]. A. Kalbani, J-M. Redoute , and **M. R. Yuce**, "Specific absorption rate of inductively powered brain implanted circuits," to appear in *Proc. IEEE Asia-Pacific EMC-Symposium in SINGAPORE*, May 21-24, 2012.
- [60]. A. N. Laskovski and **M. R. Yuce** "MICS and ISM-band Telemetry Implants for Multi-Node Body Area Networks," to appear in *Proc. IEEE International Symposium on Applied Sciences in Biomedical and Communication Technologies (ISABEL)*, 2011.
- [61]. K. M. Silva, **M. R Yuce**, J. Y. Khan, "Multiple Access Protocol for UWB Wireless Body Area Networks (WBANs) with Narrowband Feedback Path," to appear in *Proc. IEEE International Symposium on Applied Sciences in Biomedical and Communication Technologies (ISABEL)*, 2011.
- [62]. K. M. Silva, **M. R Yuce**, J. Y. Khan, " Network Topologies for dual band (UWB - transmit and Narrow Band- receive) Wireless Body Area Network," in the *Proc. ACM/IEEE Body Area Networks (BodyNets)*, 7-8 November 2011.
- [63]. K. M. Silva, **M. R. Yuce** and Ho Chee Keong, "An Ultra Wide Band (UWB) based sensor network for medical monitoring," *2nd International Conference on Medical Bionics*, 20-23 November, Melbourne Australia, 2011.

- [64]. A. Mohammadi, **M. R. Yuce**, S. O. R. Moheimani, "Dealing with $1/f$ noise in MEMS electrothermal sensing," *Proc. 37th Annual Conference of the IEEE Industrial Electronics Society (IECON 2011)* - Nov.7-10 2011.
- [65]. A. Laskovski and M. R. Yuce, "A MICS Telemetry Implant Powered by a 27MHz ISM Inductive Link," *the international Conference of the IEEE Engineering in Medicine and Biology Society*, 2011.
- [66]. Ho Chee Keong and M. R. Yuce, "UWB-WBAN sensor node design," the international Conference of the IEEE Engineering in Medicine and Biology Society, 2011
- [67]. Y. Zhu, A. Bazaei, S. O. R. Moheimani, and **M. R. Yuce**, "Design, Prototyping, Modeling and Control of a MEMS Nanopositioning Stage," the 2011 American Control Conference (ACC'11), to be held in San Francisco, CA, USA, June 29-July 01, 2011.
- [68]. A. Laskovski and **M. R. Yuce** , "Class-E Oscillators as Wireless Power Transmitters for Biomedical Implants," *the 3rd International Symposium on Applied Sciences in Biomedical and Communication Technologies (IEEE ISABEL Conference)*, Rome Italy, November, 2010.
- [69]. T. S. P. See, T. M. Chiam, C.K.Ho, **M. R. Yuce** "Experimental Study of Optimal UWB Antenna Location for ECG Application," to appear in the *IEEE International conference on Ultra-wideband(ICUWB2010)*, September 20-23, 2010.
- [70]. L. Ji, Y. Zhu, S. O. R. Moheimani, **M. R. Yuce** "A Micromachined 2-DOF Nanopositioner with Integrated Capacitive Displacement Sensor" in the IEEE Sensors 2010 Conference, pp:1464-1467, 1-4 Nov. 2010.
- [71]. Yong Zhu, S. O. R. Moheimani, **M. R. Yuce** "A MEMS Nanopositioner with Thermal Actuator and on-Chip Thermal Sensor," in the IEEE Sensors 2010 Conference, pp.296-299, 1-4 Nov. 2010.
- [72]. Ho Chee Keong and **M. R. Yuce**, "Evaluation of UWB receiver position for Wireless Body Area Network," to appear in the *IEEE International conference on Ultra-wideband(ICUWB2010)*, September 20-23, 2010.
- [73]. J. Y. Khan, **M. R. Yuce**, B. Harding "Battery life cycle and transmission power profile analysis of a wireless body area network with implanted nodes," in *the 4th International Symposium on Medical Information and Communication Technology*, March 22 - 25, Taipei Taiwan, 2010.
- [74]. A. Laskovski, **M. R. Yuce** , and T. Dissanayake, "Stacked spirals for use in biomedical implants," in *IEEE Asia-Pacific Microwave Conference (APMC 2009)*, Page(s):389 – 392, December 2009, Singapore.
- [75]. Ho Chee Keong and **M. R. Yuce**, "Transmit only UWB wireless body area network for medical applications," *IEEE Asia-Pacific Microwave Conference (APMC 2009)* Page(s): 2200 – 2203, December 2009 (**invited**).
- [76]. **M. R. Yuce**, T. Dissanayake, and Ho Chee Keong, "Wireless telemetry for electronic pill technology," in *Proc. IEEE SENSORS*, pp.1433 – 1438, October 2009
- [77]. Y. Zhu, **M. R. Yuce**, S. O. R. Moheimani, "A low loss MEMS tunable capacitor with movable dielectric," in *IEEE Conference on Sensors (IEEE SENSORS 2009)*, pp. 651-654, October 2009.
- [78]. Y. Zhu, S. O. R. Moheimani, **M. R. Yuce**, "A 2-DOF wideband electrostatic transducer for energy harvesting and implantable applications," in *IEEE Conference on Sensors (IEEE SENSORS 2009)*, pp. 1542-1545, October 2009.
- [79]. Ho Chee Keong and **M. R. Yuce**, "Analysis of a multi-access scheme and asynchronous transmit-only UWB for wireless body area networks," in *the 31st Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC'09)*, pp. 6906-6909, September 2009, **student paper finalist**.
- [80]. V. Chenniapan, S. O. R. Moheimani, **M. R. Yuce**, " A pendulum-like structure for design of oscillators," *International Conference on Materials for Advanced Technologies (ICMAT 2009)*, June- July 2009.

- [81]. T. Dissanayake, **M. R. Yuce**, "UWB Antenna Impedance Matching in Biomedical Implants," in *European Conference on Antennas and Propagation (EuCAP 2009)*, pp. 3523 - 3526, March 2009.
- [82]. A. Laskovski, **M. R. Yuce**, and T. Dissanayake, "Practical considerations for high-frequency inductive links," in *SPIE Smart Materials, Nano-and Micro-Smart Systems*, December 2008.
- [83]. Ho C. K. and **M. R. Yuce**, " Low Data Rate Ultra Wideband ECG Monitoring System," in *the IEEE Engineering in Medicine and Biology Society (IEEE EMBC08)*, pp. 3413-3416, August, 2008.
- [84]. A. Laskovski, **M. R. Yuce**, 'Harmonics-based bio-implantable telemetry system', *Proceedings of the 30th Annual International Conference of the IEEE Engineering in Medicine and Biology Society*, Page(s):3196 – 3199, Vancouver, BC August 2008.
- [85]. J. Y. Khan and **M. R. Yuce**, "Performance Evaluation of a Wireless Body Area Sensor Network for Remote Patient Monitoring," in the *IEEE Engineering in Medicine and Biology Society (IEEE EMBC08)*, pp. 1266 – 1269, August, 2008.
- [86]. **M. R. Yuce**, " Implementation of Body Area Networks Based on MICS/WMTS Medical Bands for Healthcare Systems," in *the IEEE Engineering in Medicine and Biology Society (IEEE EMBC08)*, pp. 3417 – 3421, August, 2008.
- [87]. M. Chae, W. Liu, Z. Yang, T. Chen, J. Kim, M. Sivaprakasam, and **M. R. Yuce** "A 128-channel 6mW Wireless Neural Recording IC with On-the-fly Spike Sorting and UWB Transmitter," in *IEEE International Solid-State Circuits Conference (ISSCC'08)*, 3-7 Feb. 2008 Page(s):146 – 603.
- [88]. **M. R. Yuce**, P. C. Ng, C. K. Lee, J. Y. Khan, and W. Liu , "A Wireless Medical Monitoring Over a Heterogeneous Sensor Network," in *the 29th International Conference of the IEEE Engineering in Medicine and Biology Society (IEEE EMBC07)*, pp. 5894-5898, August, 2007.
- [89]. A. Laskovski and **M. R. Yuce**, "Analysis of Class-E Amplifier with Mixed Data Modulation for Biotelemetry," in *the 29th International Conference of the IEEE Engineering in Medicine and Biology Society (IEEE EMBC07)*, pp. 5679-5682, August, 2007.
- [90]. **M. R. Yuce**, W. Liu, M. S. Chae and J. S. Kim, "A wideband telemetry unit for multi-channel neural recording systems," in *IEEE International Conference on Ultra-Wideband (ICUWB)*, pp. 612-617, September 2007.
- [91]. **M. R. Yuce et al.** " A MICS wireless body sensor network" in *IEEE Wireless Communications and Networking Conference (WCNC)*, pp. 2473-2478, 2007.
- [92]. A. Tekin, **M. R. Yuce** and W. Liu, "Integrated VCO Design for MICS Transceivers," in *IEEE Custom Integrated Circuits Conference (CICC'06)*, pp. 765-768, September, 2006.
- [93]. M. Zhou, W. Liu, G. Wang, M. Sivaprakasam, **M. R. Yuce**, J. Weiland, M. Humayun, " A Transcutaneous Data Telemetry System Tolerant to Power Telemetry Interference," in *the 28th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (IEEE EMBC 2006)*, pp. 5884 – 5887, September 3, New York, USA.
- [94]. **M. R. Yuce**, A. Tekin, " Ultra Low-Power Digital Demodulators for Short Range Applications," in *IEEE Vehicular Technology Conference (VTC2006-Spring)*, pp. 2280 – 2284, May 2006.
- [95]. **M. R. Yuce**, A. Tekin and W. Liu, " Discrete time analysis of a multirate symbol timing recovery circuit for sampling receivers," in *IEEE International Conference Communications (ICC)*, pp. 3235 – 3240, June 2006.
- [96]. A. Tekin, **M. R. Yuce** and W. Liu, " A low-power FSK modulator/demodulator for an MICS band transceiver," in *Proceedings of IEEE Radio and Wireless Symp.(RWS'06)*, pp. 159-162, January, 2006.
- [97]. A. Tekin, **M. R. Yuce**, and W. Liu, "A Low power MICS band transceiver architecture for implantable devices," in *Proceedings of the IEEE Wireless and Microwave Technology*, Clearwater, Florida, USA, April 2005.

- [98]. **M. R. Yuce** and W. Liu, "Alternative wideband front-end architectures for multi-standard software radios," in *Proceedings of the IEEE Vehicular Technology Conference (VTC'04)*, pp. 1968 – 1972, Los Angeles, CA, Sept. 2004.
- [99]. **M. R. Yuce** and W. Liu, "Implementation and performance of a low-power multirate PSK receiver robust to Doppler shift," in *Proceedings of the IEEE Vehicular Technology Conference (VTC'04)*, pp. 2230 – 2235, Los Angeles, CA, Sept. 2004.
- [100]. **M. R. Yuce**, W. Liu, B. Bharat, J. Damiano, P. D. Franzon, "The performance and experimental results of a multiple bit rate symbol timing recovery circuit for PSK receivers," *Proceedings of the IEEE Custom Integrated Circuits Conference (CICC'04)*, pp. 591-594, Orlando, USA, October 2004.
- [101]. **M. R. Yuce** and W. Liu, "Design and implementation of a multirate sub-sampling front-end in Software Radio Systems," *Proceedings of the IEEE Radio and Wireless Conference (RAWCON'04)*, pp. 529-532, Atlanta, USA, Sept. 2004.
- [102]. **M. R. Yuce**, W. Liu, J. Damiano, B. Bharat, P. D. Franzon and N. S. Dogan, "A low power PSK receiver for space applications in 0.35 μ m SOI CMOS," in *Proc. of the IEEE Custom Integrated Circuits Conf. (CICC'03)*, pp. 155 – 158, San Jose, USA, Sept. 2003.
- [103]. **M. R. Yuce**, W. Liu, "Digital PSK/DPSK receivers in subsampling front-end via 1-bit A/D," in *Proceedings of the International Conference on Wireless and Optical Communications (WOC'03)*, Banff, Canada, pp. 484-489, July 2003.
- [104]. **M. R. Yuce**, W. Liu, "Reduced complexity digital satellite CDMA systems robust to Doppler," *Proceedings of the IEEE Vehicular Technology Conference (VTC'03)*, pp. 2736 – 2740, Orlando, FL, October. 2003.
- [105]. E. Zencir, **M. R. Yuce**, T. Huang, J. Marks, N. S. Dogan, W. Liu, E. Arvas, "A low-power low-IF DDPSK receiver in 0.35- μ m SOI CMOS technology," in *Proceedings of the IEEE Radio and Wireless Conference (RAWCON'03)*, Boston, USA, pp. 155-158, August 2003.
- [106]. T. H. Huang, E. Zencir, **M. R. Yuce**, N. S. Dogan, W. Liu, E. Arvas, "A 22-mW 435 MHz Silicon on Insulator CMOS high-gain LNA for subsampling receivers," in *Proceedings of the IEEE International Symposium on Circuits and Systems (ISCAS'03)*, pp. 417-420, May 25-28, 2003.

Patents/Disclosures:

- "Cuffless Blood Pressure Monitor" D. Buxi, J-M, Redoute, M.R.Yuce
- "A harmonics based wireless transmission device and associated method" (with A. Laskovski), PCT submitted, 2009 (Published). PCT/AU2009/000970.
- "Method, Architecture and Circuit Implementation for Ultra-Wideband Wireless Transceiver for Neural Recording Applications" (with W. Liu, M. Chae, M. Sivaprakasam), UCSC invention disclosure, March 2008.
- Transmission line based wireless signal detection" with G. Ellem and B. Vaughan, Disclosure through TUNRA (Newcastle Innovations), 2006.