

S. M. A. MOTAKABBER



- KULLIYAH OF ENGINEERING
- IIUM Gombak Campus
- Email address:
amotakabber@iium.edu.my

ACADEMIC QUALIFICATION

- Ph.D in Electrical, Electronics & Systems Engineering
- M.Sc in Applied Physics & Electronics
- B.Sc in Applied Physics & Electronics

TEACHING RESPONSIBILITIES

ELECTRICAL AND COMPUTER ENGINEERING LAB I	2012/2013 2013/2014 2014/2015 2017/2018 2018/2019 2019/2020 2020/2021
ELECTRICAL ENGINEERING LAB	2015/2016 2016/2017 2017/2018
ELECTRONIC CIRCUITS	2010/2011 2011/2012 2012/2013 2013/2014 2014/2015 2015/2016 2016/2017 2017/2018 2018/2019 2019/2020 2020/2021
ELECTRONICS	2009/2010 2011/2012 2012/2013 2013/2014 2014/2015 2015/2016 2016/2017 2017/2018 2018/2019 2019/2020 2020/2021
EMBEDDED SYSTEM DESIGN	2016/2017 2017/2018 2018/2019 2019/2020
EMBEDDED SYSTEMS	2016/2017
ENGINEERING LAB II	2011/2012 2012/2013 2013/2014 2014/2015 2015/2016
FINAL YEAR PROJECT I	2018/2019
FINAL YEAR PROJECT II	2019/2020
INTEGRATED DESIGN PROJECT	2018/2019 2019/2020
PROJECT I	2018/2019
RF DESIGN AND MICROWAVE SYSTEMS	2017/2018 2018/2019 2019/2020 2020/2021

RESEARCH PROJECTS

In Progress

- 2018 - Present** Verifying the Mechanical Power Transformation Effectiveness of Brushless DC Motor and its Characteristics
- 2018 - Present** Development of circuit simulator model for Negative Capacitance Field Effect Transistors for Low Power IoT Devices applications
- 2017 - Present** Development of FPGA based RFID Reader for UWB Chipless Tag
- 2016 - Present** Novel Tactile Sensory Surface Mat with Electrical Stimulation (SMES)for the Prevention of Pressure Ulcers due to Immobility
- 2016 - Present** Development of a Parallel biosensing system for personalized and pointof-care chemotherapy treatment

Completed

- 2017 - -1** Silicon Solar Cell Mask Design
- 2017 - 2019** Development of FPGA based RFID Reader for UWB Chipless Tag
- 2016 - 2019** Novel Tactile Sensory Surface Mat with Electrical Stimulation (SMES)for the Prevention of Pressure Ulcers due to Immobility
- 2016 - 2019** Development of a Parallel biosensing system for personalized and pointof-care chemotherapy treatment
- 2015 - 2018** Characterization for Verification of Electrostatic Generator's Effectiveness for Power Generation
- 2014 - 2017** Design and Development of Chipless Ultra Wideband RFID System
- 2013 - 2015** Analysis And Characterization Of Chipless Rfid Tag For Investigating The Scope Of Uses In Malaysia
- 2013 - 2015** Studies on Carbon Nanotubes (CNTs) for Developing High Performance CNTFETs for Designing Low Power High Speed Logic Gates
- 2012 - 2014** Design and Development of Advanced Techniques for Brain Computer Interface using Multi-Channel Electroencephalography (EEG) Signal

PUBLICATIONS

Article

- 2014** [Design of a planar wideband patch antenna for UHF RFID tag.](#) Microwave and Optical Technology Letters , 56 (7) pp.1579-1584
- 2014** [Design and development of computer controlled active sonar system.](#) Technical Gazette , 21 (4) pp.751-756
- 2013** [Design and Development of a Simulator for Modelling Carbon Nanotube.](#) IOP Conference Series: Materials Science and Engineering , 53(1) (012049) pp.1-6

- 2013** [Development of a web-based financial application system.](#) IOP Conference Series: Materials Science and Engineering , 53 (012080) pp.1-8
- 2013** [Comparative data compression techniques and multi-compression results.](#) IOP Conference Series: Materials Science and Engineering , 53 (012081) pp.1-7
- 2013** [Edge detection techniques for iris recognition system.](#) IOP Conference Series: Materials Science and Engineering , 53(1) (012041) pp.1-3
- 2013** [A low-cost PC-based range finder system.](#) International Journal of Computer and Communication Engineering , 2 (6) pp.693-695
- 2013** [TCP/IP based networking for telemedicine.](#) International Journal of Computer and Communication Engineering , 2 (6) pp.689-692
- 2013** [Design and development of a compact wideband C-shaped patch antenna for UHF RFID tag.](#) Research Journal of Applied Sciences, Engineering and Technology , 6 (12) pp.2118-2126
- 2013** [Crystal controlled CMOS oscillator for 13.56 MHz RFID reader.](#) Journal of Microelectronics, Electronic Components and Materials , 43 (2) pp.119-123
- 2013** [Investigation on carbon nanotube electronics structure .](#) Pensee Journal , 75 (11) pp.123-129

Conference or Workshop Item

- 2015** [Classification of multichannel EEG signal by linear discriminant analysis.](#) In: **23rd International Conference on Systems Engineering**
- 2014** [Microstrip spiral resonator for the UWB chipless RFID tag.](#) In: **The 23rd International Conference on Systems Engineering**
- 2014** [Template matching techniques for iris recognition system.](#) In: **5th International Conference on Computer and Communication Engineering**
- 2014** [Classification of multichannel EEG signal by single layer perceptron learning algorithm.](#) In: **5th International Conference on Computer and Communication Engineering (ICCCE 2014)**
- 2014** [Parameter optimization for piezoelectric micro-energy harvesting system.](#) In: **5th International Conference on Computer and Communication Engineering**
- 2014** [Three phase three layer phase synchronous inverter for microgrid system.](#) In: **5th International Conference on Computer and Communication Engineering**
- 2014** [Spiral resonator for ultra wide band chipless RFID tag.](#) In: **5th International Conference on Computer and Communication Engineering**
- 2014** [Integrated si lens antenna with planar log-spiral feed for THz band.](#) In: **5th International Conference on Computer and Communication Engineering**
- 2014** [Bridge scour monitoring by using RFID system.](#) In: **4th International Conference on Geotechnique, Construction Materials and Environment**
- 2014** [Differential capacitor sensor of wireless sensor network for landslide monitoring.](#) In: **4th International Conference on Geotechnique, Construction Materials and Environment**

- 2013 [A planar wideband inductively coupled feed patch antenna for UHF RFID tag.](#) In: **The 2013 IEEE International Conference on RFID Technologies and Applications**
- 2013 [A planar wideband microstrip patch antenna for UHF RFID tag.](#) In: **The 2013 IEEE International Conference on Space Science and Communication (IconSpace)**
- 2013 [Modeling of small Band-gap CNT for designing of faster switching CNTFET.](#) In: **2013 IEEE Business Engineering and Industrial Applications Colloquium**
- 2013 [Performance analysis of different techniques for brain computer interfacing.](#) In: **International Conference on Computing, Electrical and Electronic Engineering**
- 2013 [Development of a web based financial application system.](#) In: **5th International Conference on Mechatronics**
- 2013 [Development of a position detection technique for UWB chipless RFID tagged object.](#) In: **2013 International Conference on Computing, Electrical and Electronics Engineering (ICCEEE 2013)**
- 2013 [Real-time bridge scour monitoring system by using capacitor sensor.](#) In: **3rd International Conference on Geotechnique, Construction Materials and Environment (GEOMATE 2013)**
- 2013 [Comparative data compression techniques and multi-compression results.](#) In: **5th International Conference on Mechatronics (ICOM'13)**
- 2013 [Wireless sensor network for landslide monitoring.](#) In: **3rd International Conference on Geotechnique, Construction Materials and Environment (GEOMATE 2013)**
- 2013 [Modeling of optimum chiral carbon nanotube using DFT.](#) In: **13th IEEE International Conference on Nanotechnology**
- 2013 [Photoplethysmography based remote health monitoring system.](#) In: **IEEE International Conference on Smart Instrumentation, Measurement and Applications (ICSIMA 2013)**
- 2013 [Edge detection techniques for iris recognition system.](#) In: **5th International Conference on Mechatronics (ICOM'13)**
- 2013 [Analysis of CNT electronics structure to design CNTFET.](#) In: **2013 IEEE 5th International Nanoelectronics Conference (INEC)**

Book

- 2012 [Fundamentals of microelectronic circuits.](#) Pearson Malaysia Sdn Bhd . ISBN 978-967-349-202-2

Book Section