

AHMAD FADZIL BIN ISMAIL



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

ACADEMIC QUALIFICATION

- Electronics
- M.Phil.
- Telecommunication & Information Systems

TEACHING RESPONSIBILITIES

COMMUNICATIONS LAB	2006/2007
DIGITAL COMMUNICATIONS	2006/2007 2007/2008 2008/2009 2009/2010 2010/2011 2011/2012 2012/2013 2013/2014 2017/2018
FINAL YEAR PROJECT 1	2019/2020 2020/2021
Final Year Project I	2018/2019
Final Year Project II	2018/2019
MICROWAVE ENGINEERING	2014/2015 2018/2019
RESEARCH PROPOSAL (DOCTORAL PROG)	2016/2017
Radar Systems	2019/2020
SELECTED TOPICS IN COMMUNICATION ENGINEERING	2005/2006 2006/2007 2008/2009
SELECTED TOPICS IN COMMUNICATIONS ENGINEERING	2008/2009 2009/2010 2010/2011 2011/2012 2012/2013 2013/2014 2014/2015 2015/2016 2016/2017 2017/2018 2018/2019 2019/2020
Selected Topics in Communication Engineering	2018/2019 2019/2020 2020/2021
TELECOMMUNICATIONS SYSTEMS	2005/2006 2006/2007 2007/2008 2008/2009 2009/2010 2010/2011 2011/2012 2012/2013 2013/2014 2014/2015
WIRELESS NETWORKING	2014/2015
WIRELESS TECHNOLOGY	2014/2015

RESEARCH PROJECTS

In Progress

- 2019 - Present** Inspection, Repair and Make Good Geoscanner AKULA 9000 Ground Penetrating Radar
- 2019 - Present** SURVEY ON PUBLIC AWARENESS OF SCIENCE, TECHNOLOGY AND INNOVATION MALAYSIA 2019
- 2019 - Present** Sustainable Development Goals for Digital Entrepreneurship ? assesment of technological requirements, beyond computers and internet access
- 2019 - Present** Structural Studies of Glass-Polymer Composite for More Robust Flexible Wearable Antenna via Injection Moulding Process
- 2019 - Present** Empirical Studies of Diurnal Variability and Cloud Effects on Solar Ultraviolet Radiation for augmented Skin Vitamin D synthesis.
- 2018 - Present** Kajian Bibliometrik Kebangsaan (Tahun 2001-2017)
- 2018 - Present** An investigation of low cost and energy efficient 3D hybrid beamforming technique of 3D antenna array for 5G standards
- 2018 - Present** Investigation of Techniques to Mitigate Interference in Multi-Tiers Heterogeneous Wireless Network
- 2018 - Present** Service for Mala GPR Ground Penetrating Radar Battery
- 2018 - Present** An investigation of low cost and energy efficient 3D hybrid beamforming technique of 3D antenna array for 5G standards
- 2017 - Present** Kiram-al-Katibin : Green and Secure IoT Project for Managing Resources and Assist Classroom Related Activities
- 2017 - Present** Profiling Radar Reflectivity as Improved Fade Margin Estimator for Reliable Future Ka-band Satellite link in Equatorial Region
- 2017 - Present** Analyses of Infodemiology among Parents with Chronic Disease Children in Malaysia for improved Public Health Informatics
- 2016 - Present** Task Bring Up, Make Good and Setting-To-Work Simcos Operating System of Server No.2
- 2016 - Present** Investigation on the Behaviour of Weapon Positioning System on Volatile Warship
- 2016 - Present** Exploration of Software-Defined Radio's Platform to Increase Knowledge and Experience in Conducting Experimental Study of Communication System
- 2016 - Present** Ingenious Technique to Diminish Peak Average Power Ratio (PAPR) Obstacle in the Future 5th Generation (5G) Wireless Systems
- 2015 - Present** Database-Aided Energy Detection Spectrum Sensing To Enhance Cognitive Radio Spectrum Utilization Of RADAR Frequency Bands

2015 - Present	Development of a Revised Free Space Path Loss (FSPL) Formulation for a more Reliable Satellite Link Fade Margin in Tropical Region
2014 - Present	Novel Method for Optimizing Real-Time Multimedia Performance in the Presence of Mobile Cellular Channel Impairments
2011 - Present	IIUM STRATEGIC TECHNOLOGIES AND ENGINEERING UNIT (ISTEU)
Unknown - Present	Transfer of Drones Assisted Precision Farming and Data Analytics Skill for Malaysian Farmers to Mitigating Food Insecurity and Poverty Post COVID-19
Unknown - Present	Sustainable Development Goals for Digital Entrepreneurship ? assesment of technological requirements, beyond computers and internet access
Unknown - Present	The Design of a Novel Reliability and Maintainability framework to Enhance the Robustness of Satellite Communication System
Completed	
2018 - -1	ELECTRICITY MODULE AND FUNDAMENTAL OF GEOPHYSICS MODULE
2018 - -1	Kajian Bibliometrik Kebangsaan (Tahun 2001-2017)
2017 - -1	Repair and Make Good of Faulty E-Space Lite Pipehawk Ground Penetrating Radar
2017 - 2020	Analyses of Infodemiology among Parents with Chronic Disease Children in Malaysia for improved Public Health Informatics
2016 - 2018	Development of a Novel Lie Detection Technique Using Photoplethysmogram Signal
2016 - 2020	An Investigation to Identify Possible Technological Challenges in the 5G Wireless Heterogeneous Network
2016 - 2019	Exploration of Software-Defined Radio's Platform to Increase Knowledge and Experience in Conducting Experimental Study of Communication System
2016 - -1	Workstation SIMCARD Operating System of Server No.2
2016 - 2018	Development of Rain Fading Characteristics for Tropical Stratiform and Convective Events for High Frequency Satellite Link in Malaysia
2016 - 2018	Investigation on the Behaviour of Weapon Positioning System on Volatile Warship
2015 - 2017	Secret Key Infusion for Internet of Things
2015 - 2015	GSM-based Portable Finder for Rescue and Relief of Flood Victims
2015 - 2017	Integrated River Basin Monitoring and Flood Warning System
2015 - 2016	Tropical Flood Estimation Model Derived from Terminal Doppler Weather Radar Information
2015 - 2018	Database-Aided Energy Detection Spectrum Sensing To Enhance Cognitive Radio Spectrum Utilization Of RADAR Frequency Bands

- 2015 - 2017** Development of a Revised Free Space Path Loss (FSPL) Formulation for a more Reliable Satellite Link Fade Margin in Tropical Region
- 2014 - 2017** Novel Method for Optimizing Real-Time Multimedia Performance in the Presence of Mobile Cellular Channel Impairments
- 2013 - 2016** Novel Algorithm Error Control Codes for Interference Suppression in Orthogonal Frequency Division Multiplexing System
- 2013 - 2016** Measurement of Landslide Properties Using FMCW Radar
- 2013 - 2016** 3-D Spherical Antenna Array
- 2012 - 2015** Estimation of Specific Attenuation Radar Reflectivity (Y-Z) Relation using Razaksat's Signal Readings and Multi-Parameter Weather Radar Measurements
- 2012 - 2016** Correction of Radar Reflectivity and Differential for Improved Estimation of rainfall Rate at S-Band Wavelength
- 2012 - 2015** Femtocell Interference Assessments in Orthogonal Frequency Division Multiplexing Access (OFDMA) System
- 2012 - 2015** RU 2011: Rain Fade Mitigation Technique Time-Diversity for Future Millimeter-Wave Satellite Communication
- 2011 - 2015** Development of Spectrum Utilisation Database
- 2011 - 2013** RU 2011: Novel Mitigation Techniques for Narrowband Interference in Wavelet Based Orthogonal Frequency Division Multiplexing
- 2011 - 2015** Analyses of Rain Induced Attenuation Studies Using Razaks at Space-Earth Links
- 2008 - 2012** Issue of Reliable Communications at Frequencies Bands Above 25GHz in the Tropics

PUBLICATIONS

Article

- 2020** [Study of microstrip patch array antenna for side lobe suppression in the x-band region using uniform, binomial and tschebyscheff excitation methods.](#) IIUM Engineering Journal , 21 (1) pp.61-72
- 2020** [Frequency modulated continuous wave radar systems for detection and tracking: a review.](#) International Journal of GEOMATE
- 2019** [Phase offset analysis of asymmetric communications infrastructure in smart grid.](#) Elektronika ir Elektrotechnika , 25 (2) pp.67-71
- 2019** [A novel HGBBDSA-CTI approach for subcarrier allocation in heterogeneous network.](#) Telecommunication Systems , 70 (2) pp.245-262
- 2019** [Fishing community wireless network concept in Kuala Rompin, Pahang, Malaysia.](#) International Journal of Recent Technology and Engineering , 8 (2) pp.1889-1894

- 2019** [Two-year rain fade empirical measurement and statistics of earth-space link at ka-band in Malaysia.](#) ASM Science Journal , (Special Issu) 12 (2) pp.35-46
- 2019** [Analysis of airborne dust effects on terrestrial microwave propagation in arid area.](#) Bulletin of Electrical Engineering and Informatics (BEEI) , 8 (3) pp.1014-1021
- 2019** [User-centric learning for multiple access selections.](#) International Journal of Engineering and Advanced Technology , 9 (1) pp.2338-2344
- 2019** [Wireless connectivity predicaments in gsm-based amr system : an empirical research.](#) International Journal of Recent Technology and Engineering , 82 (2 Special Issue 11) pp.3474-3477
- 2018** [Determination of fade margin for Ka band operating in equatorial region.](#) Journal of Fundamental and Applied Sciences , 10 (25) pp.229-238
- 2018** [Performance comparison of DFT, DCT and DWT based OFDM with wavelet family to minimize PAPR.](#) Journal of Fundamental and Applied Sciences , 10 (2 (Special issue)) pp.138-150
- 2018** [Experimental studies on the effect of antenna orientations to the performance of OFDM-based System.](#) International Journal of Electrical and Computer Engineering (IJECE) , 8 (4) pp.2588-2594
- 2018** [A novel secret key generation based on image link.](#) International Journal of Engineering and Technology , 7 (2.5) pp.23-26
- 2018** [Biometric recognition for twins inconsideration of age variability using PPG signals.](#) Journal of Telecommunication, Electronic and Computer Engineering , 10 (1-5) pp.97-100
- 2018** [Photoplethysmogram based biometric identification incorporating different age and gender group.](#) Journal of Telecommunication, Electronic and Computer Engineering , 10 (1-5) pp.101-108
- 2018** [Measurements of mobile signal received power level at Ringlet, Cameron Highland, Malaysia.](#) International Journal of Engineering & Technology , 7 (4.35) pp.404-409
- 2018** [Throughput analysis on dynamic spectrum allocation technique to mitigate interference on LTE heterogeneous network.](#) International Journal of Control and Automation , 11 (4) pp.95-104
- 2018** [Propagation measurements during Daytime for RazakSAT S-band space to earth satellite signal transmission.](#) International Journal of Future Generation Communication and Networking , 11 (1) pp.63-72
- 2018** [Determination of correlation coefficients for RazakSAT received signals.](#) International Journal of Future Generation Communication and Networking , 11 (2) pp.1-10
- 2018** [CubeSat: LEO mission control unit potential communication concept for AMR system.](#) International Journal of Recent Technology and Engineering (IJRTE) , 7 (4S2) pp.346-349
- 2018** [Fade margin estimations for Malaysian armed forces military X-band satellite communication links.](#) International Journal of Future Generation Communication and Networking , 11 (3) pp.1-9

- 2018** [Study of emotional variability using photoplethysmogram signal.](#) Journal of Telecommunication, Electronic and Computer Engineering , 10 (1-6) pp.1-6
- 2018** [Lie detection using acceleration plethysmography signal.](#) Journal of Telecommunication, Electronic and Computer Engineering , 10 (1-6) pp.7-10
- 2018** [Development of a driver drowsiness monitoring system using electrocardiogram.](#) Journal of Telecommunication, Electronic and Computer Engineering , 10 (1-6) pp.11-15
- 2018** [The study of PPG and APG signals for biometric recognition.](#) Journal of Telecommunication, Electronic and Computer Engineering , 10 (1-6) pp.17-20
- 2018** [Heart abnormality detection using acceleration plethysmogram signal.](#) Journal of Telecommunication, Electronic and Computer Engineering , 10 (1-6) pp.21-24
- 2017** [Assembly of an S-band FMCW doppler radar system for improved pedestrians detection.](#) International Journal of Multimedia and Ubiquitous Engineering , 12 (3) pp.65-74
- 2017** [An empirical analysis on the effect of OFDM parameters to the performance of wireless communication system via USRP-based transceiver.](#) International Journal of Future Generation Communication and Networking , 10 (10) pp.65-72
- 2017** [Free space attenuation analysis for X -band and S-band satellite link using meteorological radar data in the tropics.](#) Journal of Telecommunication, Electronic and Computer Engineering (JTEC) , 9 (3-10) pp.105-108
- 2017** [Dynamic spectrum allocation scheme for heterogeneous network: BER analysis.](#) Journal of Telecommunication, Electronic and Computer Engineering (JTEC) , 9 (3-10) pp.99-104
- 2017** [Outage probability analysis of Co-Tier interference in heterogeneous network.](#) Elektronika ir Elektrotechnika , 23 (5) pp.89-93
- 2017** [RSSI measurements of a GSM signal within an indoor environment.](#) International Journal of Smart Home , 11 (3) pp.1-8
- 2017** [Assessment of dynamic spectrum allocation technique in heterogeneous network.](#) International Journal of Future Generation Communication and Networking , 10 (3) pp.41-48
- 2017** [Dynamic frequency reuse: a method for interference mitigation in OFDMA Based LTE-A Networks.](#) International Journal of Future Generation Communication and Networking , 10 (4) pp.11-18
- 2017** [Hybrid MMSE precoding for Millimeter-Wave \(mmW\) Multi-user Massive MIMO systems.](#) International Journal of Future Generation Communication and Networking , 10 (5) pp.29-38
- 2017** [Dust storm attenuation modeling based on measurements in Sudan.](#) IEEE Transactions on Antennas and Propagation , 65 (8) pp.4200-4208
- 2017** [Performance analysis of rain attenuation on earth-to-satellite microwave links design in Libya.](#) IOP Conference Series: Materials Science and Engineering , 260 (na) pp.012041

- 2017** [Dynamic spectrum allocation scheme for heterogeneous network.](#) Wireless Personal Communications , 95 (2) pp.299-315
- 2016** [Refining ku-band rain attenuation prediction using local parameters in tropics.](#) Indian Journal of Science and Technology , 9 (25) pp.97240-1-97240-8
- 2016** [Adapted packet scheduling algorithm for robust real-time multimedia.](#) Research Journal of Applied Sciences, Engineering and Technology , 13 (3) pp.215-222
- 2016** [Investigation of enhanced particle swarm optimization algorithm for the OFDMA interference management in heterogeneous network.](#) International Journal of Future Generation Communication and Networking , 9 (9) pp.15-24
- 2016** [An ingenious multiple communicator concept for next generation smart metering communication system.](#) International Journal of Smart Home , 10 (7) pp.57-68
- 2016** [Self-organized HGBBDSA approach for the power allocation in OFDMA-based heterogeneous network.](#) International Journal of Hybrid Information Technology , 9 (7) pp.419-428
- 2016** [Biogeography-based interference mitigation scheme for ofdma system in heterogeneous network.](#) International Journal of Multimedia and Ubiquitous Engineering , 11 (10) pp.253-262
- 2016** [Development of a rainfall rate monitoring system for Malaysia.](#) Indian Journal of Science and Technology , 9 (28) pp.1-8
- 2016** [Analyses of meteorology information during Malaysian flood disaster 2014.](#) Advanced Science Letters , 22 (10) pp.2814-2816
- 2016** [Daily activity monitoring of an elderly Person for determining their wellness.](#) International Journal of Smart Home , Vol. 10 (8) pp.339-346
- 2016** [Preliminary analyses on measured received signals of orbiting RazakSAT satellite.](#) Advanced Science Letters , 22 (10) pp.2790-2793
- 2016** [Analyses of cloud characteristic during Malaysian 2014 flood event.](#) Indian Journal of Science and Technology , 9 (25) pp.94834-1-94834-8
- 2016** [Derivation of Z- \$\gamma\$ \(Reflectivity-specific attenuation\) relation for satellite link in tropical region.](#) Advanced Science Letters , 22 (10) pp.2750-2753
- 2016** [Analyses of rainfall rate during Malaysian 2014 flood event.](#) International Journal of Multimedia and Ubiquitous engineering , 11 (8) pp.237-246
- 2016** [A test-bed evaluation of cognitive hybrid functionality for future hyper-dense networks.](#) Advanced Science Letters , 22 (10) pp.2769-2772
- 2016** [Exploitation of radio direction finder in the design of a UHF transmitter locator system.](#) Indian Journal of Science and Technology , 9 (25) pp.89622-1
- 2016** [Development of a river basin monitoring system for Malaysia.](#) International Journal of u- and e- Service, Science and Technology , 9 (7) pp.349-360
- 2015** [Cognitive power adjustment for OFDM-based wireless communication system: an empirical study.](#) Lecture Notes on Software Engineering , 3 (1) pp.35-39

- 2015** [Estimating tropical rain attenuation on the Earth-satellite path using radar data.](#) International Journal of Remote Sensing , 36 (24) pp.6101-6115
- 2015** [A modified effective path length for predicting rain attenuation based on measurements in Penang-Malaysia.](#) ARPN Journal of Engineering and Applied Sciences , 10 (21) pp.10096-10100
- 2015** [Throughput enhancement for WLAN TV white space in coexistence of IEEE 802.22.](#) Indian Journal of Science and Technology , 8 (11) pp.439-443
- 2015** [Classification of rain types for rain attenuation prediction method improvement based on radar information in tropics .](#) ARPN Journal of Engineering and Applied Sciences , 10 (16) pp.7202-7205
- 2015** [Throughput evaluation for the downlink scenario of co-tier interference in heterogeneous network.](#) ARPN Journal of Engineering and Applied Sciences , 10 (21) pp.9646-9668
- 2015** [Cluster-based time synchronisation scheme for femtocell network .](#) International Journal of Mobile Communications , 13 (6) pp.567-598
- 2015** [Effects of wind velocity on slant path rain-attenuation for satellite application in Malaysia.](#) Acta Astronautica , 117 pp.402-407
- 2015** [Cognitive energy efficient for closed-proximity devices: an empirical study and standardization issues.](#) ARPN Journal of Engineering and Applied Sciences , 10 (3) pp.987-992
- 2015** [Lightweight handover control function \(L-HCF\) for Mobile Internet Protocol version Six \(IPv6\).](#) Indian Journal of Science & Technology , 8 (12) pp.1-8
- 2015** [A modified effective path length for predicting rain attenuation based on measurements in Penang-Malaysia .](#) ARPN Journal of Engineering and Applied Sciences , 10 (21) pp.10096-100100
- 2014** [A modified rain attenuation prediction model for tropical V-band satellite earth link.](#) International Journal of Satellite Communications and Networking , 32 (1) pp.1-11
- 2014** [Performance analysis of interference coordination techniques in heterogeneous network.](#) Research Journal of Applied Sciences, Engineering and Technology , 7 (8) pp.1536-1550
- 2014** [Assessment of ITU-R conversion method for 1-minute integration time of precipitation intensity in Malaysia.](#) Wireless Technology and Applications (ISWTA), 2014 IEEE Symposium on pp.141-145
- 2014** [A study on health monitoring system: recent advancements.](#) IIUM Engineering Journal , 15 (2) pp.87-99
- 2014** [A simulation tool for downlink long term evolution-advanced.](#) Research Journal of Applied Sciences, Engineering and Technology , 8 (19) pp.2032-2041
- 2014** [Statistics of rainfall rate at 60 minutes integration time in Malaysia.](#) Australian Journal of Basic and Applied Sciences , 8 (14) pp.420-425

- 2014** [The use of convolutional code for narrowband interference suppression in OFDM-DVBT System.](#) ARPN Journal of Engineering and Applied Sciences , 9 (8) pp.1183-1189
- 2014** [Assessment of X-band earth-satellite link rain attenuation prediction in Malaysia.](#) Australian Journal of Basic and Applied Sciences , 8 (24) pp.254-259
- 2014** [Development of spectrum management tool using open-source geographical information system \(GIS\) software.](#) Australian Journal of Basic and Applied Sciences , 8 (24) pp.275-282
- 2014** [New empirical conversion technique for 1-minute integration time of precipitation intensity in Malaysia.](#) Australian Journal of Basic and Applied Sciences , 8 (24) pp.290-295
- 2014** [Comparison of different empirical conversion methods from 60-minute to 1-minute integration time in Malaysia.](#) Australian Journal of Basic and Applied Sciences , 8 (24) pp.321-327
- 2014** [Development of RF spectrum management tool for Malaysia using Open-Source software.](#) International Journal of Electrical Energy , 2 (1) pp.7-12
- 2013** [Assessment of radar reflectivity-rainfall rate, Z-R relationships for a convective event in Malaysia.](#) International Journal of Electrical Energy , 1 (4) pp.239-243
- 2013** [Assessments of time diversity rain fade mitigation technique for v-band space-earth link operating in tropical climate.](#) International Journal of Electrical Energy , 1 (4) pp.268-273
- 2013** [Cognitive selection mechanism for indoor propagation.](#) International Journal of Computer and Communication Engineering , 2 (4) pp.433-437
- 2013** [Rain fade estimations for the X-Band satellite communication link in the tropics.](#) International Journal of Computer and Communication Engineering , 2 (4) pp.408-412
- 2013** [Predicting radio frequency radiation from mobile communication base stations.](#) International Journal of Computer and Communication Engineering , 2 (4) pp.482-486
- 2013** [Comparison of radar derived rain attenuation with the RazakSAT's X-Band link signal measurement.](#) International Journal of Computer and Communication Engineering , 2 (4) pp.428-432
- 2013** [Cognitive selection mechanism performance in IEEE 802.11 WLAN.](#) International Journal of Computer and Communication Engineering , 2 (4) pp.477-481
- 2013** [A qualitative review for wireless health monitoring system .](#) IOP Conference Series: Materials Science and Engineering , 53 (1) pp.1-7
- 2013** [An investigation of interference coordination in heterogeneous network for LTE-Advanced systems.](#) IOP Conf. Series: Materials Science and Engineering , 5 (1) pp.1-11
- 2013** [Preliminary analysis of dust effects on microwave propagation measured in Sudan.](#) IOP Conference Series: Materials Science and Engineering , 53 pp.1-7

- 2013** [Transforming human gait for signature signals characterization.](#) Materials Science and Engineering , 53 pp.1-7
- 2012** [Analyses of worst month rain fade for ku band\(26Ghz\) in the tropics.](#) Radiomatics Journal on Communications Engineering , 3 (2) pp.22-27
- 2011** [Rain induced attenuation studies for V-band satellite communication in tropical region .](#) Journal of Atmospheric and Solar-Terrestrial Physics , 73 (5-6) pp.601-610
- 2010** [V-Band fade dynamics characteristics analysis in tropical region.](#) American Journal of Applied Sciences , 7 (8) pp.1109-1114

Conference or Workshop Item

- 2018** [Capacitive proximity floor sensing system for elderly tracking and fall detection.](#) In: **4th IEEE International Conference on Smart Instrumentation, Measurement and Applications, ICSIMA 2017**
- 2018** [Air born dust particles effects on microwave propagation in arid-area.](#) In: **7th International Conference on Computer and Communication Engineering, ICCCE 2018**
- 2017** [A capacitive proximity sensing scheme for human motion detection.](#) In: **2017 IEEE International Instrumentation and Measurement Technology Conference (I2MTC)**
- 2016** [Dust storms attenuation measurements at 14GHz and 21GHz in Sudan.](#) In: **1st International Conference on Computing, Control, Networking, Electronics and Embedded Systems Engineering, ICCNEEE 2015**
- 2016** [Assessment of statistical and empirical conversion methods of integration time for rainfall rate in Malaysia.](#) In: **2nd International Conference on Communication and Computer Engineering, ICOCOE 201**
- 2016** [Mutual impedance with finite feed gap model of dipole antennas using the induced EMF method.](#) In: **2015 IEEE 12th Malaysia Internation Conference On Communications**
- 2016** [Basic study of OFDM with multipath propagation model in GNU Platform.](#) In: **IEEE International Conference on Wireless Sensors 2015**
- 2016** [SDR-based transceiver of digital communication system using USRP and GNU Radio.](#) In: **6th International Conference on Computer and Communication Engineering (ICCCE 2016)**
- 2016** [Optimization of 2D sparse array antenna for FMCW radar.](#) In: **2016 10th European Conference on Antennas and Propagation (EuCAP)**
- 2016** [FMCW radar for slow moving target detection: Design and performance analysis.](#) In: **6th International Conference on Computer and Communication Engineering (ICCCE 2016)**
- 2015** [Development of spectrum management tool for Malaysia using open-source GIS software.](#) In: **1st Applied Electromagnetic International Conference (APPEIC 2014)**
- 2015** [Assessment of conversion methods to acquire 1-minute integration time rain intensity statistic.](#) In: **1st Applied Electromagnetic International Conference, APPEIC 2014**

- 2015 [Fade margin estimation technique using radar data for satellite link.](#) In: **Full Text(opens in a new window)|View at Publisher| Export | Download | Add to List | More...** **Lecture Notes in Electrical Engineering Volume 344, 2015, Pages 247-253 1st Applied Electromagnetic International Conference, APPEIC 2014**
- 2015 [Classification of precipitation types detected in Malaysia.](#) In: **1st Applied Electromagnetic International Conference, APPEIC 2014**
- 2015 [Preliminary analysis of dust storm effects on microwave links measured in Khartoum.](#) In: **2015 IEEE 12th Malaysia International Conference on Communications (MICC)**
- 2015 [Comparison of conversion methods from 60- to 1-min integration time for rainfall in Malaysia.](#) In: **"2nd International Conference on Communication and Computer Engineering, ICOCOE 2015"**
- 2015 [Impact of outdated CQI report on adapted well-known packet scheduling algorithm when streaming video.](#) In: **2015 International Conference on Space Science and Communication (IconSpace2015)**
- 2014 [A multihoming-based mobility management scheme to reduce registration delay on proxy MIPv6 domain in NEMO.](#) In: **2nd IEEE International Symposium on Telecommunication Technologies (ISTT 2014)**
- 2014 [Self-organizing joint sensing and power allocation scheme \(SJSPA\) to coordinate cross-tier interference for LTE-A heterogeneous networks.](#) In: **2014 2nd IEEE International Symposium on Telecommunication Technologies (ISTT2014)**
- 2014 [Assessment of ITU-R predictions for ku-band rain attenuation in Malaysia.](#) In: **2014 IEEE International Symposium on Telecommunication Technologies (ISTT)**
- 2014 [Assessment of empirical conversion methods for producing 1-min integration time rainfall rate in Malaysia.](#) In: **2014 IEEE 2nd International Symposium on Telecommunication Technologies (ISTT)**
- 2014 [Comparison of ITU-R predicted rainfall rates against measured data in Malaysia.](#) In: **2014 IEEE Symposium on Wireless Technology and Applications (ISWTA)**
- 2014 [Assessment of ITU-R conversion method for 1- minute integration time of precipitation intensity in Malaysia.](#) In: **2014 IEEE Symposium on Wireless Technology and Applications (ISWTA)**
- 2014 [Comparison of X-band satellite link measurements with radar derived rain attenuation in the tropics.](#) In: **The 3rd International Conference on Computer Engineering & Mathematical Sciences (ICCEMS 2014)**
- 2014 [Lightweight handover control function \(L-HCF\) for Mobile Internet Protocol version Six \(IPv6\).](#) In: **3rd International Conference on Computer Engineering & Mathematical Sciences (ICCEMS 2014)**
- 2014 [Development of an empirical dust storm attenuation prediction model for microwave links in arid area – a proposed framework.](#) In: **5th International Conference on Computer and Communication Engineering**

- 2014 [Fade margin estimations for military X-band satellite communication links in tropical region.](#) In: **The 3rd International Conference on Computer Engineering and Mathematical Sciences (ICCEMS14)**
- 2014 [BER performance of OFDM system with the effect of error control code.](#) In: **Australasian Telecommunication Networks and Applications Conference (ATNAC), 2014**
- 2014 [Cluster-based spectrum sensing scheme in heterogeneous network.](#) In: **International Conference on Applied Electromagnetics (APPEIC 2014)**
- 2014 [Self-organizing spectrum allocation \(SON-SA\) scheme for heterogeneous network.](#) In: **The 3rd International Conference on Computer Engineering & Mathematical Sciences (ICCEMS 2014)**
- 2014 [Performance analysis of spectrum sensing methods: a numerical approach.](#) In: **5th International Conference on Computer and Communication Engineering (ICCCE 2014)**
- 2014 [Simulation of electrical characterization on lateral silicon-on-insulator PIN Diode for space radiation detector.](#) In: **5th International Conference on Computer & Communication Engineering (ICCCE 2014)**
- 2013 [Initial assessment of radar reflectivity-rainfall rate, Z-R relationships for moderate rain events in Malaysia .](#) In: **Wireless Technology and Applications (ISWTA), 2013 IEEE Symposium on**
- 2013 [Development of spectrum monitoring tool for Malaysia .](#) In: **2013 IEEE 11th Malaysia International Conference on Communications**
- 2013 [Preliminary analysis of dust effects on microwave propagation measured in Sudan .](#) In: **5th International Conference on Mechatronics (ICOM'13)**
- 2013 [Evaluation of RazakSAT's S-band link signal measurement with the radar derived rain attenuation.](#) In: **International Conference on Space Science and Communication (IconSpace)**
- 2013 [Determination of Ku-band specific attenuation parameters based on measurements in the tropics.](#) In: **2013 IEEE International Symposium on Antennas and Propagation and USNC-URSI National Radio Science Meeting**
- 2013 [Comparison of Ku-Band satellite rain attenuation with ITU-R prediction models in the tropics.](#) In: **2013 IEEE Antennas and Propagation Society International Symposium (APSURSI)**
- 2013 [An empirical study of cognitive selection mechanism deployment in wireless environment.](#) In: **2013 USNC-URSI Radio Science Meeting (Joint with AP-S Symposium)**
- 2013 [Proposed rain fade mitigation technique for Ka band space earth links in tropical climate.](#) In: **2013 IEEE 11th Malaysia International Conference on Communication (MICC 2013)**
- 2013 [Inter-cell interference coordination in LTE-A HetNets: a survey on self organizing approaches.](#) In: **2013 International Conference on Computing, Electrical and Electronics Engineering (ICCEEE)**

- 2013 [Rain induced attenuation studies using RazakSAT space-Earth links.](#) In: **2013 IEEE International Conference on Space Science and Communication (IconSpace),**
- 2013 [Lightweight inter-cluster synchronization scheme for femtocell network.](#) In: **2013 International Conference on Computing, Electrical and Electronics Engineering (ICCEEE)**
- 2013 [Performance analysis of cognitive selection mechanism for wireless LAN system.](#) In: **2013 IEEE International Symposium on Antennas and Propagation and USNC-URSI National Radio Science Meeting**
- 2013 [Impulsive noise mitigation in Haar DWT based OFDM systems.](#) In: **2013 IEEE 11th Malaysia International Conference on Communications**
- 2013 [Evaluation of radar reflectivity-rainfall rate, Z-R relationships during a stratiform event in the tropics.](#) In: **2nd Asia-Pacific Conference on Antennas and Propagation (APCAP)**
- 2013 [Analyses of rain fade countermeasure technique time diversity at 38 GHz.](#) In: **2nd Asia-Pacific Conference on Antennas and Propagation (APCAP)**
- 2013 [Performance analysis of two component carrier selection algorithms in the downlink LTE-A.](#) In: **2013 IEEE 11th Malaysia International Conference on Communications**
- 2013 [Inter-cell interference coordination in heterogeneous network: a qualitative and quantitative analysis.](#) In: **11th Malaysia International Conference on Communications**
- 2012 [Analyses of rain fade countermeasure technique time diversity at 26 GHz.](#) In: **2012 IEEE Asia-Pacific Conference Antennas and Propagation (APCAP)**
- 2012 [DSA impacts on data transmission: An experimental study.](#) In: **2012 Wireless Advanced (WiAd)**
- 2012 [Analyses of worst-month rain fade statistics for Ku-band \(26GHz\) in the tropics.](#) In: **2012 7th International Conference on Telecommunication Systems, Services, and Applications (TSSA)**
- 2012 [Fade slope modeling at high elevation angle on space-earth path link.](#) In: **International Conference on Computer and Communication Engineering (ICCCE 2012)**
- 2012 [An investigation of packet scheduling algorithms for long term evolution-advanced.](#) In: **2012 IEEE Conference on Open Systems (ICOS)**
- 2012 [Analysis of rain fade duration over satellite-earth path at Ku-Band in tropics.](#) In: **International Conference on Computer and Communication Engineering (ICCCE 2012)**
- 2011 [Rain attenuation prediction model for tropical V-band satellite earth link.](#) In: **International Conference on Telecommunication Technology and Applications**
- 2011 [Effects of Impulsive Noise on Fourier Based OFDM and Wavelet Based OFDM.](#) In: **ICACSIS 2011**

- 2011 [Impulsive noise effects on DWT-OFDM versus FFT-OFDM.](#) In: **The 17th Asia Pacific Conference on Communications**
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- 2011 [An Investigation of Femtocell Network Synchronization.](#) In: **2011 IEEE Conference on Open Systems**
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