

HUDA ADIBAH BT. MOHD. RAMLI



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

ACADEMIC QUALIFICATION

- Doctor of Philosophy
- Master of Science (Computer Science - Software Engineering)
- Bachelor of Engineering (Computer & Information)

TEACHING RESPONSIBILITIES

| | |
|--|---|
| ELECTRIC CIRCUITS | 2006/2007 2007/2008 2011/2012 2012/2013 2013/2014 2014/2015 2015/2016 2016/2017 2017/2018 2018/2019 2019/2020 2020/2021 |
| ELECTRICAL AND COMPUTER ENGINEERING LAB II | 2006/2007 |
| ELECTRICAL ENGINEERING LAB | 2015/2016 2017/2018 2018/2019 2019/2020 2020/2021 |
| ENGINEERING LAB I | 2007/2008 2011/2012 2012/2013 2013/2014 2014/2015 2015/2016 |
| ENGINEERING LAB II | 2006/2007 2018/2019 |
| FINAL YEAR PROJECT 1 | 2019/2020 2020/2021 |
| FUNDAMENTALS OF ELECTRICAL AND ELECTRONIC | 2020/2021 |
| Final Year Project I | 2018/2019 |
| Final Year Project II | 2018/2019 2019/2020 |
| MICROPROCESSORS & INTERFACING | 2006/2007 |
| MICROPROCESSORS AND INTERFACING | 2006/2007 |
| PROJECT PAPER | 2017/2018 |
| RESEARCH METHODOLOGY & SEMINAR IN ECE ENG (MIXED MODE) | 2019/2020 2020/2021 |
| RESEARCH METHODOLOGY AND SEMINAR | 2019/2020 2020/2021 |
| SEMINAR | 2011/2012 2012/2013 |

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|---|--|
| SEMINAR I | 2011/2012 2012/2013 |
| SEMINAR II | 2012/2013 |
| SPECIAL TOPICS IN ADVANCED COMMUNICATION ENGI | 2015/2016 2016/2017 |
| WIRELESS COMMUNICATION SYSTEMS | 2015/2016 2016/2017 2017/2018 2018/2019 2019/2020 2020/2021 |

RESEARCH PROJECTS

In Progress

- 2019 - Present** Investigation on the Effectiveness of a Packet Scheduling Algorithm for Health Care in Cognitive Fifth Generation (5G) Mobile Networks
- 2019 - Present** Decision and Game Theory based Comprehensive Tactical Modelling of Node Misbehaviour for Threat Computing in MANET based IoT System
- 2018 - Present** Investigation of Techniques to Mitigate Interference in Multi-Tiers Heterogeneous Wireless Network
- 2018 - Present** Investigation of MIMO Software Defined Radar as a tool for Landslide Early Warning System (EWS)

Completed

- 2016 - 2020** An Investigation to Identify Possible Technological Challenges in the 5G Wireless Heterogeneous Network
- 2015 - 2018** Analysis and Evaluation of Quality of Service Support Requirements in Mobile Network Environment
- 2014 - 2017** Novel Method for Optimizing Real-Time Multimedia Performance in the Presence of Mobile Cellular Channel Impairments
- 2014 - 2018** Analysis of Human Hand Motion and Force during Eating and Model Formulation based on Neural Network for Robotic ADL Rehabilitation
- 2013 - 2016** Measurement of Landslide Properties Using FMCW Radar
- 2013 - 2016** Novel Algorithm Error Control Codes for Interference Suppression in Orthogonal Frequency Division Multiplexing System
- 2013 - 2018** Design and Modelling of Novel Dynamic Bandwidth Aggregation Scheme in Heterogeneous Wireless Network (HWN) for Mission Critical Applications
- 2012 - 2015** Analytical evaluation of inter domain movement in NEMO environment
- 2011 - 2014** Performance Analysis of Resource Allocation in Mobile Cellular Systems

PUBLICATIONS

Article

- 2020** [Evaluating signalling and packet delivery cost for NDN producer's mobility in smart & sustainable environment.](#) Journal of Advanced Research in Dynamical and Control Systems , 12 (6) pp.1604-1614
- 2020** [Evaluating average throughput for quantity of data stream in an NDN rendezvous server.](#) International Journal of Advanced Science and Technology , 29 (6) pp.125-134
- 2020** [Simulation of handoff algorithm for NDN producer's mobility.](#) Journal of Advanced Research in Dynamical and Control Systems , 12 (2) pp.2242-2251
- 2020** [A study on packet scheduling algorithms for healthcare contents over fifth generation \(5G\) mobile cellular network.](#) International Journal of Electronics and Telecommunications , 66 (4) pp.729-735
- 2020** [MROM scheme to improve handoff performance in mobile networks.](#) International Journal of Interactive Mobile Technologies (ijIM) , 14 (17) pp.167-188
- 2020** [An enhanced packet scheduling algorithm for the downlink cognitive long term evolution-advanced.](#) IIUM Engineering Journal , 21 (1) pp.51-60
- 2020** [Performance analysis of 5G path loss models for rural macrocell environment.](#) IIUM Engineering Journal , 21 (1) pp.85-99
- 2019** [A study of packet scheduling algorithms in long term evolution-advanced.](#) Indonesian Journal of Electrical Engineering and Computer Science , 18 (1) pp.516-524
- 2019** [The needs of collaborative tool for practicing pair programming in educational setting.](#) International Journal of Interactive Mobile Technologies (ijIM) , 13 (07) pp.17-30
- 2019** [Investigation of internet of things handover process for information centric networking and proxy mobile internet protocol.](#) Mehran University Research Journal of Engineering & Technology , 38 (4) pp.867-874
- 2018** [An analysis of a flexible dry surface electrodes.](#) Indonesian Journal of Electrical Engineering and Computer Science , 10 (1) pp.74-83
- 2018** [S-band FMCW Radar for target tracking and monitoring.](#) Journal of Telecommunication, Electronic and Computer Engineering (JTEC) , 10 (1-2) pp.123-126
- 2018** [Maximum-largest weighted delay first algorithm for heterogeneous traffic in 4G networks.](#) Indonesian Journal of Electrical Engineering and Informatics (IJEEI) , 6 (2) pp.190-199
- 2018** [A packet scheduling scheme for improving real-time applications performance in downlink LTE-advanced.](#) Indonesian Journal of Electrical Engineering and Informatics (IJEEI) , 6 (2) pp.200-209
- 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** [Investigations of component carrier selection algorithms in long term evolution-advanced.](#) Indonesian Journal of Electrical Engineering and Computer Science , 10 (1) pp.330-336
- 2017** [Throughput and handover latency evaluation for multicast proxy mobile IPV6.](#) Bulletin of Electrical Engineering and Informatics , 6 (4) pp.311-316

- 2017** [Simulation of packet scheduling in cognitive long term evolution-advanced.](#) Indonesian Journal of Electrical Engineering and Computer Science , 8 (2) pp.533-540
- 2017** [A novel fast reroute signaling cost for multicast proxy mobility.](#) Advanced Science Letters , 23 (11) pp.10986-10990
- 2017** [Packet loss and packet delivery evaluation using network simulator for multicast enabled network nobility management.](#) International Journal of Future Generation Communication and Networking , 10 (4) pp.41-50
- 2017** [Simulation analysis for multicast context delivery network mobility management.](#) Indonesian Journal of Electrical Engineering and Informatics (IJEI) , 5 (4.) pp.390-394
- 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** [Novel scheduling algorithm for optimizing real-time multimedia performance in Long-Term Evolution Advanced.](#) Turkish Journal Of Electrical Engineering & Computer Sciences , 25 (1) pp.247-253
- 2017** [Handover analysis for multicast enabled network mobility management using network simulator.](#) International Journal of Multimedia and Ubiquitous Engineering , 12 (3) pp.81-90
- 2017** [Mathematical evaluation of context transfer and multicast fast reroute in multicast enabled network mobility management.](#) International Journal of Control and Automation , 10 (3) pp.207-216
- 2016** [Evaluation of an enhanced multicast data flow technique in network mobility.](#) International Journal of Future Generation Communication and Networking , 9 (7) pp.153-164
- 2016** [Adapted packet scheduling algorithm for robust real-time multimedia.](#) Research Journal of Applied Sciences, Engineering and Technology , 13 (3) pp.215-222
- 2016** [Channel quality information \(CQI\) reporting algorithms in LTE-A.](#) International Journal of Soft Computing , 11 (4) pp.242-246
- 2016** [Advance signaling cost for multicast fast reroute proxy mobility management.](#) Indian Journal of Science & Technology , 9 (25) pp.1-6
- 2016** [Parametric comparison of multicast support for network mobility management: A qualitative analysis.](#) International Journal of Multimedia and Ubiquitous Engineering , 11 (9) pp.203-210
- 2016** [Multicast support in network based mobility management: Current challenges and solutions.](#) Advanced Science Letters , 22 (10) pp.2794-2798
- 2015** [Cognitive power adjustment for OFDM-based wireless communication system: an empirical study .](#) Lecture Notes on Software Engineering , 3 (1) pp.35-39
- 2014** [Performance analysis of interference coordination techniques in heterogeneous network.](#) Research Journal of Applied Sciences, Engineering and Technology , 7 (8) pp.1536-1550
- 2014** [A simulation tool for downlink long term evolution-advanced.](#) Research Journal of Applied Sciences, Engineering and Technology , 8 (19) pp.2032-2041

- 2014 [Analytical evaluation of intra domain mobility approach in NEMO environment.](#) Research Journal of Applied Sciences, Engineering and Technology , 7 (7) pp.1139-1148
- 2014 [Opportunistic and playback-sensitive scheduling for video streaming.](#) International Journal of Wireless & Mobile Networks (IJWMN) , 6 (1) pp.01-13
- 2014 [Development of RF spectrum management tool for Malaysia using Open-Source software.](#) International Journal of Electrical Energy , 2 (1) pp.7-12
- 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 [Delay control in multi-class multi-server RST-based communication networks via M/K setting.](#) International Journal of Computer Science and Network Security (IJCSNS) , 13 (12) pp.22-27
- 2013 [Robust scheduling algorithm for guaranteed bit rate services.](#) International Journal of Mobile Communications , 11 (1) pp.71-88
- 2011 [Quality-driven scheduling for long-term evolution system.](#) International Journal of Mobile Communications , 9 (5) pp.441-457
- 2011 [Video streaming performance under wellknown packet scheduling algorithms.](#) International Journal of Wireless & Mobile Networks (IJWMN) , 3 (1) pp.25-38
- 2011 [Optimized performance evaluation of LTE hard handover algorithm with average RSRP constraint.](#) International Journal of Wireless & Mobile Networks (IJWMN) , 3 (2) pp.1-16

Conference or Workshop Item

- 2020 [Detection of sweetness level for fruits \(watermelon\) with machine learning.](#) In: **2020 IEEE Conference on Big Data and Analytics (ICBDA)**
- 2019 [Design of narrowband tunable filter for LTE Band 5.](#) In: **2019 IEEE Asia-Pacific Conference on Applied Electromagnetics (APACE 2019)**
- 2019 [Analysis on the impact of outdated channel quality information \(CQI\) correction techniques on real-time quality of service \(QoS\).](#) In: **16th IEEE Student Conference on Research and Development, SCORED 2018**
- 2019 [Performance evaluation of scenerio-aware protocol for producer mobility support in NDN.](#) In: **7th International Conference on Mechatronics Engineering (ICOM 2019)**
- 2019 [Urgency-aware scheduling algorithm for downlink cognitive long term evolution-advanced.](#) In: **2019 IEEE 89th Vehicular Technology Conference (VTC Spring)**
- 2018 [Design of a wireless device for monitoring human critical condition at industrial industrial workplace.](#) In: **2018 7th International Conference on Computer Communication Engineering (ICCCE2018)**
- 2018 [Development of voice control and home security for smart home automation.](#) In: **2018 7th International Conference on Computer Communication Engineering (ICCCE2018)**
- 2018 [Enhancement of electrode design for non-invasive stimulus application.](#) In: **4th IEEE International Conference on Smart Instrumentation, Measurement and Applications (ICSIMA) 2017**
- 2017 [A survey of component carrier selection algorithms for carrier aggregation in long term evolution-advanced.](#) In: **4th IEEE International Conference on Smart Instrumentation, Measurement and Applications (ICSIMA)**

- 2017 [Development of a novel component carrier selection algorithm in long term evolution-advanced \(LTE-A\) with carrier aggregation.](#) In: **14th Student Conference on Research and Development, IEEE (SCORED 2016)**
- 2016 [Performance evaluation on packet loss cost of an enhanced mobile multicast service in proxy network mobility.](#) In: **2016 International Conference on Computer & Communication Engineering ICCCE 2016**
- 2016 [Performance analysis on automated and average channel quality information \(CQI\) reporting algorithm in LTE-A.](#) In: **6th International Conference on Computer and Communication Engineering (ICCCE 2016)**
- 2016 [Performance study of path loss models for LTE-A relay stations.](#) In: **6th International Conference on Computer and Communication Engineering (ICCCE 2016)**
- 2016 [Improving real-time multimedia scheduling in practical mobile cellular channels.](#) In: **2016 6th International Conference on Intelligent and Advanced Systems (ICIAS)**
- 2016 [Basic study of OFDM with multipath propagation model in GNU Platform.](#) In: **IEEE International Conference on Wireless Sensors 2015**
- 2016 [Optimization of 2D sparse array antenna for FMCW radar.](#) In: **2016 10th European Conference on Antennas and Propagation (EuCAP)**
- 2015 [A numerical study on MM-NEMO scheme: impact of rising number of mobile routers and cell residence time.](#) In: **Applied Electromagnetic International Conference (APPEIC 2014)**
- 2015 [Development of spectrum management tool for Malaysia using open-source GIS software.](#) In: **1st Applied Electromagnetic International Conference (APPEIC 2014)**
- 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 [Performance analysis on location update cost of multihoming-based scheme in NEMO.](#) In: **5th International Conference on Computer and Communication Engineering (ICCCE2014)**
- 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 [Human activity recognition for video surveillance using sequences of postures.](#) In: **Third International Conference on e-Technologies and Networks for Development (ICeND2014)**
- 2014 [An improved component carrier selection algorithm for downlink long term evolution advanced.](#) In: **5th International Conference on Computer and Communication Engineering**
- 2014 [Performance of maximum-largest weighted delay first algorithm in long term evolution-advanced with carrier aggregation.](#) In: **IEEE Wireless Communications and Networking Conference, WCNC 2014**
- 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)**
- 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 [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 [A comparative signaling cost analysis of macro mobility scheme in NEMO \(MM-NEMO\) with mobility management protocol.](#) In: **5th International Conference on Mechatronics (ICOM'13)**
- 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 [A study of packet scheduling with mobile cellular channel impairments.](#) In: **International Conference on Computer and Communication Engineering, ICCCE 2012**
- 2012 [A study of packet scheduling with mobile cellular channel impairments.](#) 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)**
- 2011 [HARQ aware scheduling algorithm for the downlink LTE system.](#) In: **4th International Conference on Modeling, Simulation and Applied Optimization (ICMSAO 2011)**
- 2011 [Optimization of handover algorithms in 3GPP long term evolution system.](#) In: **4th International Conference on Modeling, Simulation and Applied Optimization (ICMSAO 2011)**
- 2010 [Delay-Prioritized Scheduling \(DPS\) for Real Time Traffic in 3GPP LTE System.](#) In: **IEEE Wireless Communications and Networking Conference, WCNC 2010**
- 2010 [Impact of CQI feedback rate/delay on scheduling video streaming services in LTE downlink.](#) In: **2010 IEEE 12th International Conference on Communication Technology (ICCT'2010)**
- 2010 [Radio propagation modelling in the downlink LTE.](#) In: **16th Asia-Pacific Conference on Communications (APCC 2010)**
- 2010 [Analysis of hybrid ARQ in 3GPP LTE systems.](#) In: **16th Asia-Pacific Conference on Communications (APCC 2010)**
- 2010 [Resource allocation technique for video streaming applications in the LTE system.](#) In: **19th Annual Wireless and Optical Communications Conference (WOCC 2010)**

- 2010 [Performance analysis of two packet scheduling algorithms in downlink 3GPP LTE system.](#) In: **24th International Conference on Advanced information Networking and Applications Workshops (AINA 2010)**
- 2010 [Requirement of handover modeling in the downlink 3GPP long term evolution system.](#) In: **24th International Conference on Advanced information Networking and Applications Workshops (AINA 2010)**
- 2009 [Performance of well known packet scheduling algorithms in the downlink 3GPP LTE system.](#) In: **IEEE 9th Malaysia International Conference on Communications**
- 2009 [Modeling and simulation of packet scheduling in the downlink long term evolution system.](#) In: **15th Asia-Pacific Conference on Communications (APCC 2009)**
- 2009 [Performance analysis of EXP/PF and M-LWDF in downlink 3GPP LTE system.](#) In: **First Asian Himalayas International Conference on Internet (AH-ICI 2009)**
- 2009 [Opportunistic contention-based feedback protocol for downlink OFDMA systems with mixed traffic.](#) In: **10th Pacific-Rim Conference on Multimedia (PCM 2009)**

**Book
Book Section**

- 2015 [Cluster-based spectrum sensing scheme in heterogeneous network.](#) In: **Theory and Applications of Applied Electromagnetics (APPEIC 2014)** Springer International Publishing Switzerland . ISBN 978-3-319-17268-2 , pp.1-11
- 2011 [Packet scheduling algorithms for long term evolution.](#) In: **Research Issues in Wireless Communication Networking** . IIUM Press . ISBN 978-967-418-149-9 , pp.63-71
- 2011 [Impact of erroneous channel quality information reports on packet scheduling performance.](#) In: **Research Issues in Wireless Communication Networking** IIUM Press . ISBN 978-967-418-149-9 , pp.72-80