
# Ayman Hussein Hajjawi

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## Profile

- A highly motivated multidisciplinary researcher with a diverse range of experience in communications engineering and wireless networks.
- Extensive analysis and design experience on a wide range of academic projects making use of soft tools such as LTE-Sim, Vienna simulator, and MATLAB.
- Research interest: Wireless networks (LTE and LTE-Advanced), QoS in 4G and 5G networks, multi-carrier modulation and multiple access techniques (OFDMA, SC-FDMA), cloud computing, resource management, Internet of Things (IoT), green communications, smart grid communications, and femtocell: design considerations and power control techniques.

## Education

2014 -present **A PhD candidate at The National University of Malaysia (UKM).**
Thesis's title "A Scheduling Algorithm for LTE-Advanced Networks and Smart Grid Communications".
All PhD requirements have been successfully achieved, and the thesis will be submitted soon.

2011 -2013 **MSc-Master in Electronic Engineering (Telecommunications), Technical University of Malaysia Malacca (UTeM), 3.67 CGPA out of 4.**
Core subjects: Wave Propagation, Antenna Design, Broadband Wireless Communications, RF and Microwave Circuit Design, Advanced Digital Signal Processing, Advances Electronic Design, Satellite Communication, and Advanced TCP/IP.

Final Project: Performance Evaluation of the Bandwidth Resource Allocation in IEEE802.16 e & m standards.

2005 -2010 **Bsc in Telecommunications Engineering, IPU, Ittihad University, Syria.**

Core subjects: Communication systems, Signal processing, Antenna Design, Radar Engineering, Mobile Communications, Satellite Communications, Micro waves, Electromagnetic fields, Electronic Engineering, Electrical Circuits, Computer Networks and Digital Communications

Final Project**:** Design GSM Jammer System.

## Publications
## Journals

2015 **Ayman Hajjawi**, Mahamod Ismail, '' A Novel Scheduling Algorithm Based Packet Drop Rate (PDR) for Long Term Evolution-Advanced (LTE-A) Networks'' Plos One Journal, *(Publisher: PLOS)*, **under review**.

2015 **Ayman Hajjawi**, Mahamod Ismail, '' A Scheduling Algorithm Based Self-Learning Technique for Smart Grid Communications over 4G Networks'' Journal of Communications, *(Publisher: Engineering and Technology Publishing)*, **published**.

2015 **Ayman Hajjawi**, Mahamod Ismail, '' QoS-Based Scheduling Algorithm for LTE-A", Research Journal of Applied Sciences, Engineering and Technology, *(Publisher: Maxwell Scientific Publication)*, **published**.

2014 **Ayman Hajjawi**, Mohammad Nour Hindia, Mahamod Ismail, Kamarul Ariffn Noordin and Mohamad Dernaika, '' Teleoperation Scheduling Algorithm for Smart Grid Communications in LTE Network'', Applied Mechanics and Materials Journal *(Publisher: Trans Tech Publications (TTP)*, **published**.

2014 Mohammed Seed Jawad, Widad Ismail, **Ayman Hajjawi**, Othman Abdul Rani, Abadal-Salam T. Hussain, Azahari Saleh, " Review of the State of Art of Tunable Impulse Ultra-Wideband Technology as Integrator for Wireless Sensing and Identifications Short-Range Networks", Wireless Sensor Network Journal *(Publisher: Scientific Research Publishing.*. **published**

2014 M.S Jawad, Othman A. R, Z. Zakaria, **Ayman Hajjawi**, S. Azahari, and Widad Ismail 'Link Budget Design and Performance Evaluation of Tunable Pulse-based Ultra Wideband to Support the Integration of Wireless Sensing and Identification Infrastructures'', Journal of Sensor Technology *Publisher: Scientific Research Publishing.*. **Published**

**Conferences**

2015 **Ayman Hajjawi** and Mahamod Ismail, Nor Fadzilah Abdullah, Nordin Ramli " A Novel Scheduling Scheme Based on Generic Priority Service for Smart Grid Applications", IEEE International Conference on Communications (IEEE ICC'16), 23-27 May 2016, Kuala Lumpur, Malaysia 2016, publisher "**IEEE**", **Under review**.

2015 **Ayman Hajjawi** and Mahamod Ismail," A Novel Scheduling Algorithm Based Class-Service Using Game Theory for LTE Network", 2015 IEEE 12th Malaysia International Conference on Communications (MICC 2015), 23-25 November 2015, Kuching, Sarawak, Malaysia 2015, publisher "**IEEE**", **in press**.

2015 **Ayman Hajjawi** and Mahamod Ismail," Implementation of Three Scheduling Algorithms in the Smart Grid Communications over 4G Networks", 2015 International Conference on Space Science and Communication (IconSpace2015), 10-12 August 2015, Langkawi Lagoon Resort, Malaysia 2015, publisher "**IEEE**", **published.**

2015 **Ayman Hajjawi** and Mahamod Ismail." A Novel Scheduling Algorithm with Carrier Aggregation for LTE-A", Third International Conference On Advances In Computing, Electronics And Communications - ACEC 2015, 10-11 October 2015, Zurich, Switzerland, **accepted.**

2015 **Ayman Hajjawi**, Mahamod Ismail, Mohammad Nour Hindia, Mohammed Seed Jawad, Sameh Musleh." Integration Facilitation of the Scheduling Algorithms in the Smart Grid communications over 4G Networks", 2015, **published.**

2014 **Ayman Hajjawi,** Mohammad Nour Hindia, Mahamod Ismail, Kamarul Ariffn Noordin and Mohamad Dernaika, '' Teleoperation Scheduling Algorithm for Smart Grid Communications in LTE Network". The 3rd International Conference on Electronics, Mechatronics and Automation ICEMA 2014. August 22-23, 2014. Dubai, UAE, **published.**

**Rewards**

2016 I have been selected as the best presenter of 3 Minutes Thesis (3MT) competition at UKM University (Engineering).

**Projects undertaken**

**2012 -21013 Msc final year project: Performance Evaluation of the Resource Allocation in IEEE802.16 e & m standards, UTeM University**

This project concentrates on the downlink resource allocation strategies IEEE802.16 e (WiMaX) and IEEE802.16m standards. Based on two well-known technologies namely Minimum Allocation and Round Robin we proposed an algorithm which could serve real time applications with high priority and better quality of services and give non-real time applications chance to reduce their

packets drop. The simulations results validated by MATLAB. The results showed that there is less packet drop in real time and non-real time applications. Subsequently the throughput per service and the total throughput of the system gave higher performance. Furthermore, this research analyzed the impact of the proposed algorithm on both IEEE802.16e and IEEE802.16m in terms of resource allocation, average delay, packet drop, and total throughput of the whole system to show which one is affected by the proposed algorithm more than the other.

**2009-2010** **Bsc final year project: Design GSM Jammer System**

In this project we designed a jammer system which is able to send jammer signals to GSM signals and prevent users from using their mobiles. This system takes a place in some places in which mobile use is not allowed. The Simulink for this project was done by MATLAB.

**Languages**

Arabic native

English fluent

Malay beginner

Turkish beginner

**Sport**

Swimming, Gym

**Notice**

Country of origin: Syria

Date of birth: 1987

**Reference Available on Request**