Curriculum Vitae

Dr. Abdulkarem Hussein Mohammed Almawgani

Nationality	Yemen
Marital status	Married
Number of dependents	6
Passport number	10214005
Date/place of birth	21 April 1979 / Yemen
Current Position	Associate Professor Development and Quality Coordinator Electrical Engineering Department, College of Engineering, Najran University, Najran, KSA.
Current address	Najran, kingdom of Saudi Arabia
Contact information	▪ Mobile: 00966534607367 ▪ email: 1) almawgani2003@gmail.com 2) almawgani2003@hotmail.com
Languages	• Arabic (mother tongue) • English (written, Reading, and spoken)

ACADEMIC QUALIFICATION

- **2008–2011**: PhD in Wireless and Mobile Systems, (Thesis Title: Reed Solomon coded cooperation scheme in mobile communication networks and application), Universiti Sains Malaysia, Electrical and Electronics School, Penang, Malaysia, 2008-2011.
  - CGPA: 4.0/4.0; Rating: Excellent
  - Awarded International Graduate Research Fellowship (IGRF), Universiti Sains Malaysia, 2008–2011.

- **2007–2008**: MSc in Electronic System Design Engineering, Mixed Mode, (Thesis Title: Development of Multiple Descriptions Algorithm for Image Transmission in Wireless Channels), Universiti Sains Malaysia, Electrical and Electronics School, Penang, Malaysia, 2007-2008.
  - CGPA: 3.67/4.0; Rating: Excellent

- **1998–2003**: BEng in Electrical Engineering (Major: Information Engineering), Baghdad University, Baghdad, Iraq, 1998-2003.
  - CGPA: 82%; Rating: Very Good, 1st class

CAREER OBJECTIVE

To get a professional position in an established organization that offers enriching experience, scientific research, training, and career enhancement in the fields of Communication Engineering especially in wireless and mobile systems, cooperative communication and electronic systems design and applications as the main interest.

APPOINTMENTS

- 29/3/2020 – present

  : **Associate Professor**
  Electrical Engineering Department, College of Engineering, Najran University, Najran, KSA.

- 26/1/2015 – Present

  : **Development and Quality Coordinator**
  Electrical Engineering Department, College of Engineering, Najran University, Najran, KSA

- 26/1/2015 – 28/3/2020

  : **Assistant Professor**
  Electrical Engineering Department, College of Engineering, Najran University, Najran, KSA.

- 1/8/2011 – 25/1/2015

  : **Assistant Professor**
  Electrical Engineering Department, College of Engineering, University of Science & Technology, Yemen.

- 1/8/2012 – 1/8/1/8/2014

  : **Assistant Professor**
  Electrical Engineering Department, College of Engineering, Sana'a University, Yemen.

- 1/8/2009 - 1/6/2011

  : **Teaching Assistant**
  Department of Electrical and Electronics, Engineering Faculty of Engineering, Universiti Siains Malaysia.

- 1/2/2004 – 20/6/2007

  : **Lecturer**
  Electrical Engineering Department, College of Engineering, University of Science & Technology, Yemen.

RESEARCH INTEREST

- Cooperative Communication and MIMO
- Wireless Detection Algorithms
- Channel Coding and information coding
- Signal Processing for communication
- Metamaterial Antennas and Filters
- Electronic Systems Design and Applications
- Smart System Design
- Image Processing for Communication
- IOT

WORK HISTORY AND EXPERIENCE

Duration (from – to)	Position Title	Organization	Job Responsibilities
March 2020 to Present	Associate Professor	Electrical Engineering Department, College of Engineering, Najran University, Najran, KSA.	- Teaching. - Development and Quality Coordinator. - Supervising graduation project students. - Providing intensive tutorial for students - Academic advisory committee for students. - Producing research proposals, journal articles and conference presentations. - Supervising the committee for preparing the study plan for the master's program.
Jan. 2015 to Present	Development and Quality Coordinator	Electrical Engineering Department, College of Engineering, Najran University, Najran, KSA.	- Follow-up quality reports and activities of committees in the academic department and help them carry out their functions. - Direct supervision of academic accreditation process for ABET and national accreditation and retain. - Review academic accreditation requirements. - Implementation of the requirements of quality management system for university.
Jan. 2015 to March 2020	Assistant Professor	Electrical Engineering Department, College of Engineering, Najran University, Najran, KSA.	- Teaching. - Development and Quality Coordinator. - Supervising master thesis and graduation project students. - Providing intensive tutorial for students - Academic advisory committee for students. - Producing research proposals, journal articles and conference presentations. - Supervising the committee for developing and updating the study plan for the undergraduate program.
1/8/2011 to 25/1/2015	Assistant Professor	Electrical Engineering Department, College of Engineering, University of Science & Technology, Yemen.	- Teaching. - Supervising graduation project students. - Providing intensive tutorial for students - Academic advisory committee for students. - Producing research proposals, journal articles and conference presentations. - Involved in Quality administrative tasks.
1/8/2012 to 1/8/1/8/2014	Assistant Professor	Electrical Engineering Department, College of Engineering, Sana'a University, Yemen.	- Teaching.
1/8/2009 to 1/6/2011	Teaching Assistant	Department of Electrical and Electronics Engineering, Faculty of Engineering, Universiti Siains Malaysia.	- Providing tutorial for my supervisor courses students - Electronics Labs assistant.
1/2/2004 to 20/6/2007	Lecturer	Electrical Engineering Department, College of	- Teaching. - Labs Supervision. - Prepare Labs manuals.

		Engineering, University of Science & Technology, Yemen.	

TEACHING

Assigned courses in Najran University, KSA
- Engineering Mathematics
- Electromagnetism I
- Electrical Circuit Analysis
- Principles of Communication Systems
- Graduation Project I
- Graduation Project II
- Field Training
- Electrical Circuits
- Signals and Systems Analysis
- Digital Signal Processing
- Computer Applications in Electrical Engineering
- Digital Logic Design
- Introduction to Microprocessor and Microcontroller

Assigned courses in Science and Technology University, Yemen
- Electrical Circuits Lab
- Computer Programming Lab
- Signals and Systems Analysis
- Digital Signal Processing (Postgraduate Level)
- Engineering Mathematics
- Computer Applications in Electrical Engineering
- Data Communications and Networks
- Electromagnetism
- Communication Engineering
- Wireless Communications
- Electronics
- Digital Image Processing
- Senior Design Project
- Digital Communications
- Digital Logic Design
- IOT and Embedded System

Assigned courses in Sana'a University, Yemen
- Digital Signal Processing
- Introduction to Microprocessor and Microcontroller
- Digital Image Processing

Students' Supervision

MSc Theses/Projects
1. An Image Steganography Algorithm for Hiding Data Based on HDWT, LZW and OPAP, Ali Alashwal, 2014
2. An Outage Probability in Cooperative MIMO Under Slow Fading Channel, Motea Alsamawi, 2014

Undergraduate Final Year Projects
1. Date Fruits Classification using Deep Learning Convolutional Neural Network, 2020-2021
2. Monitoring System for Industrial Automation Using Zigbee Technology, 2020-2021
3. Design of Fan Speed Regulation and Fire Alarm System for a Compartment, 2019-2020
4. Design and Implementation of a Smart System for Wrong Parking Detection Using Image Processing Technique, 2019-2020
5. Monitoring System for Industrial Automation Using Zigbee Technology, 2019-2020
6. Design of Electronic Gates for Speed Control of Vehicles Using Image Processing Technique, 2018-201
7. Smart System for Parking Space Detection Using Image Processing, 2018-2019
8. Condition Monitoring of Centrifugal Pump Through Vibration Analysis Techniques, 2017-2018
9. Design and Implement Automatic System for Smart Parking to Monitoring Cars and incorrectly Parking, 2017-2018
10. Design and Implementation of Automatic Smart Tank Water, 2017-2018
11. The System Monitoring of Najran Dam, 2016-2017
12. Flood Early Warning System in Najran Dam, 2016-2017
13. Design and Implementation of New Vehicle Tracking System Using Arduino, GPS, GSM and Jammer, 2015-2016
14. Design and Planning of 4G Mobile LTE-Advanced Networks and Measurements of EM Radiations, 2015-2016

RESEARCH GRANTS

No.	Title	Role	Sponsor Body	Amount (RM)	Year/Status
1	Hiding confidential data using hybrid image steganography method with LZW and genetic algorithm	Principal Investigator (PI)	Ministry of Education, KSA	100, 000 SAR	2021-2022 (On-going)
2	Metamaterial-based wearable flexible elliptical UWB antenna for WBAN and breast imaging applications	Co-PI	Ministry of Education, KSA	100, 000 SAR	2019-2020 (Completed)
3	Omega-shaped tag antenna with inductively-coupled feeding using u-shaped stepped-impedance resonators for RFID applications	Co-PI	Ministry of Education, KSA	100, 000 SAR	2018-2019 (Completed)

WORKSHOPS AND TRAINING COURSES

Certifications	Detail	Date/Year
ETEC-Based Scales of Program Self Evaluation	Deanship of Development and Quality - Najran University	2021/02/24
Academic Program Preparation for NCAAA Accreditation Team Visit	Deanship of Development and Quality - Najran University	2021/02/03
Effective academic communication skills	Deanship of Development and Quality - Najran University	2019/11/17
Study plans preparation system at Najran University	Deanship of Development and Quality - Najran University	2019/1/14
How to write a competitive research proposal	Deanship of Development and Quality - Najran University	2019/2/19

Saudi Qualifications Framework Concept-Registration	Deanship of Development and Quality - Najran University	2019/2/13-12
Program description according to NCAAA developed standards	Deanship of Development and Quality - Najran University	2019/1/21-20
Course description and field experience workshop	Deanship of Development and Quality - Najran University	2019/2/25-25
Using performance indicators to close quality loops	Deanship of Development and Quality - Najran University	2019/3/7-6
Quality requirements for student guidance and counseling services	Deanship of Development and Quality - Najran University	11-12/3/2019
Periodic reports of programs, courses and field experience	Deanship of Development and Quality - Najran University	2019/4/1-3/31
Evaluation of learning outcomes in accordance with the requirements of the developed standards NCAAA	Deanship of Development and Quality - Najran University	2019/4/4-3
Preparing a self-study report for the program	Deanship of Development and Quality - Najran University	2019/4/16-15
International Publishing of Scientific Research	Deanship of Development and Quality - Najran University	2018/2/12
Preparing self-assessment and self-study for academic accreditation	Deanship of Development and Quality - Najran University	2017/2/27-26
Enhance the effectiveness of the personal quality of the faculty member	Deanship of Development and Quality - Najran University	2017/3/6
Standardized System for Measurement of Learning Outcomes	Deanship of Development and Quality - Najran University	2017/3/14-13
Managing scientific research using the One Note program	Deanship of Development and Quality - Najran University	2017/11/15
Cloud computing applications in education	Deanship of Development and Quality - Najran University	2017/12/11
Course description and report	Deanship of Development and Quality - Najran University	2016/2/17-16
Rubrics Student Assessment System	Deanship of Development and Quality - Najran University	2016/12/27-26
Program Specification Document (PSD)	Science &Technology University (UST-Y)	2013/7/11
Course Syllabus and Curriculum	UST-Y	2013/7/8
Evaluation of Academic Program Outcomes	UST-Y	2013/7/4
Designing the Academic Program According to ABET Requirement	UST-Y	2/7/2013
Prepare Program Specification Document for Communications Engineering	UST-Y	1/6/2013
Thesis editing using LaTex	Universiti Sains Malaysia (USM)	2011
Thesis editing using word 2010	USM	2011
Post-Graduate Research Colloquium 2010	USM	3/7/2010
Occupational Safety and Health Course for Post Graduate Students	USM	28/2/2009
Write and get published workshop	USM	--/11/2008
Writing a scientific research article	USM	--/11/2008
Preparing a research proposal	USM	--/11/2008
Stress management workshop	USM	25/11/2008
Preparing self-assessment and self-study for academic accreditation	Deanship of Development and Quality - Najran University	2017/2/27-26
Teaching Technicians	UST-Y	23/5/2006

Teaching methods for undergraduate stage at the quality assurance management	UST-Y	1/7/2005-1/8/2005
Computer Networks	UST-Y	1/7/2004-31/7/2004
Database (SQL, Developer oracle)	Baghdad University	1/7/2002-31/7/2002

SKILLS

- **Microsoft Office**
- **Programming Language**
  - MATLAB and Simulation
  - C and C++
  - Ardunio
  - SQL
  - Assembly language
  - Electronics Simulation Programs
- **Session Chair in the international conference on Advances in Computational Technologies in Science and Engineering (ACTSE-2021).**

LIST OF SELECTED PUBLICATIONS

Google scholar: https://scholar.google.com/citations?hl=en&user=5GjnJeAAAAAJ

[1] **A. H. M. Almawgani**, A. R. H. Alhawari, Ayman Taher Hindi, Waled Hussein Al-Arashi and A. Y. Al-Ashwal, "Hybrid image steganography method using Lempel Ziv Welch and genetic algorithms for hiding confidential data", Multidimensional Systems and Signal Processing, in press.

[2] Muhammad Irfan et al, "Numerical Analysis of Non-aligned inputs M-type micro-mixers with different shaped obstacles for biomedical applications", Journal of Process Mechanical Engineering, in press

[3] Adam R. H. Alhawari, **A. H. M. Almawgani**, Hisham Alghamidi, Ayman Taher Hindi, Azzan Alyami, Abdulrahman Alyami, Yahya Aldaweis, Mahdi Algannas and Abdultawab Qahtan, "Energy Efficient and Privacy Protection Window System for Smart Home Using PDLC Glass", International Journal of Electrical and Computer Engineering, in press.

[4] A. R. H. Alhawari, **A. H. M. Almawgani**, A. T. Hindi, H. Alghamdi, and T. Saeidi, "Metamaterial-based wearable flexible elliptical UWB antenna for WBAN and breast imaging applications," AIP Adv., vol. 11, no. 1, p. 015128, 2021, doi: 10.1063/5.0037232.

[5] A. R. H. Alhawari, **A. H. M. Almawgani**, N. A. Alsaleh, S. A. Alyami, and A. M. Aslloum, "An Efficient Monitoring System for Early Fire Automatic Detection," ARPN J. Eng. Appl. Sci., vol. 16, no. 1, pp. 57–60, 2021.

[6] **A. H. M. Almawgani** et al., "Smart and efficient system for the detection of wrong cars parking," Bull. Electr. Eng. Informatics, vol. 10, no. 4, pp. 1968–1978, 2021, doi: 10.11591/eei.v10i4.2634.

[7] A. R. H. Alhawari et al., "Compact elliptical UWB antenna for underwater wireless communications," Micromachines, vol. 12, no. 4, 2021, doi: 10.3390/mi12040411.

[8] **A. H. M. Almawgani**, M. A. Alshorman, M. A. Alyami, H. M. Alhmammi, D. S. Almahri, M. A. Alkhuraym and Electrical, "Smart monitoring system of Najran dam," Int. J. Electr. Comput. Eng., vol. 10, no. 4, pp. 3999–4007, 2020, doi: 10.11591/ijece.v10i4.pp3999-4007.

[9] A. R. H. Alhawari, **A. H. M. Almawgani**, H. Alghamdi, A. T. Hindi, T. Saeidi, and A. Ismail, "Omega-shaped tag antenna with inductively-coupled feeding using U-shaped stepped-impedance resonators for RFID applications," Appl. Comput. Electromagn. Soc. J., vol. 35, no. 8, pp. 951–961, 2020, doi: 10.47037/2020.ACES.J.350815.

[10] **A. H. M. Almawgani**, "Safety Measurement of Electromagnetic Field Radiation from Mobile Stations at a Najran City in KSA," Glob. J. Eng. Sci. Res. Manag., vol. 6, no. 3, 2019, doi: 10.5281/zenodo.2619223.

[11] **A. H. M. Almawgani**, "Design of Real Time Smart Traffic Light Control System," in ISER 108th International Conference, Mecca, Saudi Arabia, 23rd-24th February 2018, 2018, pp. 51–55.

[12] M. Omar et al., "Design and Development of a Smart Parking System," J. Autom. Control Eng., vol. 6, no. 2, pp. 66–69, 2018, doi: 10.18178/joace.6.2.66-69.

[13] **A. H. M. Almawgani**, "Design of Real Time Smart Traffic Light Control System," Int. J. Ind. Electron. Electr. Eng., vol. 6, no. 4, pp. 43–47, 2018.

[14] **A. H. M. Almawgani**, M. Alsamawi, and H. Al-arashi, "An Outage Probability in Cooperative MIMO under (Alamouti, Orthogonal and Quasi Orthogonal STBC) Slow Fading Channel," Wirel. Pers. Commun., vol. 97, no. 4, pp. 5277–5287, 2017, doi: 10.1007/s11277-017-4778-y.

[15] A. R. H. Alhawari, A. F. Alshehri, M. A. Alwadi, F. A. Blih, **A. H. M. Almawgani**, and A. S. Alwadie, "Design and Development of Electronic Cooling and Heating Pad for Hot and Cold Therapy," ARPN J. Eng. Appl. Sci., vol. 12, no. 24, pp. 7282–7289, 2017.

[16] M. Alsamawi, **A. H. M. Almawgani**, and W. H. Al-arashi, "An Outage Probability in Cooperative MIMO Under Slow Fading Channel," J. Sci. Technol., no. 1, pp. 12–20, 2016, doi: 10.20428/JST.21.1.2.

[17] A. Y. Al-Ashwal, **A. H. M. Almawgani**, and W. H. Al-Arashi, "An Image Steganography Algorithm for Hiding Data Based on HDWT, LZW and OPAP," J. Sci. Technol., vol. 20, no. 1, 2015.

[18] Al-arashi, **A. H. M. Almawgani**, and W. H. Al-arashi, "An Image Steganography Algorithm for Hiding Data Based on HDWT , LZW and OPAP," J. Sci. Technol., no. 20, pp. 10–22, 2015.

[19] **A. H. M. Almawgani** and M. F. M. Salleh, "Outage probability analysis of three-user reed-solomon coded cooperation scheme for wireless slow fading channel," Wirel. Pers. Commun., vol. 72, no. 2, 2013, doi: 10.1007/s11277-013-1047-6.

[20] **A. H. M. Almawgani** and M. F. M. Salleh, "Partner coupling algorithm for mobile coded cooperation technique," in Communications (APCC), 2011 17th Asia-Pacific Conference on, 2011, pp. 659–664.

[21] **A. H. M. Almawgani** and M. F. M. Salleh, "Coded cooperation using Reed Solomon codes in slow fading channel," IEICE Electron. Express, vol. 7, no. 1, pp. 27–32, 2010, doi: 10.1587/elex.7.27.

[22] **A. H. M. Almawgani** and M. F. M. Salleh, "Outage probability of coded cooperation for slow fading channel," IEICE Electron. Express, vol. 7, no. 18, 2010, doi: 10.1587/elex.7.1388.

[23] A. Karem, **A. H. M. Almawgani**, M. Fadzli, and M. Salleh, "Performance comparison between low-density parity-check and reed-solomon codes using wireless image transmission system," J. Teknol., vol. 50, no. D, pp. 59–71, 2009.

[24] **A. H. M. Almawgani** and M. F. M. Salleh, "Soft Decision Scheme for Multiple Descriptions Coding over Rician Fading Channels This paper presents a new MDC scheme for robust wireless data," Int. J. Image Process., no. 3, pp. 12–16, 2009.

[25] **A. H. M. Almawgani** and M. F. M. Salleh, "RS coded cooperation with adaptive cooperation level scheme over multipath Rayleigh fading channel," 2009, doi: 10.1109/MICC.2009.5431555**.**

REFEREES

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