Hussein Nadhem Fadhel

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/ Electronics and Control Engineering Department
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EDUCATION

Ph.D. - University of Mississippi (2015-2019)

Ph.D. in engineering science - electrical engineering with emphasis in communications and information theory.

M.S. - University of Mississippi (2010-2012)

M.S. in engineering science with emphasis in telecommunications. (Via a Fulbright scholarship)

B.Sc. - Foundation of technical education – college of technology / Kirkuk (2003 - 2007)

B.Sc. degree in electronics and control engineering. (Graduated top of class)

EXPERIENCE

- Instructor at the labs of the Technical Engineering College-Kirkuk 2008 - 2010.
- Research assistant at the University of Mississippi 2010-2012.
- Faculty member and lecturer at the Technical Engineering College-Kirkuk 2012 -2015.
- Lecturer, research assistant, and teaching assistant at the University of Mississippi 2015 - 2019.
- Faculty member and lecturer at the Technical Engineering College of Kirkuk-NTU 2019-present.

MENTORING AND ADVISING

- Mentored seven undergraduate student groups on their graduation projects.
- Advising two MsC. students.

Software Skills

C/C++, Python, Matlab, tinyOS, Packet Tracer, html, CSS, Arduino, Linux, and Window OS.

RESEARCH INTERESTS

- Wireless communication, channel coding, network latency, LPWAN, and environment monitoring wireless sensor networks.
- Member of the Iraqi governmental national committee to reduce CO2 emissions and conserve energy.

Presentations

- On Unequal Error Protection Raptor Codes, 2015 IEEE Global Conference on Signal and Information Processing (GlobalSIP).
- Performance of Raptor Codes on the BIAWGN Channel in the Presence of SNR Mismatch, 2020 IEEE Wireless Communications and Networking Conference (WCNC).
- First keynote speaker at 1st International Conference of Applied Computing & Smart Cities (ICACS21).
- Look-up Table Reduction for Subcarrier Activation in OFDM with Index Modulation Systems, 2nd International Multi-Disciplinary Conference Theme: Integrated Sciences and Technologies, (IMDC-IST).
- Utilizing LPWAN Technologies and Renewable Energy to Address Issues Facing Rivers Water in Iraq, Mercy Corps - Activate Program 2023.
- keynote speaker at 2nd International Conference of Applied Computing & Smart Cities (ICACS24).

HONORS AND AWARDS

- Fulbright scholarship to study MsC. (2010-2012).
- Gamma Beta Phi honor society (2011).
- Excellency certificate from NTU president (2020).

MANAGEMENT EXPERIENCE

- Head of the Electronics and Control Eng. Techniques Dept. 2024-present.
- Member of the higher committee of quality management of NTU university
- Member of the management team of two international academic conferences - 2021 & 2022. Responsibilities include developing and maintaining the conference website, managing the process of peer review through the EDAS system, and organizing the conference.
- Regional consultant of a UK based tech company 2021-present.

- Member (volunteer) of a local organization for relief and development

NETWORKING EXPERIENCE

- CCNAv7: Introduction to Networks (Instructor).
- CCNAv7: Switching, Routing, and Wireless Essentials (Instructor).
- Internal auditor at the TECK college of NTU university
- AWS cloud computing.
- AWS IoT.
- Arduino IoT.
- LoRaWAN networks.
- Designing and implementing smart irrigation networks.
- Designing and implementing sustainable afforestation networks.
- Designing and implementing buildings safety networks.