Ahmad B. Al-Khalil, PhD

DOB: 02nd August 1979.
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Profile

A specialist Assistant Professor in Computer Science with a PhD in computer communication. An expert in computer networks, IoT, information security, cybersecurity and E-learning, and has an exemplary management record in organizing conferences and E-learning platforms. A Research Engineer, with an adept facility to manage the whole project life cycle; creating projects from concept to completion whilst capturing, analysing and documenting requirements to support effective communication and successful delivery. Both a team player and an independent thinker, with valuable analytical, problem solving and decision-making skills and a genuine passion for the new technologies.

Higher Education

Doctorate of Philosophy (PhD) in Computing - University of Northampton, UK. (2016).
Master of Science (MSc) in Innovative Computing - University of Buckingham, UK. (2009).
Postgraduate Certificate in Computing (PGCE) - University of Buckingham, UK. (2008).
Bachelor of Science (BSc) in Computing - University of Mosul, Iraq. (2003).

Skills and Expertise

- Experience of maintaining professional ethical and responsible interactions with students, faculty and staff.
- Experience of leading the University Computing staff emphasizing the importance of the professional relationship between students and staff.
- Experience in helping students to engage and develop their critical thinking skills with above average results.
- Advanced problem solving and numeracy skills that were developed from teaching and seminars.
- Skilled communicator with strong people skills, sensitive to students' specialised and changing needs.
- Accomplished communication skills, both written and verbal, developed through numerous years of teaching and learning.
- Experience directing research students on their dissertation projects.
- Able to make significant contributions towards university objectives.
- Enhanced research and Information management skills by developing and organising principles to effectively interrupt and evaluate data.
- Solid experience demonstrating good practice in developing modules.

Publications

Books
- V-SCME: A Developed Channel Model and Coding for V2V Communication. LAP Lambert Academic Publishing (2018).

Book Chapter
- Utilising SCM – MIMO channel model based on V-BLAST channel coding in V2V communication. Springer (2015).

Journal Publications

- Utilizing Blockchain for IoT Privacy through Enhanced ECIES with Secure Hash Function. Future Internet MDPI, (2022).
- Multi-stage Error Control Technique for Improving 3DV Transmission over OFDM Wireless Systems Multimedia Tools and Applications, (2022).
- An Enhanced Algorithm for Improving Real-Time Video Transmission for Tele-Training Education. Multimedia Tools and Applications, (2021).
- Performance Improvement of Ber Based on Multipath Forward Error Correction Diversity in Wireless Communication Channels. Journal of University of Duhok (2020).
- Efficient Mechanism for Securing Software Defined Networking Against ARP Spoofing Attack. Journal of University of Duhok (2019).

Conference Papers
- A Real Time Parking Reservation System Based on Vehicular Cloud Computing. IEEE International Conference on Computer Science and Software Engineering. (2020).

- A Secure Mechanism to Prevent ARP Spoofing and ARP Broadcasting in SDN. IEEE International Conference on Computer Science and Software Engineering. (2020).

- TQAIOD: A Backup Technique to Surpassing the Internet Outage. IEEE International Conference on Computer Science and Software Engineering. (2020).

- Impact of Alamouti Space – Time Block Coding on the Performance of Vehicle-to-Vehicle Communication. IEEE International Conference on Advanced Science and Engineering. (2018).

- Performance of BCH and RS Codes in MIMO Systems Using MPFEC Diversity Technique. IEEE International Conference on Advanced Science and Engineering. (2018).

- A Predefined Channel Coefficient Library for Vehicle – to - Vehicle communication. International Workshop on Reliable Networks Design and Modelling. (2015).

- Feasibility study of utilising SCM – MIMO channel model in V2V communication. IEEE International Workshop on Communication Technologies for Vehicles (Nets4Cars-Fall). (2014).

- Enhancing the PHY layer in V2V communication using OFDM – MIMO techniques. PGNET Liverpool – UK (2013).

Work History

ASS. PROF. IN COMPUTER SCIENCE   June 2020 – Date

University of Duhok and Cihan University Duhok

Main Duties and Responsibility

Teaching

- Teaching at undergraduate year 4 Internet of Things IoT, Wireless Communication, Information Security and Cybersecurity.

- Teaching at undergraduate year 2 English for IT.

- Teaching at undergraduate year 1 Logic Design.

- Supervising group projects for year 4 undergraduate students.

- Teaching at graduate level (MSc) Mobile and Wireless Communication for MSc degree students.

- Supervising graduate students' projects for MSc students.

- Developing and delivering a strategic vision for the Universities technical/research and related commercial activities, involving: Idea's development; forward planning; analysis and evaluation; problem solving and using broad business development skills to drive forward investment.

Scientifics and Administrations Committees

- Head of computer communication and security research group.
- Head of postgraduate examination committee.
- Head of the higher committee at University of Duhok for conferences applications evaluation.
- Member of scientific committee.
- Member of postgraduate committee.
- Member of editorial board (journal of University of Duhok).
- Member of teaching quality assurance committee.

LECTURER IN COMPUTER SCIENCE   May 2016 – June 2020

University of Duhok

Main Duties and Responsibility

- Teaching at undergraduate level wireless and advanced network technologies and IoT.
- Teaching at graduate level mobile and wireless communication for MSc degree students.
- Supervising or assist with supervision of undergraduate and graduate students.
- Carrying out research and produce publications.
- Contribute to the development, planning and implementation of a high-quality curriculum.
- Assisting in the development of learning materials, preparing schemes of work and maintaining records to monitor student progress, achievement and attendance.

- Participating in departmental and faculty seminars aimed at sharing research outcomes and building interdisciplinary collaboration within and outside the department.
- Participating in the development, administration and marking of exams and other assessments.
- Participating in the administration of the department's programmes of study and other activities as requested.

ACADEMIC RESEARCHER IN COMPUTER SCIENCE   Dec 2011 – Dec 2015
University of Northampton - UK

Main Activities and Responsibility

- **Vehicular Communication**: 5 years investigation of VANET channel, performance, and statistical modelling as well as routing and traffic analysis. Carried-out partially in cooperation with Kier-WSP, Northampton County Council and EU consortium Nets4Cars.

- Teaching at graduate level Mobile and wireless communication for MSc degree students (Practical sessions).
- Attended and contributed to several professional conferences and workshops.

ASS. LECTURER IN COMPUTER SCIENCE   Mar 2009 – Oct 2011
University of Duhok

Main Activities and Responsibility

- Teaching at undergraduate level Computer network; Web technologies; Information security in communication.
- Supervising undergraduate graduation projects.
- Administration and mentoring students in relevant computer science fields.
- Assessment of students' work and progress.

INSTRUCTOR IN COMPUTER SCIENCE   Jul 2004 – Jul 2007
University of Mosul & University of Duhok

Main Activities and Responsibility

- Teaching assistant of Computer network; Web technologies; Computer logic design.
- Administrator of the intranet.
- Designer of databases for the management unit and the library.

Relevant Skills and Training

- **Cloud Computing and Virtualization Application**. Huawei Tech Talk 2020.
- **IoT Applications and Use Cases**. Huawei Tech Talk 2020.
- **Iraq E-Learning Professional Training Program**. IREX and US Embassy Baghdad 2020.
- **GIZ and University of Duhok Training and Workshops** in Policy Advice for Improving water supply and sanitation services to the Ministry of Municipalities and Tourism in KRG 2020.
- **AAT Level 1 Award:** AAT level 1 award in Accounting (QCF). The association of accounting technicians in the UK 2017.

- **AAT Level 1 Award:** AAT level 1 award in Bookkeeping (QCF). The association of accounting technicians in the UK 2017.
- **AAT Level 1 Award:** AAT level 1 award in Computerised Accounting (QCF). The association of accounting technicians in the UK 2017.
- **Higher Education Survival Plus:** University's staff development scheme workshop offered by the institute of learning and teaching in HE. University of Northampton 2014.
- **Diversity in The Workplace:** E-learning course that covers the most up to date equalities legislation and enables staff to gain an understanding of the broader equality and diversity issues facing FE institutions. University of Northampton 2014.
- **Advanced OPNET Modeller:** A training course for Operations Network Optimised Network Engineering Tools software that provided performance management for computer networks and applications. OPNET Technologies 2012.
- **Faculty Academic Capacity Building:** University's Staff development scheme course offered by the training and development centre. University of Duhok 2010.
- **CISCO Certificate Network Associate CCNA:** A course for network specialists, network administrators and network support engineers. University of Duhok 2010.

Membership of Professional Bodies

1- Professional Member of the Association for Computing Machinery **ACM**.

2- Professional Member of the British Computer Society **BCS**.

3- Member of the Institute of Engineering and Technology **IET**.

4- Member of the Institute of Electrical and Electronics Engineers **IEEE**.