

Moath H. Alsafasfeh

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Personal Information

Born March 20th, 1986 Tafila City, Jordan

Citizenship: Jordanian

Married Status: Married, 3 Children

Education

Ph.D. Electrical and Computer Engineering

Sep 2013 – April 2017

**Western Michigan University
(WMU)**

- **Dissertation Title:** Multiprocessing Real Time Vision Based System for Condition Monitoring in Solar Panels.
- **Evaluation:** Excellent

MSc. Communication and Computer Engineering

June 2010 – July 2011

**National University of Malaysia
(UKM)**

- **Thesis Title:** Monitoring and Blocking Websites Accessing Using Snort Rules.
- **Evaluation:** Excellent

BSc. Computer Engineering

Sep 2004 – Feb 2009

Mutah University

- **Graduation Project:** Estimation of Network Performance based on Active Measurements.
- **Evaluation:** Good

Work History

- June 2017 – Present** **Al-Hussein Bin Talal University, Jordan.**
Assistant Professor, Computer Engineering Department.
Job Description: Teaching Electrical and Computer Engineering courses for undergrad students; Logic Circuits Design, Computer Architecture, Embedded Systems, Digital Image Processing, Probability and Random Processes, and Engineering Applications. In addition, teaching courses for Master students in Computer and Networking Engineering program; Modeling and Simulation, Advanced Computer Architecture, and Multimedia Communications and Networking.
- Sep 2015 – April 2017** **Western Michigan University, USA.**
Math tutor, Department of Mathematics.
Job Description: Full time Math Tutor for Finite Mathematics and its Application for undergrad students.
- May 2014 – June 2015** **Western Michigan University, USA.**
Research Assistance, Department of Electrical and Computer Engineering.
Job Description: Part time Research Assistance for Towards Effective Multicore Processing in Automotive Powertrain Control Systems.
- Jan 2014 – May 2014** **Western Michigan University, USA.**
Lab Assistance, Department of Electrical and Computer Engineering.
Job Description: Part time Lab Assistance in Digital Image and Signal Processing Laboratory (DISPLAY).
- Sep 2011- August 2013** **Al-Balqa Applied University, Jordan.**
Lecturer, Department of Applied Sciences
Job Description: Full time lecturer for Logic Design, Microprocessors Design, Computer Architecture, Operating Systems, Computer Networks, and Computer Security.
- Sep 2010 – April 2011** **National University of Malaysia, Malaysia.**
Research Assistance, Department of Electrical, Electronics and Systems Engineering.
Job Description: Part-time Research Assistance for Exploring and Improving Network Security Systems.
- March 2010 – June 2010** **Jordanian Engineers Association, Jordan.**
Administrative Engineer.
Job Description: Filed Survey for new Graduate Engineers who worked across all Companies and Factories in Jordan.

June 2008 – Sep 2008

Tafila Technical University, Jordan.

Trainer Engineer, Department of Electrical Engineering.

Job Description: worked as a supervisor for Microprocessor lab for undergrad students.

Professional Activities

- Al-Hussein Bin Talal University
 - A Representative of the Faculty of Engineering at the University Council.
 - A Representative of the Computer Engineering Department, College of Engineering Council.
 - Member of the Graduate Studies Committee at the Faculty of Engineering.
 - Member of the Development, Information and Planning Committee.
 - Chairman of a technical committee to tender the renovation of the Computer Center.
- Member of IEEE.
- Member of Jordanian Engineering Association.
- Referee member in Hult Prize, Jordan 2017.
- Referee member in Intel International Science and Engineering Fair, Jordan 2018, 2019 and 2020.

Granted Projects, Awards and Fellowships

- International Credit Mobility at Staffordshire University, Erasmus+, 2020.
- Capacity Building for Higher Education, Erasmus+, Introducing Recent Electrical Engineering Development for Undergraduate Curriculum (IREEDER), Co-Investigator, Grant Amount \$840 K. 2019.
- Thermal Inspection Lab for Vehicle Inspection using Images and Computer Vision (TIL), Co-Investigator, AHU, Grant Amount \$60 K. 2019.
- International students award from Western Michigan University, USA, 2016.
- Funded Research project from the College of Engineering at Western Michigan University, USA, 2016.
- Ph.D. Scholarship from Al-Hussein Bin Talal University, Jordan, 2013.
- Bachelor Scholarship from Ministry of Higher Education, Jordan, 2004.

Research Interests

- Parallel Processing, Multiprocessor and Multicore systems.
- Computer Vision, Image Processing and Pattern Recognition.
- AI and Machine Learning.
- Non-Destructive Testing and Evaluation.

- Renewable Energy Systems (Solar Panels and Gardens).
- Drones and Quadcopters.

Publications

Alluhaidan Marwan S., **Moath Alsafasfeh**, Ikhlas Abdel-Qader, and Osama Abudayyeh. "Retinex-Based Framework for Visibility Enhancement During Inclement Weather with Tracking and Estimating Distance of Vehicles." In *2019 IEEE Jordan International Joint Conference on Electrical Engineering and Information Technology (JEEIT)*, pp. 250-255. IEEE, 2019.

Haider Mohamed K., Ikhlas Abdel-Qader, and **Moath Alsafasfeh**. "A Robust Sparse System Identification via Integrating an Individualized Time-Varying Stepsize Adjustments." In *2019 IEEE Jordan International Joint Conference on Electrical Engineering and Information Technology (JEEIT)*, pp. 705-710. IEEE, 2019.

Mohanad Alhasanat, Saud Althunibat, Khalid Darabkeh, Abdullah Alhasanat, and **Moath Alsafasfeh**. "A Physical-Layer Key Distribution Mechanism for IoT Networks." *Mobile Networks and Applications* (2019): 1-6.

Moath Alsafasfeh, Ikhlas Abdel-Qader, Bradley Bazuin, Qais Alsafasfeh, and Wencong Su. "Unsupervised Fault Detection and Analysis for Large Photovoltaic Systems Using Drones and Machine Vision." *Energies* 11, no. 9 (2018): 1-18.

Moath Alsafasfeh, I. Abdel-Qader and B. Bazuin, "Fault Detection in Photovoltaic System Using SLIC and Thermal Images, " *8th International Conference on Information Technology (ICIT)*, Amman, Jordan, 2017.

Moath Alsafasfeh. "Multiprocessing Real Time Vision Based System for Condition Monitoring in Solar Panels." Western Michigan University, (2017).

Moath Alsafasfeh, I. Abdel-Qader and B. Bazuin, "Multicore Real Time Feature Detection System Using Thermal Video for Nondestructive Testing ," *2016 International Conference on Computational Science and Computational Intelligence (CSCI)*, Las Vegas, NV, 2016.

Moath Alsafasfeh, A. Alshbatat, Configuring Snort as a Firewall on Windows 7 Environment, *Journal of Ubiquitous Systems & Pervasive Networks (JUSPN)*, Volume 3, No. 2 (2011) pp. 73-77.

Computer Skills

- Proficient in Programming of Python, C, and C++.
- Proficient in Programming of Arduino.
- Proficient in Eclipse Integrated Development Environment (IDE).
- Proficient in Windows and Linux (Ubuntu and Scientific Linux).
- Very good skills in MATLAB and VHDL Programming.
- Very good skills in GNURadio.

References

Dr. Ikhlas Abdel-Qader, PhD.

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