

Baha' A. Alsaify

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Personal

Born on October 12, 1984, in Berlin-Germany.

Jordanian Citizen.

Married, two children.

Education

B.S. Computer Engineering, Jordan University of Science and Technology (J.U.S.T), 2007.

M.s.Cmp Computer Engineering, University of Arkansas, 2009.

Ph.D. Computer Engineering, University of Arkansas, 2012.

Employment

Orange incubator at Yarmouk university, February 2007 – August 2007.

Technical support at the university of Arkansas, January 2008 – May 2009.

Research assistant at the university of Arkansas, May 2009 – August 2009.

Teaching assistant at the university of Arkansas, August 2009 – January 2011.

Research assistant at the university of Arkansas, January 2011 – May 2012.

Assistant professor at the Yarmouk university, June 2012 – September 2015.

Assistant professor at the Jordan University of Science and Technology, September 2015 – Present.

Research Interests

Wireless Sensor Networks, Network's security, Pattern Recognition, RFID, Authentication and Identification Protocols.

Publications

Journal Articles

Abdallah Y. Alma'aitah, **Baha' A. Alsaify**, and Raed Bani-Hani, "Three-Dimensional Empirical AoA Localization Technique for Indoor Applications", *Sensors*, 19(24), 2019, pp. 5544.

Rami Alazrai, Ali Awad, **Baha' A. Alsaify**, Mohammad Habbabeh, and Mohammad I. Daoud, "A dataset for Wi-Fi-based human-to-human interaction recognition", *Data in Brief*, 31, 2020.

Rami Alazrai, Mohammad Hababeh, **Baha' A. Alsaify**, Mostafa Z. Ali, and Mohammad I. Daoud, "An End-to-End Deep Learning Framework for Recognizing Human-to-Human Interactions using Wi-Fi Signals", *IEEE Access*, 8, pp. 197695-197710, 2020.

Baha' A. Alsaify, Mahmoud M. Almazari, Rami Alazrai, Mohammad I. Daoud, "A dataset for Wi-Fi-based human activity recognition in line-of-sight and non-line-of-sight indoor environments", *Data in Brief*, 33, 2020.

Baha' A. Alsaify, Dale R. Thompson, Abdallah Alma'aitah, Jia Di, "Using Dummy Data for RFID Tag and Reader Authentication", *Digital Communications and Networks*, [Accepted].

Mohammad A. Massad, **Baha' A. Alsaify**, Abdallah Alma'aitah, "Innovative UAV Self-Backhauling Hybrid Solution Using RF/FSO System for 5G Networks", *International Journal of Electrical and Computer Engineering (IJECE)*, [Accepted]

Proceedings

Ze Li, Haying Shen, and **Baha' A. Alsaify**, "Integrating RFID with wireless sensor networks for inhabitant, environment and health monitoring," in *ICPADS*, 2008, pp. 639-646.

Baha' A. Alsaify and Dale R. Thompson, "Pendulum: An energy efficient protocol for wireless sensor networks," in *Sensors Applications Symposium (SAS)*, 2010 IEEE, February 2010, pp. 273-277.

Baha' A. Alsaify, Dale R. Thompson, and Jia Di, "Identifying passive UHF RFID tags using signal features at different tari durations," *5th Annual IEEE International Conference on RFID*, April 2012.

Baha A. Alsaify, Dale R. Thompson, and Jia Di, "Exploiting hidden Markov Models in identifying passive UHF RFID tags," in *Proc. IEEE Radio and Wireless Symposium (RWS)*, Newport Beach, California, Jan. 19-22, 2014, pp. 259-261.

Mohammad A. Massad, and **Baha' A. Alsaify**, "MQTTSec Based on Context-Aware Cryptographic Selection Algorithm (CASA) for Resource-Constrained IoT Devices," *2020 11th International Conference on Information and Communication Systems (ICICS)*, Irbid, Jordan, 2020, pp. 349-354.

Ahmad Y Alhusenat, and **Baha' A. Alsaify**, "Body Sensors Network Management Protocol," *2020 International Conference on Communications, Signal Processing, and their Applications (ICCSPA)*, Sharjah, UAE, March 2021, pp.1-6.

Rami Alazrai, Mohammad Hababeh, **Baha' A Alsaify**, and Mohammad I. Daoud, "Anatomical Planes-Based Representation for Recognizing Two-Person Interactions from Partially Observed Video Sequences: A Feasibility Study," *2021 8th International Conference on Electrical and Electronics Engineering (ICEEE)*, Alanya, Turkey, April 2021, pp.318-322.

Baha' A. Alsaify, Mahmoud M. Almazari, Rami Alazrai, and Mohammad I. Daoud, "Exploiting Wi-Fi Signals for Human Activity Recognition", *2021 12th International Conference on Information and Communication Systems (ICICS)*, Valencia, Spain, May 2021, pp.245-250.

Rami Alazrai, Ali Awad, **Baha A. Alsaify**, and Mohammad I. Daoud, "A Wi-Fi-based Approach for Recognizing Human-Human Interactions", *2021 12th International Conference on Information and Communication Systems (ICICS)*, Valencia, Spain, May 2021, pp.245-250.

Mohammad I. Daoud, Yara Alrahahleh, Samir Abdel-Rahman, **Baha A. Alsaify**, Rami Alazrai, "COVID-19 Diagnosis in Chest X-ray Images by Combining Pre-trained CNN Models with Flat and Hierarchical Classification Approaches", *2021 12th International Conference on Information and Communication Systems (ICICS)*, Valencia, Spain, May 2021, pp.330-335.

Posters

Baha' A. Alsaify and Dale R. Thompson, "Fingerprinting RFID tags using timing measurement," *poster*, April 2011.

Book Chapters

Baha' A. Alsaify and Haying Shen. *Handbook of Research on Developments and Trends in Wireless Sensor Networks: From Principle to Practice*. IGI Global, February 2010, ch. Power Conservation Techniques in Wireless Sensor Networks, p. 20.

Datasets

Rami Alazrai, Ali Awad, **Baha' Alsaify**, Mohammad Hababeh, Mohammad I. Daoud. (2020), "A dataset for Wi-Fi-based human-to-human interaction recognition", Mendeley Data, V1, doi: 10.17632/3dhn4xnjxw.1

Baha' A. Alsaify, Mahmoud M. Almazari, Rami Alazrai Mohammad I. Aldaoud. (2020), "A dataset for Wi-Fi-based human activity recognition in line-of-sight and non-line-of-sight indoor environments", Mendeley Data, V1, doi: 10.17632/v38wjzmz6f6.1.

Projects

1. **A Fusion-based Approach for Fall Detection in Indoor Environment Using the Channel State Information of Wi-Fi Signals and Depth-Map videos.**

Role: Principle Investigator.

Duration: February 8, 2018 - February 9, 2021.

Description: The goals of this project is to create a method from which the movements of individuals inside the space can be detected in line of sight (LOS) and non-line of sight (NLOS) scenarios.

Funding: Funded by the deanship of research at the JUST university with the amount of 22325.16 JD.

Grant number: 20180032.

Teaching and Advising

1. Courses Taught

Course Number	Course Title
NES 311	Data Communication
NES 413	Computer Networks Laboratory
NES 451	Basics of Information System Security
NES 452	Cryptography and Network Security
NES 531	Network Management
NES 553	Network Security Laboratory
NES 751	Advanced Cryptography
CPE 150*	Introduction to Programming
CPE 230*	Digital Logic Design
CPE 231*	Digital Logic Design Laboratory
CPE 346*	Digital Design Using VHDL
CPE 347*	Digital Design Using VHDL Laboratory
CPE 354*	Data Structures
CPE 480*	Computer Aided Design
CPE 596*	Computer and Network Security
CPE 656*	Digital Design Using VHDL, MASTER
CE 733**	Network Design and Security, MASTER
* Course Taught at the Yarmouk university	
** Course Taught at the German Jordanian university	

2. Advising (non-research)

- Academic advisor for Network Engineering and Security students. 2015 - present.
- Supervised/co-supervised senior projects for Network Engineering and Security students and served as a member of the senior projects examination committee.
- A list of selected senior projects that I supervised/co-supervised
 - Two-Factor Authentication System (Fall2015 & Spring2016).
 - University Positioning and Tracking System (Fall2015 & Spring2016).
 - IOT Arduino Based Aquarium Control System for Bio Life Sustaining (Fall2016 & Spring2017).
 - Smart White-board Scanner and Eraser (Fall2016 & Spring2017).
 - Smart Parking System (Fall2017 & Spring2018).
 - Follow me (Spring2018 & Fall2018)
 - Dr. PI(Fall2019 & Spring2020)
 - Stegnography: Hiding image in video (Fall2019 & Spring2020)
 - Attendance based face recognition (Fall2020 & Spring2021)
 - Voice-based identity recognition system (Fall2021 & Spring2022)

3. Advising (Graduate Students)

- Mohammad A. Massad, "Innovative UAV Self-Backhauling Hybrid Solution Using RF/FSO System for 5G Networks and beyond",2021.

Services

A. Professional

I. Active Reviewer

- i. Computers and Security (COSE).
- ii. IEEE Internet of Things Journal (IOT)
- iii. International Conference on Information and Communication Systems (ICICS).

B. University

I. Department Committees

- i. Member. Graduation project committee (2015 - 2016).
- ii. Member. Appointment and dispatch committee (2015 - 2016).
- iii. Chair. Graduation project committee (2016 - 2017).
- iv. Member. Appointment and dispatch committee (2016 - 2017).
- v. Chair. Graduation project committee (2017 - 2018).
- vi. Member. Graduation project committees (2018 - 2019).
- vii. Member. Study plan and accreditation committee (2019 - 2020).
- viii. Member. Study plan and accreditation committee (2020 - 2021).
- ix. Member. Study plan and accreditation committee (2021 - 2022).

II. Faculty Committees

- i. Member. Faculty council (2016 - 2017).
- ii. Chair. Student council election committee (2018 - 2019).
- iii. Chair. Combat cheating committee (2018 - 2019).

III. University Committees

Last updated: October 5, 2021
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