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SUMMARY

I am a full professor of computer science in Jordan University of Science and Technology (JUST) with more than 14 years of experience in teaching, more than 14 years in programming and database administration. I have published more than 29+ peer reviewed research papers. During my Work at JUST, I have excelled in supervising more than **80 undergraduate student's projects** and served as a supervisor, co-supervised, internal examiner and external for over than **30 master students** regarding their thesis research. I also have an excellent knowledge in programming language to enhance the implementation of research articles to do simulations, including C, C++, JAVA, PHP, and Python. My research concentration is to provide smarter solutions that are based on machine to machine communications, Internet of Things, Routing over wireless networks, Smart Grids and recently Cybersecurity over computer Networks.

EDUCATION

PhD in computer Science

January 2005 – February 2009

Glamorgan (South Wales) University, Cardiff, United Kingdom

Thesis: Design and Investigation of scalable multicast recursive protocols for weird and wireless ad hoc protocols"

Master of Computer Science

September 1997 - January 2000

Jordan University, Amman, Jordan

Thesis: Developing New Feature Selection Methods for discrete and continuous class prediction

GPA 3.06 / 4

Bachelor of Computer Science

September 1987- June 1991

Mu'tah University, Alkarak, Jordan

GPA 81.98/100

PROFESSIONAL EXPERIENCE

Full Professor of Computer Science

Fahad Bin Sultan University, Tabuk, Saudi Arabia

September 2025– until now

Full Professor of Computer Science

Jordan University of Science and Technology, Irbid, Jordan

October 2023– until now

Associate Professor of Computer Science

Arab Open University, Bahrain (Sabbatical Leave)

September 2023 – September 2024

- Teach graduate computer science courses. I am currently teaching the following courses:
 - Switching, Routing, and Wireless Essentials v7.02 (SRWE)
 - Enterprise Networking, **Security**, and Automation v7.02 (ENSA)
 - Python Programming
 - Web Technology
 - Technologies in Practice.
- Program Coordinator for Master program in Cyber Security

Associate Professor of Computer Science

Jordan University of Science and Technology, Irbid, Jordan

February 2018 – October 2023

- Perform Research in the field of Internet of Things (IoT) routing. Current research activities include:
 - Consistency Algorithm for the Trickle Timer with Low- Power and Lossy Networks
 - Dynamic data encryption approach Internet of Things.
 - Lowering Power Consumption and Transmission Delay for Routing Protocol for Low- Power and Lossy Networks.
 - Battery-aware Tuning approach for the Constrained Application Protocol of Internet of Things.
 - Cost-effective scheduling scheme in smart grids.
- Teach graduate and undergraduate computer science courses. I am currently teaching the following courses:
 - Introduction to Programming
 - Object – Oriented Programming
 - Computer Networks
 - Wireless Networks
 - Advanced Computer Networks
- And I am willing to teach the following courses:
 - Data Structure
 - Java Programming

- Operating Systems
- Member of department quality assurance and ABET committee.
- Supervise master students in their theses.
- Supervise undergraduate computer science students in their graduation projects.

Deputy Head of the Center

Academic Development and Quality Assurance Center.

Jordan University of Science and Technology, Irbid, Jordan September 2021 - September 2022

- In addition to teaching and research responsibilities, this position has the following responsibilities:
 - Run and follow the continuous improvement of faculty members through their participation in workshops and training courses on teaching methods and scientific research, development and evaluation of study plans.
 - Assure that all the academic programs conform to predetermine institutional and programs accreditation standards developed by Accreditation & Quality Assurance Commission for Higher Education Institutions, Jordan.
 - Assure the execution of the strategic university plan regarding training and international accreditations.

Chairman of the department of Computer Science

Jordan University of Science and Technology, Irbid, Jordan September 2020 - September 2021

- Beside the teaching and the research activities, the chairman is responsible for the following:
 - Ensure the proper enforcement regarding the strategic objectives and policies related to the educational process and research activities in the Department.
 - A member of to the College Council with active contribution regarding the department issues and also the collage issues.
 - Construct different department committees.
 - Monitor and maintain the student courses registration process at the beginning of each semester.
 - Monitor and maintain the quality of the teaching process during the semester.
 - Hire high qualified part time lecturers for courses without teachers in the department at the beginning of each semester.
- Prepare documents for academic accreditation continuation.

Assistant Professor of Computer Science

Jordan University of Science and Technology, Irbid, Jordan September 2014 - February 2018

- Perform research and teaching responsibilities for Graduate and undergraduate courses including:
 - Undergraduate courses:
 - Introduction to C++ programming.
 - Object – Oriented programming using C++.
 - Computer Networks.
 - Wireless Networks
 - Advanced programming languages (Java).
 - Android programming.
 - Graduate courses
 - Advanced computer networks

Assistant Professor of Computer Science

Yarmouk University, Irbid, Jordan September 2013 - September 2014

- Perform research and teaching responsibilities undergraduate computer science courses including:
 - Undergraduate courses:
 - Object – Oriented programming using C++.
 - Data Structure using C++-

Chairman of the department of Computer Networks

Jadara University, Irbid, Jordan September 2010 - September 2013

- Establish the department including:
 - Establish the Study plan for the department according to the accreditation conditions by Accreditation & Quality Assurance Commission for Higher Education Institutions, Jordan.
 - Establish the syllabi for department courses.
 - Hire new academic staff for the department.

FUNDED RESEARCH PROJECTS

- Implementing fair scheduling algorithm for home appliances smart grids using NS2 simulator (principal Investigators).

Compilation of Thesis Titles for Master's Students

- Early Detection of Autistic Children by Learning Facial Image Morphological Features.
- Masked Face Detection using Multi-Graph Convolutional Networks
- Adopting DevOps by small software development companies: a systematic study on its open-source tools
- Reducing Power Consumption in Hexagonal Wireless Sensor Networks using Efficient Routing Protocols

- Developing a dynamic data encryption approach based on addressing the data importance in the Internet of Things.
- History-based Consistency Algorithm for the Trickle Timer with Low- Power and Lossy Networks
- An Optimized Approach to Improve AODV by Using Genetic Algorithm in Smart 8Grid applications.
- Genetic Algorithm Energy-Aware Routing Scheme in Internet of Things
- Detecting Denial-of-Service(DoS) Attacks in MANET networks using Classification Algorithms
- On Lowering Power Consumption and Transmission Delay for Routing Protocol for Low-Power and Lossy Networks
- Insider Collusion Threat in Relational Databases: Prediction and Mitigation
- Battery-aware Tuning approach for the Constrained Application Protocol of Internet of Things
- Improving in Home Energy Management (iHEM) scheme for Smart Grids
- Toward a cost-effective scheduling scheme in smart grids

PUBLICATIONS

Refereed Journal Articles

- [1] Alzu'bi, A., **Albalas, F.**, Al-Hadhrami, T. et al. MFI3D: masked face identification with 3D face reconstruction and deep learning. **Neural Computing & Applications** (Scopus Q1), (2024). <https://doi.org/10.1007/s00521-024-10582-8>
- [2] Tashtoush, Y., Alajlouni, M., **Albalas, F.** et al. Exploring low-level statistical features of n-grams in phishing URLs: a comparative analysis with high-level features. **Cluster Computing** (Scopus Q1), 27,13717–13736 (2024). <https://doi.org/10.1007/s10586-024-04655-5>
- [3] **F. Albalas**, Ahmad Alzu'bi, Alanoud Alguzo, Tawfik Al-Hadhrami, and Achraf Othman (2022), "Learning Discriminant Spatial Features With Deep Graph-Based Convolutions for Occluded Face Detection", **IEEE Access journal** (Scopus Q1), vol. 10, pp. 35162 – 35171.
- [4] **F. Albalas**, Haneen Taamneh , Wail E. Mardini (2021), "History-based consistency algorithm for the trickle-timer with low-power and lossy networks", **International Journal of Electrical and Computer Engineering** (Scopus Q2), vol. 11, no. 3, pp. 2569 – 2576.

- [5] **F. Albalas**, Majd Al-Soud, Omar Almomani, and Ammar Almomani, (2018), "Security-aware CoAP Application Layer Protocol for the Internet of Things using Elliptic-Curve Cryptography", The International Arab Journal of Information Technology (Scopus Q2), vol. 15, no. 3A, pp. 550 – 558.
- [6] **F. Albalas**, Wail Mardini and Dua'a Bani-salameh (2017), "Optimized Job Scheduling Approach based on Genetic Algorithms in Smart Grid Environment", International Journal of Communication Networks and Information Security (Scopus Q3), vol. 9, no. 2, pp. 172 -176.
- [7] **F. Albalas**, W. Mardini and Majd Alsoud (2017), "A Comprehensive Study on Machine To Machine resource and Service Discovery in Internet of Things", Far East Journal of Electronics and Communications, vol. 6, no. 2, pp. 106-30, 2017
- [8] **F. Albalas**, Wail Mardini, Yaser Khamayseh, Dua'a Ah.K.Bani-Salameh (2016), "Improved Appliance Coordination Scheme with Waiting Time in Smart Grids," International Journal of Advanced Computer Science and Applications (Scopus Q3), vol. 7, no. 4, pp. 16-30, 2016
- [9] Dana Khwailleh, **F. Albalas** (2021). "A dynamic data encryption method based on addressing the data importance on the internet of things", International Journal of Electrical and Computer Engineering (Scopus Q2), vol. 12, no. 2, pp. 2139 – 2146
- [10] Ahmad Alzu'bi, **F. Albalas**, Tawfik Al-Hadhrani, Lojin Bani Younis, Amjad Bashayreh, (2021), "Masked Face Recognition Using Deep Learning: A Review", Electronics Journal (Scopus Q2), vol. 10, no. 21, pp. 2666 – 2701.
- [11] Razan Khalid Alhatimi, Omar Saad Almousa and **F. Albalas**, (2021), "Reducing Power Consumption in Hexagonal Wireless Sensor Networks Using Efficient Routing Protocols", Journal of ICT Research and Application (Scopus Q2), vol. 10, no. 2, pp. 169 – 187.
- [12] Ammar Almomani, Mohammad Alauthman, Mohammed Alweshah, O. Dorgham, **F. Albalas** (2019). "A comparative study on spiking neural network encoding schema: implemented with cloud computing", Cluster Computing Journal (Scopus Q2), vol. 22, no. 4, pp. 419 – 433..
- [13] Ammar Almomani, Mohammad Alauthman, **F. Albalas**, Atef Ahmed Obeidat (2018). "An Online Intrusion Detection System to Cloud Computing Based on Neucube Algorithms", International Journal of Cloud Applications and Computing (Scopus Q3), vol. 8, no. 2, pp. 96 – 112.

- [14] Q. Yaseen, **F. Albalas**, Y. Jararweh and M. AlAyyoub (2017). "Leveraging Fog Computing and Software Defined Systems for Selective Forwarding Attacks Detection in Mobile Wireless Sensor Networks", *Journal of Transactions on Emerging Telecommunications Technologies* (Scopus Q2), Wiley, 2017.
- [15] M. Baniyasen, **F. Albalas** and A Odeh (2017), "Energy-Aware objective function for RPL Routing in Internet of Things", *International Journal on Communications Antenna and Propagation* (Scopus Q2), vol 7, no. 2, pp 188 – 197.
- [16] Wail Mardini **F. Albalas**, Qusai Obeidat and Muneer Masadeh Bani Yassein (2016), "Improved home energy management techniques for smart grids," *International Journal of Smart Home* (Scopus Q3), vol. 11, no. 5, pp. 1-20.
- [17] B. Zaqaibeh, **F. Albalas**, et al. (2012), "Designing a New Assertion Constraints Model for Mobile Databases", *International Journal of Interactive Mobile Technologies (IJIM)* (Scopus Q3), vol. 6, no.2, pp. 39-46.
- [18] Jafar Ababneh, F. Albalas, et al. (2012), "Performance Evaluation for Scalable Recursive Multicast Protocol using ns2 simulator", *International Journal of Computer Science and Information Security (IJCSIS)* (Scopus Q2). Vol. 10, no. 5, pp: 84-87.
- [19] **F. Albalas**, B. AbuAlhaija, et al. (2010). "Quality of Service for Multimedia and Real-Time Services." *International Journal of Information Technology and Web Engineering (IJITWE)* (Scopus Q3), vol. 5, no. 4, pp. 1-22.

Refereed Conference Publications

- [1] **Albalas, F.**, Alrabee, E., Mardini, W., Sawafta, A.(2022). "Energy-Aware Routing Approach in Internet of Things Using Genetic Algorithms", the **9th IEEE International Conference on Internet of Things, Systems, Management and Security, IOTSMS 2022**, Italy, 2022.
- [2] **F. Albalas**, Majd Alsoud, Wail Mardini (2019). "A scalable and battery: aware tuning approach for constrained devices in internet of things", **The Second International Conference on Data Science, E-Learning and Information Systems, ACM**, Dubai, UAE, 2019.

- [3] **F. Albalas**, Munner Bani Yaseen, Asma'a Nassar (2019). "Detecting black hole attacks in MANET using ReliefF classification algorithm, **the 5th ACM International Conference on Engineering and MIS**, Amman, Jordan, 2019.
- [4] **F. Albalas**, Omar Almomani, Reema M. Abu Jazoh, Yaser Khamayseh, Adeeb Saaidah (2019). "An Enhanced End to End Route Discovery in AODV using Multi-Objectives Genetic Algorithm", **IEEE International Joint Conference on Electrical Engineering and Information Technology (JEEIT)**, Amman, Jordan, 2019.
- [5] **F. Albalas**, Wail Mardini, Majd Al-Soud and Qussai Yaseen (2019). "A topology-based performance Evaluation for an adaptive tuning protocol for service and resource discovery in the Internet of Things", **IEEE 9th Annual Computing and Communication Workshop and Conference (CCWC)**, Las Vegas, NV, USA, 2019.
- [6] Omar Almomani, Adeeb Saaidah, **F. Albalas**, Laila Al-Qaisi (2019). "Simulation Based Performance Evaluation of Several Active Queue Management Algorithms for Computer Network", the 10th IEEE International Conference on Information and Communication Systems, Amman, Jordan, 2019.
- [7] Alanood Algazo, Ahmad Alzu'bi, **F. Albalas** (2021). "Masked Face Detection using Multi-Graph Convolutional Networks", **12th IEEE International Conference on Information and Communication Systems**, Valencia – Spain, 2021.
- [8] Qussai Yaseen, Aman Alabdulrazzaq, **F. Albalas** (2019)." A Framework for Insider Collusion Threat Prediction and Mitigation in Relational Databases", **IEEE 9th Annual Computing and Communication Workshop and Conference (CCWC)**, Las Vegas, NV, USA, 2019.
- [9] **F. Albalas**, Wail Mardini and Dua'a Bani-salameh (2017), "AFT: Adaptive Fibonacci-based Tuning Protocol for Service and Resource discovery in the Internet of Things", **the second IEEE International Conference on Fog and Mobile Edge Computing (FMEC)**, Valencia, Spain, 2017.
- [10] M. Alayyoub, Q. Yaseen, M. Shehab, Y. Jararweh and **F. Albalas** (2016). "Exploiting GPUs to Accelerate Clustering Algorithms." **the 13th ACS/IEEE International Conference on Computer Systems and Applications AICCSA**, Agadir, Morocco, November 2016.

- [11] M. Alayyoub, Q. Yaseen, M. Shehab, Y. Jararweh and **F. Albalas** (2016). "Accelerating Clustering Algorithms Using GPUs." **The 14th IEEE High Performance Extreme Computing Conference (HPEC-2016), Boston, USA, 2016.**

- [12] M. Alayyoub, Q. Yaseen, M. Shehab, **F. Albalas** and Y. Jararweh(2016). "Accelerating FCM-Based Text Classification Algorithm Using GPUs." **The 14th IEEE High Performance Extreme Computing Conference (HPEC-2016), Boston, USA, 2016.**

- [13] Q. Yaseen, **F. Albalas**, Y. Jararweh, M. Alayyoub (2016). "A Fog Computing Based System for Selective Forwarding Detection in Mobile Wireless Sensor Networks." **The 1st IEEE Foundations and Applications of Self* Systems Conference**, Augsburg, Germany, September 2016