Musa Salah Musa Al Yaman
Assistant Professor

MAILING ADDRESS

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CONTACT INFORMATION

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SHORT BIO

Holds PhD degree in Electrical and Electronic Engineering from Newcastle University in Newcastle Upon Tyne, UK, in 2015, Received his MSE degree in Industrial Automation from Yarmouk University, Irbid, Jordan in 2006. He got a BSc degree in Computer Engineering from the University of Jordan in 2004. He has joined the Mechatronics Engineering Department at the University of Jordan as an Assistant Professor since 2015. He serves as a TPC member of highly reputable IEEE conferences in JEEIT and MECBME. As administrative experience at the University of Jordan, he served as Acting Head of the Mechatronics Engineering Department from Sep. 2017 to Feb. 2021. At the end, he has 15 publications; he is engaged in research mainly on Artificial Intelligence, Image Processing, Embedded Systems design and Biomedical Engineering.

RESEARCH INTERESTS

Artificial Intelligence, Image Processing, Embedded Systems design and Biomedical Engineering.

EDUCATION	**Newcastle University**, Newcastle upon Tyne, UK

PhD, Electrical and Electronic Engineering, 2012-2015

Dissertation Title: "FPGA Design and Implementation of a framework for Optogenetic Retinal Prosthesis"

University of Yarmouk, Irbid, Jordan

M.S., Industrial Automation, 2004-2006

Dissertation Title: "Watermarking For Image Authentication and Ownership Verification"

University of Jordan, Amman, Jordan

B.S., Computer Engineering, 2000-2004

Graduation Project: "Design and Manufacture of an Automated Labelling Machine"

Al Omarya School, Amman, Jordan

Tawjihi Scientific Branch Certificate, 2000

The top student in the school 94%

ACADEMIC EXPERIENCE

University of Jordan, Mechatronics Engineering Department, Amman, Jordan

Assistant Professor   **May 2015 - Present**
   a- Teaching the following courses: Microprocessors and Microcontrollers, Automation and Programmable Logic Controller, Field Programmable Gate Array, Introduction to Engineering, Fluid Power Engineering and Electrical Machines.
   b- Teaching the following: laboratories: Microprocessors and Microcontrollers Lab, Automation and Process Control Lab, Computer Application Lab and Fluid Power Engineering Lab.

Newcastle University, Electrical and Electronic Engineering, Newcastle Upon Tyne, United Kingdom

Graduate Teaching Assistance   **Aug. 2013 - May 2015**

 Teaching FPGA Lab and Embedded Systems Lab

University of Jordan, Computer Engineering Department, Amman, Jordan

Full-Time Instructor   **Nov. 2006 – Feb. 2012**
   a- Teaching the following courses: Digital Logic, Assembly Language and Microprocessors, Embedded Systems, Object-Oriented Problem Solving, Digital Electronics, Network and Internet Programming and Digital System Design.
   b- Teaching the following: laboratories: Digital Logic Lab, Assembly Language and Microprocessors Lab and Embedded Systems Lab.

PROFESSIONAL EXPERIENCE	**School of Engineering / University of Jordan**

Chair of the Mechatronics Engineering Department **Sep. 2017 – Feb. 2021**

- Handling academic issues related to students and staff members
- Development of the department's laboratories and infrastructure.
- Preparation of the graduate and undergraduate study plans.
- Load distribution management.
- Design and implementation of computer networks in department labs.
- Recruiting faculty members, lecturers, and lab engineers.
- Active participation in tender documents preparations, evaluations of offers and approval.
- Organization and supervision of administrative tasks.

School of Engineering / University of Jordan

Lab Engineer in Computer Engineering Department   **Sep. 2004 – Nov. 2006**

Horizon Computer Technique, Doha-Qatar

Trainee   **Jul. 2003 - Aug. 2003**

FUNDED PROJECTS
- Principal Investigator, Design and Implementation of Filling Machine, Supported by Deanship of Academic Research, the University of Jordan, 2021.
- Principal Investigator, Design and Implementation of Automation Lab Experiments (Software/Hardware), Supported by Deanship of Academic Research, the University of Jordan, 2019.
- Principal Investigator, Design Self-Alignment for Below-Knee Prosthesis, Supported by Deanship of Academic Research, the University of Jordan, 2018.
- Principal Investigator, Digital Teeth Impression, King Abdullah Design and Development Bureau (KADDB), Jordan, 2017.

PROFESSIONAL MEMBERSHIPS

Jordan Engineers Association, 2004-Present.

PROFESSIONAL ACTIVITIES
- Robotics Focus Group Leader in Developing Curricula for Artificial Intelligence and Robotics (DeCAIR), Erasmus+ Capacity Building in Higher Education,2021
- Technical Program Committee of the 2021 IEEE Jordan International

Joint Conference on Electrical Engineering and Information Technology (JEEIT), Amman, Jordan, Nov. 2021.

- Reviewer, IEEE International Conference on Information Technology (ICIT), 2021.
- Technical Committee for studying and evaluating the bids of Erasmus+ funded "DeCAIR" project for establishing a new Robotics lab at the University of Jordan campus, 2021.
- Reviewer, Computer Applications in Engineering Education Journal, 2021.
- Board member of Developing Curricula for Artificial Intelligence and Robotics (DeCAIR), Erasmus+ Capacity Building in Higher Education,2020-2023
- Technical Program Committee of the 2020 IEEE Middle East and Africa Conference on Biomedical Engineering (MECBME), Amman, Jordan, Oct. 2020.
- Reviewer, IEEE The Middle East and Africa Conference on Biomedical Engineering (MECBME), 2020.
- Board member of a committee formed by the Higher Education Accreditation Commission for setting Online and Blended learning guidelines, 2019
- Reviewer, Journal of Intelligent Transportation Systems: Technology, Planning, and Operations. 2019
- Technical Committee for studying and evaluating the bids of Mechatronics Engineering labs development at the University of Jordan campus, 2018.
- Supervised the second place winning team in ACM-ACPC Arab Collegiate Programming Contest 2017
- Chair and board member of the Technical Judging Committee for Jordan's First Lego League (FLL) Championship, 2016-2019.
- Chair and member of a lot of committees in the Mechatronics Engineering Department at the University of Jordan, 2015-2021.
- Chair and member of a lot of committees in the School of Engineering at the University of Jordan, 2015-2021.
- Reviewer, IEEE Jordan Conference on Applied Electrical Engineering and Computing Technologies (AEECT), 2015-2021
- Supervised the graduation project that won the best people choice in First National Technology Parade, Project Title: Robot Guide for Blind People, 2008
- Member of the steering committees of National Technology Parades 2008.

JOURNALS PUBLICATIONS

1. **Al-Yaman, M**.; Alhaj Mustafa, H.; Hassanain, S.; Abd AlRaheem, A.; Alsharkawi, A.; Al-Taee, M. Improved Automatic License Plate Recognition in Jordan Based on Ceiling Analysis. Appl. Sci. 2021, 11, 10614.
2. **Alyaman, Musa**; Sobuh, Mohammad; Zaid, Alaa Abu; Kenney, Laurence; Galpin, Adam J; Al-Taee, Majid A; Towards automation of dynamic-gaze video analysis taking functional upper-limb tasks as a case study Computer Methods and Programs in Biomedicine 203 106041, 2021 Elsevier

3. Alsharkawi, Adham; Al-Fetyani, Mohammad; Dawas, Maha; Saadeh, Heba; **Alyaman, Musa**; Poverty Classification Using Machine Learning: The Case of Jordan, Sustainability13 3 1412, 2021 Multidisciplinary Digital Publishing Institute.
4. **Alyaman, Musa**; Abd-Raheem, Alaa; AlDeiri, Farah; Design of an automated extraoral photogrammetry 3D scanner. Int. Arab J. Inf. Technol.16, 3A 533-539, 2019.
5. Al-Atabany, Walid; **Al Yaman, Musa**; Degenaar, Patrick; Extraspectral imaging for improving the perceived information presented in retinal prosthesis Journal of healthcare engineering 2018 Hindawi

CONFERENCES PUBLICATIONS	1. Abd-Raheem, Alaa; AlDeiri, Farah; **Alyaman, Musa**; Design of an automated 3D scanner 2018 International Arab Conference on Information Technology (ACIT), 01-May

1. Abd-Raheem, Alaa; AlDeiri, Farah; **Alyaman, Musa**; Design of an automated 3D scanner 2018 International Arab Conference on Information Technology (ACIT), 01-May
2. Mustafa, Haneen Alhaj; Hassanin, Sara; **Al-Yaman, Musa**; Automatic Jordanian License Plate Recognition System Using Multistage Detection 2018 15th International Multi-Conference on Systems, Signals & Devices (SSD), 1228-1233, 2018, IEEE
3. Zaid, Alaa Abu; Suhweil, Yazan; **Al Yaman, Musa**; Smart controlling for traffic light time 2017 IEEE Jordan Conference on Applied Electrical Engineering and Computing Technologies (AEECT), 01-May 2017 IEEE
4. Zaid, Alaa Abu; Sobuh, Mohammad; **Al Yaman, Musa**; Development of an algorithm for automating gaze data analysis gathered while using upper limb prostheses 2017 7th International Conference on Modeling, Simulation, and Applied Optimization (ICMSAO), 01-May, 2017 IEEE
5. Mattar, Faris; Qudaimat, Hala AL; Al Qaroot, Bashar**; Al Yaman, Musa**; Low cost foot plantar-pressure scanning pad 2016 3rd Middle East Conference on Biomedical Engineering (MECBME), 20-24 2016 IEEE
6. **Al Yaman, Musa**; Al-Atabany, Walid; Bystrov, Alex; Degenaar, Patrick; FPGA design for dual-spectrum visual scene preparation in retinal prosthesis, 2014 36th Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 4691-4694
7. **Al Yaman, Musa**; Degenaar, Patrick; FPGA design of an even power distributor for optoelectronic neural stimulation, 2013 IEEE Jordan Conference on Applied Electrical Engineering and Computing Technologies (AEECT), 01-Apr 2013 IEEE
8. **Al Yaman, Musa**; Ghani, Arfan; Bystrov, Alex; Degenaar, Patrick; Maaskant, Pleun; FPGA design of a pulse encoder for optoelectronic neural stimulation and recording arrays,
9. **Al-Yaman, Musa S**; Al-Taee, Majid A; Alshammas, Hemam A; Audio-watermarking based ownership verification system using enhanced DWT-SVD technique, International Multi-Conference on Systems, Signals & Devices, 01-May 2012 IEEE
10. **Al-Yaman, Musa S**; Al-taee, Majid A; Shahrour, Anas T; Al-Husseini, Ismail A; Biometric based audio ownership verification using discrete wavelet transform and SVD techniques, Eighth International Multi-Conference on Systems, Signals & Devices, 01-May 2011 IEEE

ATTENDED COURSES

- Python Programming, DECAIR project, 2021
- DiES ProGRANT Proposal Writing for Research Grands, Beirut, Lebanon, 2019

- CISCO (CCNA) Academic Instructor, Princess Sumaya University for Technology, From Nov.25, 2010, to Jan.4, 2011
- Oracle Developer 10g & Reports. From May.9 to Jun.17, 2010.
- ITIL, Jordan. From Sep.17 to Sep.21, 2008.
- PLC Programming using Siemens PLCs, Syria. From May.1 to May.5, 2007.
- MCSE, From Feb.10 to May.29, 2006.
- PSOC Training Course, Lebanon, Summer University. From Sep.6 to Sep.16, 2005.
- CISCO (CCNA) Training Course, Semesters (1-4). From Feb.8 to Feb.19, 2004
- A+ Certification Core Hardware Training Course. From Jun.22 to Jul.21, 2003.

TECHNICAL SKILLS

- Programming Languages and Simulation Tools: C, C++, Java, Matlab, C# .NET, Visual Basic, SQL, Assembly (8085, x86-Intel Core 2, MIPS).
- Platforms: DOS, Windows 95-Vista, UNIX, and Linux.
- Hardware Description Languages: VHDL and Verilog
- Typography: LaTeX and MS Office.

LANGUAGES

English fluent
Arabic mother tongue

REFERENCES

Available upon requests.