

*Samer Husni Jaloudi, Senior Member, IEEE
Sun Certified Java Programmer*

Personal Information

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Education

- **PhD in Electrical Engineering (2009 – 2013):**
University of Bolton, [United Kingdom](#) and NR Westphalia University of Applied Sciences, [Germany](#)
Subject of Thesis: Development of Information and Communication Technology Strategies for Smart Grids
- **Master's Degree in Microelectronics – Design of Integrated Systems (2004 – 2005):**
Grenoble Institute of Technology (INPG), [France](#)
Subject of Thesis: CAD environment for the injection of faults in the digital circuits using VHDL & C
- **Bachelor's Degree in Electrical Engineering (1993 – 1998):**
An-Najah National University, [Palestine](#)
Final Project: Measurements for Fiber Optics Networks (in cooperation with PALTEL)

Experience

- **Professional Experience:**
Networks Engineer in PALTEL (1998 – 2003). Main Duties:
 1. Fibre optics cables installation, splicing, fusion, and measurements
 2. Case studies in network planning of public switched telephone networks (PSTN)
 3. Installation, administration & maintenance of S-12 ALCATEL telephone switches
- **Academic Experience:**
Part-time instructor at Arab-American University (2006 – 2009), Department of Telecommunications
Full-time [Associate Professor](#) at Al Quds Open University (2006 – present), Department of ICT
Duties based on embedded-learning:
 1. Head of the ICT department at QOU (2016 – 2018, and 2019 – 2022)
 2. Curricula development, course materials preparation, and book review
 3. Supervision of lab courses, students projects, and Bachelor theses
 4. Manage students' Internships with local institutions
 5. Teaching Responsibilities (Bachelors and Masters):
 - [Telecommunications](#): Telecoms I, Telecoms II, Telecoms Networks, Electromagnetic II, Antenna
 - [Circuits and Electronics](#): Electric Circuits I, Electronics I, Electronics II, Digital Design Lab
 - [ICT](#): Java, Network Programming using Java, Multimedia, Web Design, Internet of Things

IT and Engineering Skills

- **Internet-based Technologies using Standard Protocols:**
Internet of Multimedia (IoMM) using Protocol XMPP
Internet of Things (IoT) for Smart City Sectors using MQTT, and JSON/HTTP
Industrial Internet of Things (IIoT) using MODBUS/TCP, and MQTT Protocol
Internet of SCADA Systems using IEC 60870-5-104, and IEEE 754 Short Floating Point
Internet of Energy using IEC 61850 for the Integration of Renewable Energy Sources in Electric Grids
- **High-Level Languages:**
Programming Languages: Java, C, C#, Python
Web Languages: HTML, JavaScript, PHP, JSP
Industrial Languages: PLC Structured Text (Standard IEC 61131-3)
- **Software Development Tools :**
Software IDE Tools: MATLAB, Android Studio, MIT APP Inventor
Other Software: Linux–Ubuntu Operating System, and MySQL Databases
- **Embedded Systems:**
Physical Layer Protocols: UART and SPI
Electronics Design and Simulation Tools: PSpice, and LTSpice
Development Platforms: FPGA Cyclone IV, Arduino, Raspberry PI
Wireless Communication Systems and Protocols: Bluetooth, Wi-Fi, ZigBee

Languages

- Arabic, English, French

Main Publications

• Journal Papers:

1. Generation of Multiple Frequency PWM Signals using FPGA (*QOU PJTAS – 2021*)
<https://journals.qou.edu/index.php/PJTAS/issue/archive>
2. Communication Protocols of an Industrial Internet of Things Environment (*Future Internet – 2019, Citations: 68*)
<https://www.mdpi.com/1999-5903/11/3/66>
3. MQTT for IoT-based Applications in Smart Cities (*QOU PJTAS – 2019, Citations: 16*)
<http://journals.qou.edu/index.php/PJTAS/article/view/1550/>
4. A bridge between legacy wireless communication systems and internet of things (*IJEEI – 2019, Citations: 3*)
<http://section.iaesonline.com/index.php/IJEEI/article/view/979/419>
5. Software-defined radio for modular audio mixers (*IEEE CEMAG – 2017, Citations: 11*)
<https://ieeexplore.ieee.org/document/8048739/>

• Conference Papers:

1. Open source software of smart city protocols (*International OSSCOM Conference – Jordan, 2015, Citations: 11*)
<https://ieeexplore.ieee.org/document/7372690>
2. Communication strategy for grid control and monitoring of distributed generators in smart grids using IEC and IEEE standards (*IEEE ISGT Conference – UK, 2011*)
<https://ieeexplore.ieee.org/document/6162689/>
3. Integration of distributed energy resources in the grid by applying international standards to the inverter as a multifunctional grid interface (*IEEE PowerTech Conference – Norway, 2011*)
<https://ieeexplore.ieee.org/document/6019288/>
4. Employment of programmable controllers, control systems and service oriented architecture for the integration of distributed generators in the grid (*IEEE ISIE Conference – Poland, 2011*)
<https://ieeexplore.ieee.org/document/5984302/>
5. Investigation and comparison between international standards for information integration and control of ECSs based on RESs over IP-based Networks (*ICREPO Conference – Spain, 2011*)
<http://www.icrepq.com/icrepq'11/238-jaloudi.pdf>

• Books:

- Authorship:
 1. Telecommunications I, *in Arabic, for QOU – 2021.*
- Revision:
 1. Analysis of Electrical and Electronics Circuits, *in Arabic, for QOU – 2020.*
 2. Networks Programming, *in Arabic, for QOU – 2019.*
 3. Web Pages Design, *in Arabic, for QOU – 2019.*

Research Profile and Societies

• IEEE Profile:

- Membership:
 1. Level: **Senior Member** (<https://ieee-collabratec.ieee.org/app/p/DrSamerJaloudi>)
 2. Society Memberships: IEEE Industrial Informatics, and IEEE Consumer Electronics
- Reviewing:
 1. TPC of IEEE Sensors 2015-2017, 2021
 2. Reviewer for the IEEE Consumer Electronics Magazine, IEEE Access, and IEEE IoT Journal

• Google Scholar Profile

- Link: <https://scholar.google.com/citations?user=OtavruwAAAAJ&hl=en>
- h-index: 9
- Citations: 269

Research Interests

- Information and Communication Technologies of Renewable Energy Integration in Smart Grids
- Internet of Things (IoT) of Smart City Sectors, Consumer Electronics, and Industrial Applications
- Applications of Software-Defined Radio (SDR) in Engineering Education and Consumer Electronics

Scholarships, Awards, and Grants

- Grant from Erasmus+, Academic Staff Mobility (REACH project), for one-week at UoL (2017)
- Fund for one-year project from the Deanship of Scientific Research at QOU about Smart Cities (2017)
- Grant from Erasmus+, Academic Staff Mobility, for one-week visiting Professor at OUC (2017)
- Master's Degree scholarship from the French Consulate in Jerusalem (2003 – 2005)