

Mohammed Al-Qaisi

Hi-Tech Man & Proud Geek

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 Bethlehem/Palestine

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EXPERIENCE

Workshops and Training Experience

Palestine Polytechnic University

 October 2015 – Ongoing

 Hebron, Palestine

- Experienced in conducting and teaching student workshops and practical courses on microcontrollers, embedded systems, PCB design and robotics with IEEE student's chapters at Palestine Polytechnic University.

Graduation Projects Supervisor

Palestine Polytechnic University


 October 2021 – 2023

 Hebron, Palestine

- Supervise, Guide and contribute to graduation projects, focusing on cutting-edge research and practical application.
- Led two embedded systems projects: heart rate estimation using Hilbert transform on BCG signals, and bacteria detection via a capacitive biosensor.

Research and Teaching Assistant, Electronics and Microcontroller Lab Supervisor

Palestine Polytechnic University

 September 2013 – Ongoing

 Hebron, Palestine

- Supervise Electronics and Microcontroller Labs; teach laboratory courses in Electronics, Control Systems, Microcontrollers, Sensors, and digital design for the Electrical Engineering Department.
- Led discussion sections, provided classroom instruction, and supervised laboratory sessions in the Department of Electrical Engineering.

Embedded Systems R&D Engineer

INTILAQ Corporation

 September 2015 – October 2017

 Hebron, Palestine

- Design and fabrication of an IoT smart energy meter.

LIFE PHILOSOPHY

"The Only Limits, is your Imagination."

SKILLS



Programming

- Skilled in programming with C, C++, LabVIEW and MATLAB.



Microcontroller

- Skilled in Microcontroller programming and configurations (PIC, AVR and ARM microcontrollers).
- Designing embedded systems using microcontroller and systems interfacing.
- Implementation and optimization of algorithms for microcontroller-based systems



ROBOTICS

- Designed mobile and stationary robot systems, focusing on both hardware and system integration.
- Developed and programmed robot algorithms using Robot Operating System (ROS).
- Deployed and implemented robot algorithms on single-board computers (SBCs) with ROS.



Electronics

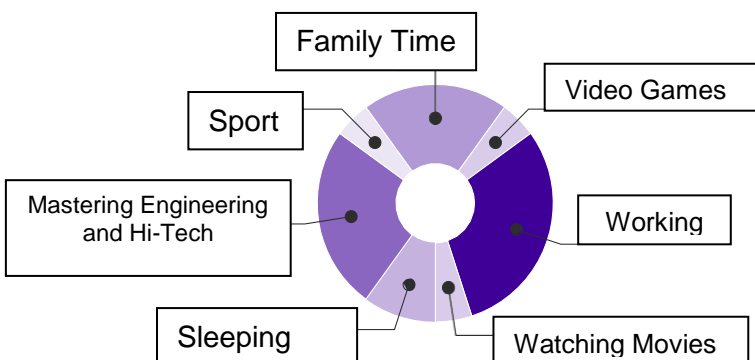
- Very good with analog electronics design, digital electronics design, sensors conditioning and interfacing.
- Very good with power electronics design.
- Analog and digital signal processing.



Mathematics

- Knowledgeable in calculus, applied mathematics, linear algebra and differential equations.
- Skilled at applying mathematical principles to real-world scenarios.
- Experienced in mathematical modeling and utilizing mathematical software.

A DAY OF MY LIFE



LANGUAGES

Arabic
English



EDUCATION

M.S. in Mechatronics Engineering

Palestine Polytechnic University

📅 Sept 2015 – June 2021

Thesis: Single Board Computer ROS-Based Tennis Balls Collecting mobile Robot.

- Conducted research on designing and programming mobile robots utilizing ROS.
- Develop/adapt algorithms corresponding to the required robot tasks and implement them with ROS.
- Install a SBC (Raspberry Pi 4) on the robot and deploy ROS on it using a standard operating system (Linux).
- Integrated various sensors and actuators to achieve autonomous navigation and intelligent, optimized decision-making capabilities.
- Developed expertise in hardware integration and software development for robotics applications.

B.S. in Electrical Engineering

Palestine Polytechnic University

📅 Sept 2007 – June 2012

Specialized in biomedical engineering branch field.

Graduation Project: Design and implementation of a single channel three-electrode three-leads ECG system.

- Gained experience in electronics design for medical application.
- Understanding the principles of biomedical signal acquisition, signal processing and data analysis.
- Gain hands-on experience with sensors, amplifiers, filters, and digital signal processing techniques
- Developed expertise in hardware integration and software developments for medical applications.

INTERESTS & HOBBIES

- Sport: Cycling, swimming and Hiking.
- Hi-Tech
- Space
- Traveling and adventures.
- Video games & Movies

REFEREES

Dr. Ramzi Al-Qawasmi.

Assistance of Academic Deputy

📍 Palestine Polytechnic University

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Dr. Khaled Tamizi

Assistant Professor

📍 Palestine Polytechnic University

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Dr. Sami Al-Salamine

Research group leader

📍 Hyperstone, Germany

@ sami@ppu.edu

Dr. Nassim Iqtait

Assistant Professor & Head of the Electrical Engineering Department.

📍 Palestine Polytechnic University

@ nassim_eng83@ppu.edu

Eng. Shadi Rjoub

Branch Manager at **SELCo & INILAQA** CEO.

📍 Southern Electricity Co-Hebron-Palestine

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