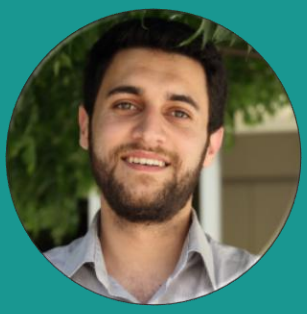

Zaid Haymoor

Electrical, Electronics and IoT systems Engineer

Swansea, Wales, United Kingdom

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+962 79 91 61 986 *(JO)*

31st August 1994

Education

- **PhD in** Electrical and Electronics Engineering (**Swansea University, United Kingdom)**

Thesis: Development of Smart Systems for Testing and Utilizing Indoor Photovoltaic Generators in Internet of Things (IoT) Energy Harvesting Applications

- Masters of **Embedded systems -** Computer Engineering (**Al Yarmouk University at Hijjawi For Engineering Technology, Jordan)**

GPA: 3.4 **(** officially 85.1% ,**Very Good).**
Master Thesis: Measuring power components for non-linear loads using FPGA.

- Bachelor of **Electrical Power Engineering** Al-Balqa Applied University (BAU), Faculty of Engineering and Technology (Polytechnic)

GPA: 3.11 **(Very Good).**
Graduation Project: Designing Neuro-Fuzzy Solar MPPT with Charge Controller and Monitoring System.

- Jubilee High School for Excellence (2008-2012).

Graduation Project: Computer Vision Based Robotic Vacuum Cleaner

Experience

- **Postdoctoral Researcher** at Swansea University (Jan, 2025 - Present).

  - Conducting research on advanced energy-harvesting solutions for Internet of Things (IoT) devices.

- **Teaching Assistance** at Swansea University (2021 - 2024).

Assisted with lectures, lab demonstrations, assignment marking, and student mentoring for the following modules:

- EG-040 Electricity and Magnetism
- EG-150 Signals and Systems
- EG-290 Statistical Methods in Engineering
- EG-247 Digital Signal Processing
- EG-230 Electronic Circuits Laboratory
- EGQMN3 Nanoscale Simulation **(Masters Course)**
- EG-151 Microcontrollers
- EG-242 Electrical Machines Laboratory

- **Teaching and research Assistance, Lab Engineer** at Al-Hussein Technical University (2018 - 2021).

Implemented **Pearson-accredited** assessment methods to ensure alignment with international standards and best practices in student evaluation. Prepared, delivered and assisted the laboratory sessions for:

- Industrial Systems lab
- Mechatronics Lab
- Advanced Electrical Workshops
- STEM labs Level 1 and Level 2
- Managing a Professional Engineering Project lab
- Electrical and Electronic Principles lab
- Engineering Science lab

- **Co-Founder and CTO** of Cyborgs Technology for smart IoT and IT solutions. (2019- 2021).

Led a small team of developers and engineers to design and deploy custom IoT hardware and software solutions. I was also the bridge between clients converting their needs into features and tasks to be developed by engineers.

- **Co-Fonder** of MaidMe; A mobile application for servicing housekeepers (2018).
- **STEM and Robotics Educator** at Al-Baraqdar international School (2017-2018).
- Part time Robotics and Electronics **Trainer** at Bright Engineers for (2015-2017).
- **Co-Founder** of Medical Cyborgs Group for biotechnology and biomedical engineering Training (2013- 2017).
- **Part time Robotics and Electronics Trainer** at Eureka Tech Academy (2014-2015).

Awards And Funds

- **ICURe (Innovation to Commercialisation of University Research) Award** – *£2,500 (2024)*
  Granted by the UKRI-funded SETsquared Partnership for the "Reef IoT" project.Successfully completed the ICURe "Discover" programme (March–May 2024), focusing on market discovery, commercial feasibility, and industry engagement.

- **EPSRC-DTP PhD Scholarship, College of Engineering, Swansea University** *(2021)*
  The scholarship covered **full tuition fees and stipend for 3.5 years**

- **Ministry of Communications Public Transport Hackathon – Second Place** 5,000 JOD (*£5,400) **(2018)***
  Awarded by the Ministry of Communications and Information Technology, Jordan.
  Recognised for the innovative development of a hardware system and mobile application (**Jordan Lines)** designed to enhance public transport services.

- **Graduation Projects Competition – Second Place 750 JOD** *(£810) (2017)*
  Awarded by the Electrical Engineers Association of Jordan for outstanding performance among the Electrical Engineering chapter.

- **Startup Weekend – 1st Place, Jordan – (1,000 JOD)** *(November 2015)*
  Secured first place at Startup Weekend in Jordan, and also achieved third place at Startup Weekend Middle East and fourteenth place worldwide.

- **Open Arabs Robotics Championship FLL – 1st Place (Scientific Research Competition)** *(2015)*
  Awarded first place for the scientific research competition at the Open Arabs Robotics Championship FLL.

- **IEEE RAStech JU – 1st Place Winner (Open Theme Projects Competition)** *(2015)*

- **IEEE RAStech JU Mega Sumo Robot Competition – 1st Place** *(2015)*

- **IEEE HU Sumo Competition – 3rd Place** *(2015)*

- **Honor Guest Team** *(2012)* Invited as the honoured guest team at the inauguration of the Gaming Lab with **H.H. King Abdullah II** at The Business Park, Amman.

- **App Challenge – Best Programming Award** *(2011)* - Winner of the Best Programming Award for the "Where2Jo" iPhone Application in the App Challenge competition.

Skillset and Expertise

- **Embedded Systems Development:** Experienced in designing and implementing embedded systems using platforms such as STM32, STM8, Espressif ESP32, and Arduino, enabling robust and efficient solutions.
- **LoRaWAN Device and Network Development:** Skilled in the end-to-end development of LoRaWAN devices—including PCB design, firmware programming, gateway configuration, and deployment of network servers—ensuring reliable long-range communication in IoT applications.
- **PCB Design and Multilayer Layout:** Experienced with various PCB CAD software tools for designing complex, multilayer boards, coupled with advanced soldering techniques for fine-pitch components (e.g. QFN packages and 0306 size components).
- **IoT Software and Cloud Architecture:** Proficient in developing IoT applications using Node-RED and NodeJS, alongside designing and administrating both SQL (MariaDB) and NoSQL (InfluxDB) databases.
- **Energy-Efficient and Sustainable IoT Solutions:** Expertise in designing low-power devices and energy harvesting systems, particularly those utilising ambient light, to achieve sustainable and efficient IoT operations.
- **Linux System Administration:** I can operate and manage Debian/Ubuntu Linux systems for server environments.
- **3D Design :** Competent in 3D modelling with **Fusion 360** supporting hardware design and prototyping for 3D printing.
- **Simulation and Modelling:** Adept in MATLAB and Simulink for power systems simulation, analysis, and validation of electronic circuits and embedded system designs.
- **Interdisciplinary Communication:** Able to effectively translate complex technical concepts into accessible language, serving as a **bridge between technical experts and non-technical stakeholders**. This enhances collaboration and ensures that IT system and hardware design decisions are clearly understood across diverse audiences.
- **Academic and Research Leadership:** As a PhD researcher in Electrical and Electronics Engineering specialising in IoT products, energy harvesting, and cloud architecture, I combine deep technical expertise with strong communication skills to drive research and interdisciplinary collaboration.

Patents and Design Rights

- Design for an Environmental Sensor, registered with **the UK Intellectual Property Office Design No. 6387456** (registered 29 Aug 2024)
- Environmental sensor (multi-sensor detector) – Registered Community **Design No. 015093712-0001, EU IPO** (registered 26 Feb 2025)

Zaid Haymoor - CV

He who fears climbing the mountains shall live forever in the pits

Academic Publications

1. Bailey, G.; Seunarine, K.; De, C. B.; Carnie, M.; Haymoor, Z.; Hyde, M.; Jones, B. H.; Jones, M.; Pearson, J.; Reitmaier, T. (2024). "Older Generation: Self-Powered IoTs, Home-Life and 'Ageing Well'." [DOI: 10.1145/3679318.3685410]
2. Seunarine, K.; Haymoor, Z.; Spence, M.; Burwell, G.; Kay, A.; Meredith, P.; Armin, A.; Carnie, M. (2024). "Light power resource availability for energy harvesting photovoltaics for self-powered IoT." *Journal of Physics: Energy*, 6(1), 015018. IOP Publishing.
3. Haymoor, Z.; Carnie, M. (2023). "Design and Implementation of a Portable IoT Source-Sink Meter for Indoor Photovoltaic System Characterisation in Real Environments." In *Proceedings of the 40th European Photovoltaic Solar Energy Conference and Exhibition (EU PVSEC 2023)*, Lisbon, Portugal, 18–22 September (Session 4BV.3.43). ISBN: 3-936338-88-4, 020333-005. [DOI: 10.4229/EUPVSEC2023/4BV.3.43]
4. Jarrah, A.; Haymoor, Z. S.; Al-Masri, H. M. K.; Almomany, A. (2022). "High-performance implementation of power components on FPGA platform." *Journal of Electrical Engineering & Technology*, 17(3), 1555–1571. Springer Nature.
5. Jamjoum, M.; Negry, R.; Haymoor, Z. (2022). "Transformers Efficiency Variability in Energy Hub Modelling." *Energy*, 2004, 2965.

Academic Conferences

1. **PVSAT 2025 (Upcoming, Swansea, UK)** – Oral presentation: *"Whole System Efficiency of Energy Harvesting Devices Powered by Next-Generation PV Technologies."*
2. **COATED M2A Annual Conference (9 April 2024, Swansea University, UK)** – Poster presentation (with 60-second teaser) on IoT and energy-harvesting concepts under M2RI.
3. **PVSAT 2024 (April 2024, Glasgow, UK)** – Oral presentation: *"The Use of Artificial Neural Network to Enhance MPPT Finding Methodology on Energy Harvesting Chips."*
4. **EU PVSEC 2023 (September 2023, Lisbon, Portugal)** – Poster presentation (Session 4BV.3.43): *"Design and Implementation of a Portable IoT Source-Sink Meter for Indoor Photovoltaic System Characterisation in Real Environments."*
5. **PVSAT 2025 (April 2025, Swansea, UK)** – Oral presentation: *"Whole system efficiency of energy harvesting systems powered by next-generation PV technologies."*

Industrial Conferences

1. The Things Conference – *Amsterdam, Netherlands (2024)*
Participated in this premier event dedicated to LoRaWAN® and IoT, engaging with industry leaders and **attending workshops** on the latest developments in low-power, wide-area networks.

2. Japan IT Week – *Tokyo, Japan (2024)*
Attended Japan's leading IT exhibition, encompassing various specialised conferences on topics such as IoT solutions, embedded systems, and information security, learning about cutting-edge technologies and market trends.

3. Hardware Pioneers Max – *London, UK (2024)*
Engaged with the UK's largest exhibition and conference dedicated to electronics, IoT connectivity, and embedded systems, the aim was to find the best latest energy harvesting and LoRa chips

4. Hardware Pioneers Max – *London, UK (2025)*
I was part of the hardware pioneers conference for the second year to update my knowledge and expertise about the latest and best hardware in the market.