

Mohammad Ahmad Bany Issa

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ACADEMIC QUALIFICATIONS:

- PhD. program of renewable energy and energy sustainability/Smart grids and control systems
universidad de santiago de compostela, Galicia, Spain
Degree Classification (Excellent with Honors) (2022-2025)
- MSc. Master Degree of electrical engineering/Power &Control
Jordan University of Science and Technology, Irbid, Jordan
Degree Classification (Very Good) (2016-2019)
- BSc. Bachelor of electrical engineering/Power &Control
Jordan University of Science and Technology, Irbid, Jordan
Degree Classification (Good) (2011-2016)

RESEARCH INTERESTS:

Integration of renewable energy in power systems, power electronics, control systems, energy management within smart grid technology, demand response programs, and battery energy management in the residential sector.

PUBLICATIONS:

Bany Issa, M. A., Blanco García, L., Costa, R., Al Muala, Z. A., & Bello Bugallo, P. M. (2025). The Impact of Grid-Connected Battery Storage Systems on Electrical Grid Variables. EESAP15 International Conference 2024, 22-23 October, Donostia / San Sebastián. Proceedings book. ISBN: 978-84-9082-982-0. P 10-17.

Al Muala, Z. A., Bany Issa, M. A., & Bello Bugallo, P. M. (2024). Integrating Life Cycle Principles in Home Energy Management Systems: Optimal Load PV–Battery–Electric Vehicle Scheduling. Batteries, 10(4), 138. <https://doi.org/10.3390/batteries10040138>

Issa, M. A. B., Al Muala, Z. A., & Bugallo, P. M. B. (2024). Simple solution of DC-offset rejection based phase-locked loop for single-phase grid-connected converters. Renewable Energy and Environmental Sustainability, 9, 4. <https://doi.org/10.1051/rees/2023024>

Al Muala, Z. A., Issa, M. A. B., Rodríguez, J. J. F., & Bugallo, P. M. B. (2024). Antecedents of energy consumption intention to usage by home energy management system: a case study of Galicia's homes in Spain. Renewable Energy and Environmental Sustainability, 9, 3. <https://doi.org/10.1051/rees/2024004>

Al Muala, Z. A., Bany Issa, M. A., Sansó-Rubert Pascual, D., & Bello Bugallo, P. M. (2023). Realistic home energy management system considering the life cycle of photovoltaic and energy storage systems. Sustainability, 15(14), 11205. <https://doi.org/10.3390/su151411205>

Bany Issa, M. A., Al Muala, Z. A., & Bello Bugallo, P. M. (2023). Grid-Connected Renewable Energy Sources: A New Approach for Phase-Locked Loop with DC-Offset Removal. *Sustainability*, 15(12), 9550. <https://doi.org/10.3390/su15129550>

Mohammad Bany Issa and Issam A. Smadi; Phase Locked Loop with DC-Offset Removal for Grid Synchronization. In *IECON 2019 - 45th Annual Conference of the IEEE Industrial Electronics Society* (Vol. 1, pp. 4669-4673). IEEE. <https://doi.org/10.1109/IECON.2019.8926845>

SCIENTIFIC CONFERENCES:

- XXVIII encontro galego-portugués de Química 13-15 November 2024, Vigo, Spain. (Presenter and Moderator)
- EESAP15, International Conference 2024, 22-23 October – Donostia-San Sebastián
- The 2nd International Electronic Conference on Machines and Applications, 18 – 20 June 2024 (Online)
- V International Conference on Didactics in Chemistry, held Online of Galicia (Spain), from May 23 to 25, 2024.
- X Encontro da Mocidade Investigadora (X EMI) 12-13 June 2023, Santiago de Compostela, Spain.
- World Renewable Energy Congresses XXI (WREC22) 4-9 December 2022 Western, Australia.
- XXVI encontro galego-portugués de Química 16-18 November 2022, Santiago de Compostela, Spain. (Presenter and Moderator)
- The 11th Jordanian International Electrical and Electronic Engineering Conference(JIEEEEC2019) 9 - 11 April 2019, Amman, Jordan.
- The 10th Jordan International Electrical and Electronics Engineering Conference (JIEEEEC 2017) 16 – 17 May 2017, Amman, Jordan.

PERSONAL SKILLS:

- Technical Expertise: understanding and hands-on experience with control systems, energy sustainability technologies, and smart grid infrastructure.
- Analytical Skills: Ability to analyze complex data, identify patterns, and develop innovative solutions to enhance energy efficiency and sustainability.
- Communication: Excellent written and verbal communication skills, with a track record of publishing research findings and presenting at academic conferences.
- Adaptability: Ability to quickly learn and adapt to new technologies and methodologies in the rapidly evolving field of renewable energy.
- Attention to Detail: Meticulous attention to detail, ensuring accuracy and precision in research and technical work.

LANGUAGES:

- Arabic: Mother Language.
- English: Fluent.
- Spanish: beginner's level (A2)

COMPUTER SKILLS:

- AUTOCAD
- MICROSOFT OFFICE Package Programs.
- MATLAB
- LABVIEW
- COMSOL Multiphysics
- PSIM
- C and C++ language programming.

TRAINING COURSES:

- Writing a Research Paper: 2nd Edition (14.5 hours)
- Writing and Publishing a Review Paper: 2nd Edition (4 hours)
- Narrative Tools for Researchers (8.5 hours)
- Research Integrity: Publication Ethics (7.5 hours)
- Effective Science Communication (6.5 hours)
- POWER SYSTEM PROTECTION (20 hours)
- SOLAR ENERGY (15 hours)

WORK OF EXPERIENCE:

- Irbid District Electricity Company (IDECO), Irbid Jordan. Distribution site engineer trainee working on the low and medium-voltage distribution lines. 1/Feb/2016 – 1/May/2019
- OMEGA LIFT For Electrical Elevators Company, Irbid. Operation and maintenance engineer for the low and medium current systems\ Irbid 27/May/2016 – 1/Jan/2019
- CRYSTELCALL, Senior officer 11/NOV/2019 – 8/Aug/2020
- CLEAN CITY Al Bee'ah Al Khadraa for hazardous waste treatment. Operation and maintenance engineer, low and medium current systems\9/Aug/2020 – 15/Aug/2021