

TAKWA SHAWKAT MANSOUR

Address: Irbid- Jordan | **Phone:** 0796419581 | **Email:** t.mansour@jadara.edu.jo

SUMMARY

Dedicated and detail-oriented Electrical Engineer with a Master's degree in Power and Control Engineering. Currently serving as a Lecturer at Jadara University with a focus on delivering comprehensive instruction in electrical power systems, renewable energy, and control theory. Proven track record in bridging complex academic theory with practical, real-world applications. Passionate about curriculum development, applied research, and mentoring students to achieve technical excellence in the rapidly evolving field of electrical engineering.

WORK EXPERIENCE

Lecturer, Technical College, Jadara University

Mar 2025 - Present

Key Responsibilities:

- Designing and delivering lectures for a wide range of electrical engineering courses, ensuring alignment with both academic standards and modern technical requirements.
- Fostering a practical learning environment by integrating real-world engineering problem-solving into the classroom and laboratory sessions.
- Providing academic mentorship and guidance to students, assisting them in their professional development and capstone projects.

Core Electrical Engineering Courses

- Fundamentals of Electrical & Electronics (Electrical & Electronic Circuits): Covering circuit laws, network analysis, and semiconductor physics.
- Electrical & Electronic Circuits Lab: Hands-on training in testing, troubleshooting, and validating circuit performance using standard test equipment.
- Electrical Machines Fundamentals: In-depth study of DC machines, transformers, and AC induction motors.

Advanced & Specialized Systems

- Electrical & Electronic Systems in Electric and Hybrid Vehicles: Exploring powertrain architecture, battery management systems, and charging technologies.
- Engineering Mathematics: Application of advanced mathematical techniques to solve complex electrical engineering problems.

Professional & General Courses

- Professional Practices in Green Economy: Analyzing the intersection of environmental sustainability and modern energy infrastructure.
- Customer Service Techniques & Islamic Culture.

Research Assistant, Jordan University of Science and Technology

Mar 2024 - Jul 2025

- Collaborated on advanced research projects, including literature reviews of emerging control techniques and electrical circuit optimization.
- Performed system simulation and modeling to validate experimental results, contributing to the development of robust control algorithms.
- Assisted in preparing technical reports and experimental documentation to support ongoing power and control engineering studies.

- Conducted experimental design and advanced data analysis in an R&D setting, focusing on performance optimization.
- Applied methodical problem-solving to address technical challenges in electrical system prototypes and experimental setups.

- Engineered end-to-end solar power solutions, including both off-grid and on-grid PV system configurations.
- Performed site analysis, component selection, and system sizing to ensure optimal power generation and cost-efficiency.

EDUCATION

- Thesis: "A Novel Hybrid Static Offset Voltage Calibration Technique for Dynamic Compactor Using Bulk Voltage and Shunt Current Trimming Techniques."
- Developed specialized techniques to enhance the performance and accuracy of dynamic comparators, gaining expertise in microelectronics and precision control.

- Graduation Project: Designed a versatile multi-charger power bank capable of integrating multiple energy sources (PV cells, mechanical movement, DC batteries, and USB interfaces) to charge low-power devices.

SKILLS

TECHNICAL EXPERTISE	PROFESSIONAL SKILLS
• Software: MATLAB, ETAP, PV-Syst, AutoCAD, Proteus, Spice Simulator. • Engineering: Power System Analysis, Control Theory, Renewable Energy Systems, Circuit Design.	• Strong analytical and problem-solving skills with a focus on system efficiency. • Excellent communication and pedagogical techniques for academic settings. • Proficient in technical documentation and scientific report writing.

LANGUAGE & CERTIFICATIONS

Arabic: Native | English: Very good (B2 level)

- Certificate of Reviewing: Computers & Electrical Engineering Journal (Elsevier, 2024).
- Member of the Jordanian Engineers Association.

PUBLICATIONS AND RESEARCH

- A novel hybrid static offset voltage calibration technique for dynamic comparators using bulk voltage and shunt current trimming techniques: <https://doi.org/10.1016/j.vlsi.2025.102365>