Dr. –Ing. Mathhar Bdour

Curriculum Vitae

Energy Engineering Department
School of natural resources engineering and management
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PERSONAL DATA

Date of Birth : May 30, 1987
Place of birth : Irbid – Jordan
Nationality : Jordanian
Sex : Male
Marital Status : Married

EDUCATION

PhD, Electrical power generation from residual biomass by combustion in externally fired gas turbine (EFGT), 2017, **Rostock University**, Germany.

M.Sc., Electrical Power Engineering, 2012, **Yarmouk University**, Irbid, Jordan.
Thesis topic is "Analysis of impact of large scale photovoltaic solar systems on the power quality in distribution networks".

B.Sc., Electrical Power Engineering, 2010
Yarmouk University , Irbid, Jordan

EXPERIENCES

July/2017 – till now : Assistant professor in German Jordanian University
April/2013 – July/2017 : Researcher at DBFZ Deutsches Biomasseforschungszentrum gemeinnützige GmbH (DBFZ)
June/2011 – April/2013 : Research and teaching assistant at German Jordanian University.
Sep/2010 - Jan/2011 : Research and teaching assistant at Yarmouk University.
Oct/2009 – Dec/2009 : Training in Irbid District Electricity (IDECO).
June/2009 – Oct/2009 : Training in National Electric Power Company (NEPCO).

RESEARCH AND TEACHING ACTIVITIES

List of activities (papers, presentations, and posters).

1. Poster, "Biomass utilization in a flexible designed micro externally fired gas turbine (EFGT) with hardware-in-the-loop concept (HiL)" DBFZ Jahrestagung, September 2016.
2. "Evaluation of dynamic operation of a biomass fired Externally Fired Gas Turbine (EFGT) with a Hardware-in- the-Loop (HiL) concept", 5th Central European Biomass Conference CEBC from 18th to 20th of January 2017 in Graz/Austria.
3. Accepted paper, "Determination of Determination of Optimized Parameters for the Flexible Operation of a Biomass-Fueled, Microscale Externally Fired Gas Turbine (EFGT)"; *Energies*, vol. 9 (2016), no. 10, p. 856, (doi:10.3390/en9100856).
4. Evaluation of biogas production from the co-digestion of municipal food waste and wastewater sludge at refugee camps using an automated methane potential test system, M Al-Addous, MN Saidan, M Bdour, M Alnaief, Energies 12 (1), 32 (2019)
5. A new maximum power point tracking (mppt) algorithm for thermoelectric generators with reduced voltage sensors count control, Z Dalala, O Saadeh, M Bdour, Z Zahid, Energies 11 (7), 1826 (2018)

Research:

Participation in two research projects at German Jordanian University:

1. standalone photovoltaic generation system used for desalination process
2. solar heating project

Lab supervision:

- Electrical circuits I and II.
- Analogue Electronics.
- Renewable Energy Resources assessment Lab (Solar power units, Wind generation turbines, solar heating apparatus and Biomass apparatus).
- Fuel cell and hydrogen lab.

Teaching assistant for the following courses:

- Electrical Distribution systems.
- Engineering Economics.
- Electrical circuits.

COMPUTER SKILLS

- PowerWorld simulator.
- Circuit Maker.
- M.S Office.
- Matlab & Simulink
- LabView
- Tina software
- PVsol
- Aspen Plus
- Codesys

TRAINING COURSES

- Dimensioning of lighting and electrical installation on computer (Calculux & DOCwin programs)
- Specifications of transmission and distribution networks.
- Electrical machines control.
- Circuit Breaker operation and maintenance.
- PLC.
- The bases of household electrical wiring.
- Electrical Transformers operation, maintenance and testing.
- Cables design.
- High Voltage Laboratory and transmission lines simulation.
- MATLAB and Simulink.

LANGUAGES

- Arabic (Native)
- English (Excellent)
- German (good)

REFERENCES

- Prof. Dr.-Ing. Andreas Ortwein, Hochschule Merseburg, Tel. +49 3461 46-3905, E-Mail:andreas.ortwein@hs-merseburg.de