

# Sahban Alnaser Curriculum Vitae

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## Education

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| <b>2011-2015</b> | <b>Ph.D in Electrical Engineering</b><br>The University of Manchester, Manchester, UK.<br>Electrical Energy and Power Systems<br>Thesis Title: Control of Distributed Generation and Storage:<br>Operation and Planning Perspectives |
| <b>2005-2008</b> | <b>M.Sc in Electrical Engineering</b><br>The University of Jordan, Amman, Jordan   |
| <b>2000-2005</b> | <b>B.Sc in Electrical Engineering</b><br>The University of Jordan, Amman, Jordan   |

## Employment

### Academic Experience

**Assistant Professor at The University of Jordan (Sept 2016- Present)**

**Research Associate in Network Integration of PV, part of the UK EPSRC project “Whole System Impacts and Socio-economics of wide scale PV integration (WISE PV)”, The University of Manchester, UK, (April 2015- August 2016)**

1. Techno-economic impacts of small to medium scale PV systems connected to MV and LV distribution networks by using probabilistic impact studies.
2. Quantify the effects of controlling domestic storage facilities for consumers and network benefits.
3. Quantify the benefits of real-time coordinated control strategies including the use of voltage control devices, storage facilities and energy curtailment.

**M.Sc Project Mentors at The University of Manchester, UK (2011-Present)**

1. Co-supervise MSc projects related to planning and control approaches in future MV/LV distribution networks with low carbon technologies.

### Industrial Experience

**Consultant for the 5-year master plan and the GIS project at the Electricity Distribution Company (EDCO), Jordan (Jan 2010 - Jan 2011).**

**Head of Power System Studies Section, EDCO, Jordan (Jan 2008 - Jan 2010)**

**Distribution Network Planning Engineer, EDCO, Jordan (May 2005 - Jan 2008)**

1. Techno-economic master plan studies for MV and LV distribution networks.
2. Load flow, short circuit studies required for new network users.
3. Econometric and spatial load forecasting studies.
4. Build Geographical Information Systems (GIS) database model of distribution networks

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5. Revision of regulation codes including Distribution Performance Standard, Grid Code and Distribution Code, and revision of distribution connection charges.

## Trainings

1. EPRI Workshop on Distribution Network Modeling for the Smart Grid, UK, 2011.
2. Series of courses on Distribution Network Planning, Jordan, 2009-2010. Provided by Mercados Energy Market International, Spain.
3. Building Geodatabase for electricity Distribution Networks, Jordan, 2009. Provided by AED-SICAD, Germany.
4. ArcFMUT Functionality and administration, Jordan, 2009. Provided by AED-SICAD, Germany.
5. Distribution and Transmission Tariff Setting-Methodologies and procedures, Jordan, 2007. Provided by Mercados Energy Market International, Spain.
6. Electrical Load Forecasting, Jordan, 2006. Organized by IEE Jordan Center.
7. Reduction of Power System Losses, Jordan, 2006. Organized by IEE Jordan Center.
8. CYMDIST/CYMTCC Distribution System Analysis Software. Jordan, 2005. Provided by CYME International T&D, Canada.

## Publications

1. S. W. Alnaser and L. F. Ochoa, "Optimal sizing and control of Energy Storage in Wind Power-Rich Distribution Networks", IEEE Trans. on Power Systems, 2016.
2. J. Quiros, L.F. Ochoa, S.W. Alnaser, T. Butler, " Control of EV Charging Points for Thermal and Voltage Management of LV Networks", IEEE Trans. on Power Systems, 2016.
3. S. W. Alnaser and L. F. Ochoa, "Advanced Network Management Systems: A Risk-Based AC OPF Approach", IEEE Trans. on Power Systems, 2015.
4. S. W. Alnaser and L. F. Ochoa, "Advanced Network Management Systems: A Risk-Based AC OPF Approach", IEEE/PES PowerTech 2015.
5. S. W. Alnaser and L. F. Ochoa, "Hybrid controller of energy storage and renewable DG for congestion management," IEEE/PES General Meeting, 2012.
6. S. W. Alnaser and L. F. Ochoa, "Towards Distribution Energy Management Systems: Maximising Renewable DG," 22<sup>nd</sup> International Conference on Electricity Distribution CIRED 2013.
7. S. W. Alnaser and L. F. Ochoa, "Distribution Network Management System: An AC OPF Approach," IEEE/PES General Meeting 2013.

## Skills

1. Distribution systems analysis software; OpenDSS, CymDIST, IPSA and PowerWorld.

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2. Develop codes for control and optimization of distribution networks.
3. Develop optimization codes using the optimization modelling software AIMMS.
4. Model distribution networks using Real-Time Digital Simulator (RTDS).
5. Experience of using OpenDSS and AIMMS with VBA.

## Memberships

1. Member of the Institute of Engineering & Technology (IET) (2012 - Present).
2. Member of the Institute of Electrical and Electronic Engineers (IEEE) (2011 - Present).
3. Member of the Society of Jordanian Engineers (2005 - Present).

## Reviewing for Journals

1. IEEE Transactions on Power Systems.
2. IEEE Transactions on Power Delivery.
3. IEEE Transactions on Smart Grids.
4. IET Generation, Transmission & Distribution.
5. Electric Power Systems Research.

## Languages

1. English: Professional working proficiency
2. Arabic: Native.