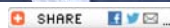


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Dr Ali Arefi

PhD, MSc, BSc

Senior Lecturer in Electrical Engineering, IEEE Senior Member

About me

Ali Arefi received a B.Sc. (Honours), M.Sc., and Ph.D. all in electrical engineering in 1999, 2001, and 2011, respectively. He has been a lecturer and Research Fellow in Queensland University of Technology (QUT) since 2012. During this time, he has developed an automated tool for optimal investment strategy in electric distribution networks over large areas and long planning horizons for Energy Queensland Limited. He is a chief investigator in the awarded Discovery Project titled "Transition to Customer Response Driven Networks", which is funded \$390k by Australian Research Council (ARC) in 2015. Moreover, he is contributor/author of two research grants including Linkage Project funded more than \$0.5M by ARC and supply industry. He is an IEEE Senior member and a member of several IEEE Working Groups and Committee and Task Force. He has more than six years' experiences with electric distribution industry. He has been the consultant for 5 industry-funded research projects. He has also carried out energy audits and power quality analysis for more than 30 factories and electric distribution networks. Moreover, he has delivered many talks for industries in the field of energy efficiency and power quality. His research interests are mainly in the areas of sustainable electric distribution planning, state estimation, and energy efficiency.

Industrial activities:

- Consultant in and Supervisor of the Research Project on Technical Requirements of [Distributed Generation \(2 to 25 MW\) Interconnection](#) with Electric Distribution Network.
- Supervisor of the Research Project on Economic and Integrated [Planning of Active Distribution Network](#). (the outcome of this project has been commercialised.)
- Consultant in and Supervisor of the Research Project on Electric Loss Reduction and Determination for [Modern \(Smart\) Electric Distribution Networks](#).
- Consultant in and Supervisor of the Research Project of Power Quality Improvement and Determination in [Modern \(Smart\) Electric Distribution Networks](#).
- Consultant in and Supervisor of the Research Project of Technical and Economic Study of Power Quality Improvement in [Modern Electric Distribution Networks](#).
- Consultant in Knowledge Transfer from SIEMENS Co. in [Efficient and Cost-effective Electric Distribution Network](#).
- Consultant in Examining the Performance of Energy Optimization Devices.
- Consultant in Distributed Generation for [Interconnection Analysis](#) of Hydro/Pump Storage Power Plant (600 MW) with the 230 kV or 400 kV power Network and [Feasibility Study](#) of Hydro Power Plant (20MW) and interconnection with distribution network as well as tender documents preparation.
- Technical Analyst and Manager in Power Quality / Power Electronics
- Supervisor of Tool Development for [Power Quality Analysis and Power Electronic Device Diagnosis](#). Using this tool, many power quality and energy analyses have been conducted.
- Consultant in Electric Power Quality and Energy Saving for Electric Power Companies.

Teaching area

Research areas

My research interests are in the areas of:

- Electric distribution network:

Sustainable and resilient planning of power delivery system, Microgrids, Smart Grids, State Estimation, Power Quality, and Electric Loss Reduction.

- Energy Efficiency:

Renewable Integration, Zero Emission Technologies, and Motor Drives

Current projects

Awards and grants

Events and speaking engagements

Professional and community service

Doctoral and masters supervisions

Publications

Selected Publications

▪ Books and Book chapters:

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- Technical Reports:
 - [Ali Arefi](#), G. Ledwich, "Electric Distribution Network Planning Including New Zone Substation Placement", Project Milestone Report for the ARC Linkage Project "Planning Future Energy Grids for Renewables", Queensland University of Technology, Brisbane, Australia, pp 47-60, April 2014.
 - [Ali Arefi](#), G. Ledwich, G. Nourbakhsh, "Incorporating Reliability in Electric Distribution Planning", Project Milestone Report for the ARC Linkage Project "Planning Future Energy Grids for Renewables", Queensland University of Technology, Brisbane, Australia, pp 14-23, Aug. 2013.
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