



DR. MUHAMAD ZALANI BIN DAUD

My research interests are in the development of intelligent control techniques for renewable energy (RE)-based distributed generation (DG) such as photovoltaic, wind and wave energy generation systems. I am working on combining these RE sources with the battery energy storage to solve the common issues in RE generation such as generation intermittency, power fluctuation, voltage unbalance and other power quality problems. My research includes the application of heuristic optimization approach for the control system such as the genetic algorithm, particle swarm optimization, gravitational search algorithm and also consideration of the development of new or improved algorithms for such purposes. The interconnection problems between DG and electricity grid should be minimized in order to allow more penetration of RE sources to the electricity grid and consequently minimizing the use of conventional non-renewable generation of electricity.



Senior Lecturer
(DS51)



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Expertise Area

Main Field	: Electrical and Electronic Engineering
Sub Field	: Renewable energy
Specialization	: Photovoltaic system and energy storage

Professional Membership

- Board of Engineers Malaysia, Graduate Engineers, November 2014 – Present
- Institution of Electrical and Electronic Engineers, Member, October 2006 – Present

Networking & Collaboration

- Universiti Kebangsaan Malaysia

Publication Reference

- Google Scholar Citations - Muhamad Zalani Daud
- http://www.researchgate.net/profile/Muhamad_Zalani_Daud/publications
- <http://orcid.org/0000-0003-3003-3068>
- <http://www.scopus.com/authid/detail.url?authorId=55348149900>