

DR. MAKBUL A.M. RAMLI

Professor, Electrical and Computer Engineering Dept., King Abdulaziz University

Education

<i>Degree</i>	<i>Field of Study</i>	<i>Institution</i>	<i>Year</i>
Dr. Eng	Energy	Nagaoka Univ. Tech., Japan	2005
MEng	Electrical Engineering	Institute of Tech. Bandung, Indonesia	2000
BS	Electrical Engineering	Tanjungpura University, Indonesia	1995

Academic Experience

<i>From</i>	<i>To</i>	<i>Institution</i>	<i>Rank</i>	<i>Title</i>	<i>Full or Part Time</i>
2000	2006	Tanjungpura Univ.	Lecturer		Full Time
2006	2010	Univ. Teknologi Malaysia	Assist. Prof.		Full Time
2010	2010	Univ. Teknologi Malaysia	Assoc. Prof.		Full Time
2010	2013	Umm Al-Qura Univ.	Assoc. Prof.		Full Time
2013	2016	King Abdulaziz Univ.	Assoc. Prof.		Full Time
2016	Date	King Abdulaziz Univ.	Professor		Full Time

Non-Academic Experience (Including Consultations)

2009	2010	Taibah University, Saudi Arabia	EE Consultant	Development of Engineering Labs	Part Time
2009	2010	Proton, Malaysia	Team member	Flagship Electric Vehicle Project	Part Time

Funded Research Projects and Patents From The Last Five Years

1. KAU Distinct Research Grant, "Optimization of PV Panels Tilt Angle using Vortex Search Algorithm: Saudi Arabia Case Study, PI, 2017–2018.
2. KAU General Research Grant, "Optimization of Wind/Diesel Microgrid with Energy Storage System Using an Adaptive Mutation Differential Evolution Algorithm", PI, 2016–2017.
3. KAU General Research Grant, "Design of A Dust Accumulation Monitoring System for Photovoltaic Panels", PI, 2016–2017.
4. KAU Distinct Research Grant, "Investigation of Wind Characteristics and Return on Investment of Wind Power Systems in the Coastal Area of Saudi Arabia", PI, 2016–2017.
5. KAU Distinct Research Grant, "Techno-economic Energy Analysis of Wind/Solar Hybrid Power Systems on the West Coastal Area of Saudi Arabia, PI, 2015–2016.
6. KAU Distinct Research Grant, "Application of Machine Learning Methods in Predicting Solar Data to Determine the Energy Requirements of Selected Regions in Saudi Arabia", PI, 2014–2015.
7. KAU General Research Grant, "A Maximum Power Point Tracking Method Using Differential Evolution for Partially Shaded Photovoltaic System", PI, 2014–2015.

Honors and Awards

1. Japan-International Cooperation Agency (JICA) scholarship, 1997–2000.
2. Ministry of Education, Sport, Culture, Science and Technology, Japan scholarship, 2002–2005.
3. Fellowship from the National Science Council of Taiwan for International Training and Research Program in Renewable Energy and Environment, 2008.
4. Marquis Who's Who in the World, 2008 and 2009.
5. Bronze Medal, 11th Industrial Art and Technology Exhibition, UTM, 2009.
6. Bronze Medal, 9th Malaysia Technology Expo and Invention & Innovation Competition 2010 (MTE 2010), Kuala Lumpur, 2010.
7. Bronze Medal, 12th Industrial Art and Technology Exhibition, UTM, 2010.

Institutional and Professional Services

Principal Publications/Presentations from the Past Five Years

1. Makbul AM Ramli, HREH Boucekara, Abdulsalam Alghamdi, "Optimal Sizing of PV/wind/diesel hybrid microgrid system using multi-objective self-adaptive differential evolution algorithm", *Renewable Energy*, Vol. 121, pp. 400-411, 2018.
2. Makbul AM Ramli, HREH Boucekara, "Estimation of solar radiation on PV with optimal tilt angle using Vortex Search algorithm", *IET Renewable Power Generation*, Vol. 12(10), pp. 1138-1145, 2018.
3. Hassan Z Al Garni, Anjali Awasthi, Makbul AM Ramli, "Optimal design and analysis of grid-connected photovoltaic under different tracking systems using HOMER", *Energy Conversion and Management*, Vol. 155, pp. 42-57, 2018.
4. Khaled Sedraoui, Makbul AM Ramli, Ibrahim M. Mehedi, Muhammad Hasbi, Ayong Hiendro, "Optimum orientation and tilt angle for estimating performance of photovoltaic modules in western region of Saudi Arabia", *Journal of Renewable and Sustainable Energy*, Vol. 9(2), No. 023702, 2017.
5. Makbul AM Ramli, Ssennoga Twaha, Abdulaziz Aghamdi, "Energy production potential and economic viability of grid connected wind/PV energy systems at Saudi Arabian coastal areas", *Journal of Renewable and Sustainable Energy*, Vol. 9(6), No. 065910, 2017.
6. Makbul AM Ramli, Ssennoga Twaha, Zakariya Al-Hamouz, "Analyzing the potential and progress of distributed generation applications in Saudi Arabia: The case of solar and wind resources", *Renewable and Sustainable Energy Reviews*, Vol. 70, pp. 287-297, 2017.
7. Makbul AM Ramli, Ssennoga Twaha, Yusuf A Al-Turki, Kashif Ishaque, "A review on maximum power point tracking for photovoltaic systems with and without shading conditions", *Renewable and Sustainable Energy Reviews*, Vol. 67, pp. 144-159, 2017.
8. Makbul AM Ramli, Eka Prasetyono, Ragil Wicaksono, Novie A Windarko, Khaled Sedraoui, Yusuf A Al-Turki, "On the investigation of photovoltaic output power reduction due to dust accumulation and weather conditions", *Renewable Energy*, Vol. 99, pp. 836-844, 2016.
9. Tarek O Kaddoura, Makbul AM Ramli, Yusuf A. Al-Turki, "On the Estimation of the Optimum Tilt Angle of PV Panel in Saudi Arabia", *Renewable and Sustainable Energy Reviews*, Vol. 65, pp. 626-634, 2016.
10. Makbul AM Ramli, Ayong Hiendro, Yusuf A. Al-Turki, "Techno-economic Energy Analysis of Wind/Solar Hybrid System: Case Study for Western Coastal Area of Saudi Arabia", *Renewable Energy*, Vol. 91, pp. 374-385, 2016.
11. Ssennoga Twaha, Makbul AM Ramli, PM Murphy, MU Mukhtiar, HK Nsamba, "Renewable Based Distributed Generation in Uganda: Resource Potential and Status of Exploitation", *Renewable & Sustainable Energy Reviews*, Vol. 57, pp. 786-798, 2016.
12. Makbul AM Ramli, Ssennoga Twaha, Yusuf A. Al-Turki, "Investigating the Performance of Support Vector Machine and Artificial Neural Networks in Predicting Solar Radiation on A Tilted Surface: Saudi Arabia Case Study", *Energy Conversion and Management*, Vol. 105, pp. 442-452, 2015
13. Makbul A. M. Ramli, Kashif Ishaque, Faizan Jawaid, Yusuf A. Al-Turki, Zainal Salam, "A modified differential evolution based maximum power point tracker for photovoltaic system under partial shading condition", *Energy and Buildings*, Vol. 103, pp. 175-184, 2015.
14. Makbul A. M. Ramli, S. Twaha, "Analysis of Renewable Energy Feed-in Tariffs in Selected Regions of the Globe: Lessons for Saudi Arabia", *Renewable & Sustainable Energy Reviews*, Vol. 45, pp. 649-661, 2015.
15. Makbul A. M. Ramli, Ayong Hiendro, S. Twaha, "Economic Analysis of PV/Diesel Hybrid System with Flywheel Energy Storage", *Renewable Energy*, Vol. 78, pp. 398-405, 2015.
16. Makbul A. M. Ramli, Ayong Hiendro, K. Sedraoui, S. Twaha, "Optimal Sizing of Grid-Connected Photovoltaic Energy System in Saudi Arabia", *Renewable Energy*, Vol. 7, pp. 489-495, March 2015.

Recent Professional Development Activities (Workshops, Trainings etc.)

1. Invited General Lecture on Renewable Energy Sources for Distributed Generation, Kalimantan Institute of Technology, 21 August 2018.
2. Invited General Lecture on Distributed Energy Resources, Faculty of Industrial Technology, Islamic University Indonesia, 27 July 2018.
3. Invited One Day Workshop on Writing Scientific Paper, Faculty of Engineering, Sumbawa University of Technology, 24 July 2018.
4. Invited General Lecture on Renewable Energy and Alternative Energy, Faculty of Science and Technology, Alauddin State Islamic University of Makassar, 19 July 2018.