Dr. Ahmed Bilal Awan

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Electrical and Computer Engineering Department,
College of Engineering and Information Technology,
Ajman University, United Arab Emirates.

Education:

Qualification	University	Year
PhD Electrical Engineering	University of Lorraine, **Nancy, France**	**2007~2011**
Thesis Title	Contribution to the Stability Investigation of Distributed Power Systems	
MS Electrical Engineering	SUPELEC (École supérieure d'électricité) Gif Campus, **Paris, France**	**2006~2007**
Thesis Title	Stability Analysis of Cascade DC–DC Converters with Input Filter	
BE Electrical Engineering	University of Engineering and Technology **Lahore, Pakistan**	**2001~2004**
Project Title	Design of Protection Scheme of 500 kV Transmission Line at Rewat, Pakistan	

Experience:

August 2020 ~ Present

Ajman University, United Arab Emirates — **Assistant Professor**

Undergraduate Courses: Renewable Energy Systems, Smart Grid Renewable Energy Systems, Power Systems and Electric Machines, Power System Analysis, Electrical Power Distribution Systems, Renewable Energy Systems Lab, Power Systems and Electric Machines Lab, Report writing and presentation

Feb 2014 ~ August 2020

Majmaah University, Saudi Arabia — **Assistant Professor**

Undergraduate Courses: High Voltage Engineering Systems, Power Systems Protection, Power Electronics, Automatic Control Systems, Power Distribution Planning, Power Systems Analysis, Fundamentals of Electric Circuits, Electric Circuit Analysis, Fundamentals of Electrical Power Systems, Basic Electronic Devices and Circuits, Principles of Electric Machines, Electric Machines-2, Electrical Measurement and Instrumentation, Electrical Measurements & Control Lab, Machine Lab, Electronic Devices Lab

E-Learning Courses: Prepared two Electronic Learning courses (Fundamentals of Electrical Power Systems and Electric Circuits) for the Deanship of E-Leaning and Distance Learning

Chair: Senior Design Committee, Electrical Engineering Department
Chair: Research and Community Services Committee, Electrical Engineering Department
Member: ABET Accreditation Committee**,** Electrical Engineering Department
Member: Lab Development Committee**,** Electrical Engineering Department
Member: Quality Assurance Committee, Electrical Engineering Department
Member: Undergraduate Program Committee, Electrical Engineering Department
Member: Master's Program Committee, Electrical Engineering Department
Member: Senior Design Committee, College of Engineering
Member: Research and Development Committee, College of Engineering

Research Project: Majmaah University 2015, Majmaah University 2017, Majmaah University 2018, Majmaah University 2019, Majmaah University 2020
Research Group: Lead researcher of renewable energy research group, Majmaah University from 2018-2020.

Mar 2012 ~ Feb 2014	**COMSATS Institute of Information Technology (CIIT), Pakistan** **Masters Courses:** Advanced Power Electronics, High Voltage DC Transmission **Undergraduate Courses:** Automatic Control Systems, Power Electronics, Electric Machines **MS Students:** Supervised eight MS students **PhD Students:** Supervised two PhD students	**Assistant Professor**
Feb 2012 ~ June 2012	**National University of Science and Technology (NUST), Pakistan** **Undergraduate Courses:** Automatic Control Systems	**Assistant Professor (Visiting)**
Dec 2007 ~ Dec 2011	**ENSEM (National School of Electrical and Mechanical Engineering), INPL, University of Lorraine, France**	**Research Scholar**
Mar 2005 ~ Mar 2006	**The University of Faisalabad, Faisalabad, Pakistan** **Undergraduate Courses:** Control Systems, Electronics, Circuit Analysis, Machines	**Lecturer**

Course Development Experience:

- Developed four new courses in the department of Electrical and Computer Engineering, Ajman University
- Design and developed experiments for Renewable Energy Systems Lab, department of Electrical and Computer Engineering, Ajman University
- Member of Power and Renewable Energy Curriculum Committee, department of Electrical and Computer Engineering, Ajman University
- Member of undergraduate curriculum development unit to update and upgrade courses, department of Electrical Engineering, Majmaah University
- Prepared two Electronic Learning courses (Fundamentals of Electrical Power Systems and Electric Circuits) for the Deanship of E-Leaning and Distance Learning, Majmaah University
- Actively participated in developing course specifications of new courses, Majmaah University
- Member of ABET accreditation unit where I actively participated in deciding and developing course learning outcomes and students learning outcomes for many courses.
- Member of the master's program committee responsible for the newly proposed master's program in Renewable Energy which is under the approval stage (Majmaah University).
- Participated in developing new courses for the master's program (Majmaah University).

Teaching Tools/Electronic Educational Systems: Blackboard, D2L, Edugate, Moodle, Banner.

Engineering Software: Matlab, Simulink, Sketchup, EnergyPlus (NREL), HOMER, System Advisor Model (SAM NREL), Helioscope, Origin, PSpice, SolarPilot

Awards:

- Certificate of appreciation or participating as a judge in the 15th IEEE UAE Student Section awards 2021
- Distinguish instructor award for the academic year (2017-2018) in recognition of distinguished contribution to Electrical Engineering Department, Majmaah University
- Best researcher of Electrical Engineering Department, Majmaah University
- Certificate for exceptional work in ABET Accreditation, Majmaah University
- Certificate for exceptional work in community services, Majmaah University
- Certificate of appreciation for preparing Electronic Course of "Electric Circuits Analysis" course in

Majmaah University

- Certificate of appreciation for preparing Electronic Course of "Fundamentals of Electrical Power System" course in Majmaah University
- Distinguish Senior Design supervisor award, Majmaah University
- Won merit scholarship for MS leading to PhD from a joint program of French Government and Higher Education Commission of Pakistan

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Workshops Presentations:

1. HOMER, College of Engineering, Majmaah University, 2018
2. System Advisor Model, College of Engineering, Majmaah University, 2017
3. Ahmed-Bilal AWAN, "Stability Analysis of Electrical System with Input LC Filter", Annual convention of Ecole Doctorale, Informatique Automatique Electronique Electrotechnique Mathématique (IAEM), June 15, 2009, Lorraine, France
4. Ahmed-Bilal AWAN, "Basic Stability Approach for a system with Input Filter", Poster presentation at Doctoriales de Lorraine, Nancy University, France, May 17, 2010

Senior Design Advisor (Undergraduate): Some selected projects

- Design and implementation of Energy Efficient Buildings
- Design and implementation of solar PV self-cleaning system
- Design of a wind powered car
- Design of Linear Fresnel based CSP system
- Design and Implementation of a dual axis sun tracking system for solar PV installation
- Design and implementation of a solar PV system for a small home
- Design and Implementation of Concentrated Solar Power PID Controlled Parabolic Dish
- Design a back-to-back converter for wind power application

Research Interests:

Renewable Energy, Hybrid Renewable Energy Systems, Distributed Power Generation, Stability Investigation of Distributed Power Systems, Energy optimization, Net Zero Energy Buildings, Sustainable Cities.

Funded Research Projects:

Ajman Universit**y 2021:** Design and optimization of solar based electrical power generation system and study the impact energy storage system.

Majmaah University **2020:** Efficient and cost-effective energy solutions to maximize the potential of renewable energy in Saudi Arabia

Majmaah University **2020:** Optimization of concentrated solar power hybrid system

Research Group **2019:** Lead researcher of renewable energy research group at Majmaah University.

Majmaah University **2019:** Design and comparative analysis of concentrated solar power vs. photovoltaic systems

Majmaah University **2018:** Rooftop photovoltaic potential and energy saving due to shedding effect from PV panels on residential, commercial and government buildings in the Kingdom of Saudi Arabia.

Majmaah University **2017:** Solar photovoltaic based electrical power generation potential of the Kingdom of Saudi Arabia.

Majmaah University **2015:** Feasibility of technical potential and calculation of payback period of rooftop solar PV systems in the city of Majmaah, province of Riyadh, K.S.A.

Scopus Indexed Journals Publications (Total Science Citatio n Indexed Impact Factor: 177.707)

49 Muhammad Tamoor, Salman Habib, Abdul Rauf Bhatti, Arslan Dawood Butt, **Ahmed Bilal Awan** and Emad M. Ahmed, Designing and Energy Estimation of Photovoltaic Energy Generation System and Prediction of Plant Performance with the Variation of Tilt Angle and Interrow Spacing, Sustainability, vol 14, article 667, January 2022 (**Impact Factor 3.251) (Q1 AU rank-A)** 10.3390/su14020627

48 Naveed Ashraf, Ghulam Abbas, Nasim Ullah, Ahmad Aziz Al-Ahmadi, Abdul Rehman Yasin, **Ahmed Bilal Awan** and Mohsin Jamil, A Transformerless AC-AC Converter with Improved Power Quality Employed to Step-Down Power Frequency at Output, energies, vol 15, pages 667-1-20, January 2022 **(Impact Factor 3.004) (Q1 AU rank-A)** 10.3390/en15020667

47 Abdul Rauf Bhatti, **Ahmed Bilal Awan**, Walied Alharbi, Zainal Salam, Abdullah bin Humaid, Praveen R. P., Kankar Bhattacharya, An Improved Approach to Enhance Training Performance of ANN and the Prediction of PV Power for Any Time-span without the Presence of Real-time Weather Data, Sustainability, vol 13, article 11893, October 2021 (**Impact Factor 3.251) (Q1 AU rank-A)** 10.3390/su132111893

46 Yawar Ali Sheikh, Muhammad Umar Maqbool, Arslan Dawood Butt, Abdul Rauf Bhatti, **Ahmed Bilal Awan**, Kashif Nisar Parsha, Impact of rooftop photovoltaic on energy demand of a building in a hot semi-arid climate, Journal of Renewable and Sustainable Energy, October 2021 **(Impact Factor 2.219) (Q2 AU rank-B)** 10.1063/5.0063044

45 Naveed Ashraf, Ghulam Abbas, Nasim Ullah, Ahmed Aziz Alahmadi, **Ahmed Bilal Awan**, Muhammad Zubair, Umar Farooq, A Simple Two-Stage AC-AC Circuit Topology Employed as High-Frequency Controller for Domestic Induction Heating System, Applied Sciences, vol 11, pages 1-15, September 2021 **(Impact Factor 2.679) (Q2 AU rank-B)** 10.3390/app11188325

44 Ali Siddique, Abdul Rauf Bhatti, Ahmed Bilal Awan, Arsalan Dawood Butt, Ali S. Alghamdi, Muhammad Farhan, Nadia Rasheed, Efficient video transmission - a critical review of various protocols and strategies, Journal of the Chinese Institute of Engineers, September 2021 **(Impact Factor 1.141) (Q2 AU rank-B)** 10.1080/02533839.2021.1977713

43 Muhammad Zubair, **Ahmed Bilal Awan**, Mohammed Abdul Baseer, Mohammad Nadeem Khan, Ghulam Abbas, Optimization of parabolic trough based concentrated solar power plant for energy export from Saudi Arabia, Energy Reports, vol 7, pages 4540-4554, November 2021, **(Impact Factor 6.87) (Q2 AU rank-B)** 10.1016/j.egyr.2021.07.042

42 Muhammad Zubair, **Ahmed Bilal Awan**, Optimization of Photovoltaic Energy Systems for Residential Customers in Hot Climate Areas Based on Seasonal and Average Daily Load Profile, Energy Technology, vol 9, article 2100036 ,July 2021, **(Impact Factor 3.631) (Q1 AU rank-A)** 10.1002/ente.202100036

41 Muhammad Zubair, **Ahmed Bilal Awan**, Economic viability of solar energy export from the Middle East and North Africa to Europe and South Asia, Environment, Development and Sustainability, April 2021, **(Impact Factor 3.219) (Q1 AU rank-A)** 10.1007/s10668-021-01424-x

40 **Ahmed Bilal Awan**, Muhammad Zubair, Zulfiqar Ali Memon, Nabil Ghalleb, Iskander Tlili, Comparative analysis of dish Stirling engine and photovoltaic technologies: Energy and economic perspective, Sustainable Energy Technologies and Assessments, vol 44, pages 1-10, April 2021, **(Impact Factor 5.353) (Q1 AU rank-A)** 10.1016/j.seta.2021.101028

39 Muhammad Zubair, **Ahmed Bilal Awan**, Muhammad Muqeet Rehman, Mohammad Nadeem Khan, Ghulam Abbas, Residential and commercial UPS User's contribution to load shedding and possible solutions using renewable energy, Energy Policy, vol 151, article 112194, April 2021, **(Impact Factor 6.142) (Q1-top10% AU rank-A*)** 10.1016/j.enpol.2021.112194

37 Ghulam Abbas, Muhammad Usman Asad, Jason Gu, Salem Alelyani, Valentina E. Balas, Mohammad Hussain, Umar Farooq, **Ahmed Bilal Awan**, Ali Raza, Chunqi Chang, Multivariable Unconstrained Pattern Search Method for Optimizing Digital PID Controllers Applied to Isolated Forward Converter, energies, vol 14, pages 77-1-23, 2021 **(Impact Factor 3.004) (Q1 AU rank-A)** 10.3390/en14010077

38 **Ahmed Bilal Awan**, Chandra Mouli, Muhammad Zubair, Performance enhancement of solar tower power plant: A multi-objective optimization approach, Energy Conversion and Management, vol 225, pages 1-13, December 2020 **(Impact Factor 9.709) (Q1-top10% AU rank-A*)** 10.1016/j.enconman.2020.113378

36 **Ahmed Bilal Awan,** Muhammad Nadeem Khan, Muhammad Zubair, Evangelos Bellos, Commercial parabolic trough CSP plants: Research trends and technological advancements, Solar Energy, vol 211, pages 1422-1458, November 2020 **(Impact Factor 5.742) (Q1 AU rank-A)** 10.1016/j.solener.2020.09.072

35 Waqas ur Rehman, Abdul Rauf Bhatti, **Ahmed Bilal Awan**, Intisar Ali Sajjad, Asad Ali Khan, Rui Bo, Shaikh Saaqib Haroon, Salman Amin, Iskander Tlili, Oroghene Oboreh-Snapps, The penetration of renewable and sustainable energy in Asia: A state-of-the-art review on net-metering, IEEE Access, vol 8, pages 170364 - 170388, September 2020 **(Impact Factor 3.367) (Q1 AU rank-A)** 10.1109/ACCESS.2020.3022738

34 Y. A. Sheikh, Arslan Dawood Butt, Kashif Nisar Paracha, **Ahmed Bilal Awan,** Abdul Rauf Bhatti, and Muhammad Zubair, An improved cooling system design to enhance energy efficiency of floating photovoltaic systems, Journal of Renewable and Sustainable Energy, vol 12, pages 053502-1-18, September 2020 **(Impact Factor 2.219) (Q2 AU rank-B)** 10.1063/5.0014181

33 **Ahmed Bilal Awan**, Mohammed Alghassab, Muhammad Zubair, Abdul Rauf Bhatti, Muhammad Uzair, Ghulam Abbas, Comparative Analysis of Ground-Mounted vs. Rooftop Photovoltaic Systems Optimized for Interrow Distance between Parallel Arrays, energies, vol 13, pages 3639-1-21, July 2020 **(Impact Factor 3.004) (Q1 AU rank-A)** 10.3390/en13143639

32 Touqeer Ahmed Jumani, Mohd. Wazir Mustafa, Ali S. Alghamdi, Madihah MD Rashid, Arbab Alamgir, **Ahmed Bilal Awan**, Swarm Intelligence-based Optimization Techniques for Dynamic Response and Power Quality Enhancement of AC Microgrids - A Comprehensive Review, IEEE Access, vol 8, pages 75986 – 76001, April 2020, **(Impact Factor 3.367) (Q1 AU rank-A)** 10.1109/ACCESS.2020.2989133

31 Muhammad Zubair, Sajid Ghaffar, **Ahmed Bilal Awan**, Abdul Rauf Bhatti, Assessment of Photovoltaic Capabilities in Urban Environments: A Case Study of Islamabad, Pakistan, Journal of Solar Energy Engineering, vol 146, pages 1-12, 2020, **(Impact Factor 2.384) (Q2 AU rank-B)** 10.1115/1.4046947

30 **Ahmed Bilal Awan**, Muhammad Zubair, Chandra Mouli, Design, optimization and performance comparison of solar tower and photovoltaic power plants, Energy, vol 199, pages 1-26, 2020 **(Impact Factor 7.147) (Q1-top10% AU rank-A*)** 10.1016/j.energy.2020.117450

29 Naveed Ashraf, Tahir Izhar, Ghulam Abbas, **Ahmed Bilal Awan**, Umar Farooq, Valentina E. Balas, A New Single-Phase AC Voltage Converter with Voltage Buck Characteristics for Grid Voltage Compensation, IEEE Access, vol 8, pages 48886 – 48903, 2020 **(Impact Factor 3.367) (Q1 AU rank-A)** 10.1109/ACCESS.2020.2979506

28 Muhammad Umar Afzaal, Intisar Ali Sajjad, **Ahmed Bilal Awan**, Kashif Nisar Paracha, Abdul Rauf Bhatti, Muhammad Zubair, Waqas ur Rehman, Salman Amin, Iskander Tlili, Probabilistic generation model for grid connected PV DG using Weibull probability distribution, vol 12, Sustainability, pages 2241-1-17, 12, 2020 **(Impact Factor 3.251) (Q1 AU rank-A)** 10.3390/su12062241

27 Ibrahim M. Alarifi, Mohammad Kashif Uddin, **Ahmed Bilal Awan**, Mu. Naushad, Abdulaziz R. Alharbi, Ramazan Asmatulu**,** Synthesis of PAN-nanofibers for the separation of aqueous pollutants and performance of the net-zero energy water treatment plant, Desalination and Water Treatment, vol 200, pages 90-108, 2020 **(Impact Factor 1.254) (Q3 AU rank-C)** 10.5004/dwt.2020.26064

26 Muhammad Aqeel Anwar, Ghulam Abbas, Irfan Khan, **Ahmed Bilal Awan**, Umar Farooq, Saad Saleem Khan, An Impedance Network-Based Three Level Quasi Neutral Point Clamped Inverter with High Voltage Gain, Energies, special issue *(Special Issue: Application of Power Electronics Converters in Smart Grids and Renewable Energy Systems)*, vol 13, pages 1261-1-25, 2020 **(Impact Factor 3.004) (Q1 AU rank-A)** 10.3390/en13051261

25 Naveed Ashraf, Tahir Izhar, Ghulam Abbas, **Ahmed Bilal Awan**, Ali S. Alghamdi, Ahmed G. Abo-Khalil, Khairy Sayed, Umar Farooq, Valentina E. Balas, A New Single-Phase Direct Frequency Controller Having Reduced Switching Count without Zero-Crossing Detector for Induction Heating System, Electronics, vol 9, pages 430-1-16, 2020 **(Impact Factor 2.397) (Q2 AU rank-B)** 10.3390/electronics9030430

24 Muhammad Zubair, **Ahmed Bilal Awan**, Sajid Ghuffar, Arslan Dawood Butt, Muhammad Farhan, Analysis and Selection Criteria of Lakes and Dams of Pakistan for Floating Photovoltaic Capabilities, Journal of Solar Energy Engineering, vol 142, pages 1-10, 2020 **(Impact Factor 2.384) (Q2 AU rank-B)** 10.1115/1.4045352

23 Ismail Akbar Khan, Ali S. Alghamdi, Touqeer Ahmed Jumani, Arbab Alamgir, **Ahmed Bilal Awan**, Attullah Khidrani, Salp Swarm Optimization Algorithm-Based Fractional Order PID Controller for Dynamic Response and Stability Enhancement of an Automatic Voltage Regulator System, Electronics, vol 8, pages 1472-1-17, 2019 **(Impact Factor 2.397) (Q2 AU rank-B)** 10.3390/electronics8121472

22 Muhammad Arsalan Shahid, Ghulam Abbas, Muhammad Rashid Hussain, Muhammad Usman Asad, Umar Farooq, Jason Gu, Muhammad Uzair, **Ahmed Bilal Awan**, Tanveer Yazdan, Artificial Intelligence-Based Controller for DC-DC Flyback Converter, Applied Sciences, vol 9, pages 5108-1-22, 2019 **(Impact Factor 2.679) (Q2 AU rank-B)** 10.3390/app9235108

21 Muhammad Zubair**, Ahmed Bilal Awan,** Praveen R.P, Mohammad Abdul Baseer, Solar Energy Export Prospects of the Kingdom of Saudi Arabia, Journal of Renewable and Sustainable Energy, vol 11, pages 033501-1-9, July 2019 **(Selected as Featured article in AIP) (Impact Factor 2.219) (Q2 AU rank-B)** 10.1063/1.5098016

20 **Ahmed Bilal Awan,** Optimization and techno-economic assessment of rooftop photovoltaic system, Journal of Renewable and Sustainable Energy, vol 11, pages 033501-1-15, May 2019 **(Selected as Featured article in AIP) (Impact Factor 2.219) (Q2 AU rank-B)** 10.1063/1.5080551

19 **Ahmed Bilal Awan**, Performance analysis and optimization of a hybrid renewable energy system for sustainable NEOM city in Saudi Arabia, Journal of Renewable and Sustainable Energy, vol 11, pages 025905-1-18, March 2019 **(Impact Factor 2.219) (Q2 AU rank-B)** 10.1063/1.5071449

18 Muhammad Shahzar Saddique, Abdul Rauf Bhatti, Shaikh Saaqib Haroon, Muhammad Kashif Sattar, Salman Amin, **Ahmed Bilal Awan**, Nadia Rasheed, Solution to optimal reactive power dispatch in transmission system using meta-heuristic techniques—Status and technological review, Electric Power Systems Research, pages 1-16, 178, 2020 **(Impact Factor 3.414) (Q1 AU rank-A)** 10.1016/j.epsr.2019.106031

17 Riaz Uddin, Ali S. Alghamdi, Muhammad Hammad Uddin, **Ahmed Bilal Awan**, Syed Atif Naseem, Ethernet-Based Fault Diagnosis and Control in Smart Grid: A Stochastic Analysis via Markovian Model Checking, Journal of Electrical Engineering & Technology, vol 14, pages 2289-2300, 2019 **(Impact Factor 1.069) (Q3 AU rank-C)** 10.1007/s42835-019-00287-7

16 Ahmed G. Abo-Khalil, Saeed Alyami, Ayman Alhejji, **Ahmed Bilal Awan**, Real-Time Reliability Monitoring of DC-Link Capacitors in Back-to-Back Converters. Energies, vol 12, pages 2369-1-11, *2019*. **(Impact Factor 3.004) (Q1 AU rank-A)** 10.3390/en12122369

15 Naveed Ahmed Khan, Guftaar Ahmed Sardar Sidhu, **Ahmed Bilal Awan,** Zain Ali, Anzar Mahmood, Modeling and operation optimization of RE integrated microgrids considering, energy, and environmental aspects, International Journal of Energy Research, vol 43, pages 1-19, August 2019 **(Impact Factor 5.164) (Q1 AU rank-A)** 10.1002/er.4604

14 **Ahmed Bilal Awan**, Muhammad Zubair, Praveen R.P., Abdul Rauf Bhatti, Design and comparative analysis of photovoltaic and parabolic trough based CSP plants, Solar Energy, vol 183, pages 551–565, 2019 **(Impact Factor 5.742) (Q1 AU rank-A)** 10.1016/j.solener.2019.03.037

13 Abdul Rauf Bhatti, Zainal Salam, Beenish Sultana, Nadia Rasheed, **Ahmed Bilal Awan**, Umbrin Sultana, Muhammad Younas, Optimized sizing of photovoltaic-grid-connected electric vehicle charging system using particle swarm optimization, International Journal of Energy Research, vol 43, pages 500-522, January 2019 **(Impact Factor 5.164) (Q1 AU rank-A)** 10.1002/er.4287

12 **Ahmed Bilal Awan**, Muhammad Zubair, Abdul Rauf Bhatti, Ahmed G. Abukhalil, Performance analysis of various hybrid renewable energy systems using battery, hydrogen, pumped hydro-based storage units, International Journal of Energy Research, vol 43, pages 6296-6321, Special Issue**,** December 2018 **(Impact Factor 5.164) (Q1 AU rank-A)** 10.1002/er.4343

11 Muhammad Zubair, **Ahmed Bilal Awan**, Abdullah Al-Ahmadi, Ahmed G. Abo-Khalil, NPC based Design Optimization for a Net Zero Office Building in Hot Climates with PV Panels as Shading Device, Energies, vol 11, pages 1391-1-21, 11, May 2018. **(Impact Factor 3.004) (Q1 AU rank-A)** 10.3390/en11061391

10 Muhammad Zubair, **Ahmed Bilal Awan**, Praveen R.P, Analysis of PV Arrays Efficiency for Reduction of Building Cooling Load in Hot Climates, Building Services Engineering Research and Technology, vol 39, pages 1-16, 2018, (**Impact Factor 1.966**) **(Q2 AU rank-B)** 10.1177/0143624418780633

9 **Ahmed Bilal Awan**, Mohammad Zubair, Praveen R.P, Ahmed G. Abu-Khalil, Solar Energy Resource Analysis and Evaluation of Photovoltaic System Performance in Various Regions of Saudi Arabia, Sustainability, vol 10, pages 1129-1-27, April 2018 **(Impact Factor 3.251) (Q1 AU rank-A)** 10.3390/su10041129

8 Praveen R.P, **Ahmed Bilal Awan**, Muhammad Zubair, Design, Performance Analysis and Optimization of a Parabolic Trough based Concentrated Solar Power Plant for Feasible locations in the Middle East Region, Energies, vol 11, pages 741-1-18, March 2018 **(Impact Factor 3.004) (Q1 AU rank-A)** 10.3390/en11040741

7 Ahmed G. Abu-Khalil, **Ahmed Bilal Awan**, Abdel-Rahman Al-Qawasmi, Comparative Study of Passive and Active Islanding Detection Methods for PV Grid-Connected Systems, Sustainability, vol 10, pages 1798-1-15, May 2018 **(Impact Factor 3.251) (Q1 AU rank-A)** 10.3390/su10061798

6 Amna Malik, Zain Ali, **Ahmed Bilal Awan**, Ahmed G. Abu-Khalil, Guftaar ahmad Sardar Sidhu Achieving Cost Minimization and Fairness in Multi-Supplier Smart Grid Environment, Energies, vol 11, pages 1367-1-17, 2018 **(Impact Factor 3.004) (Q1 AU rank-A)** 10.3390/en11061367

5 **Ahmed Bilal Awan**, Renewable Energy: A Solution to Hazardous Emission, Journal of Energy and Natural Resources, vol 5, pages 6-12, 2016 10.11648/j.jenr.s.2016050101.12

4 **Ahmed Bilal Awan**, Feasibility of Technical Potential and Calculation of Payback Period of Roof-Top Solar PV Syatems in the City of Majmaah, Province of Riyadh, K.S.A, Journal of Energy and Natural Resources, vol 5, pages 12-18, 2016 10.11648/j.jenr.s.2016050101.13

3 Naveed Ahmed Khan, **Ahmed Bilal Awan**, Anzar Mahmood, Sohail Razzaq, Adnan Zafar, Guftaar Ahmed Sardar Sidhu, Combined emission economic dispatch of power system including solar photo voltaic generation, Energy Conversion and Management, vol 92, pages 82-91, March 2015 **(Impact Factor 9.709) (Q1-top10% AU rank-A*)** 10.1016/j.enconman.2014.12.029

2 **Ahmed Bilal Awan**, Zeeshan Ali Khan, Recent progress in renewable energy – Remedy of energy crises in Pakistan, Renewable and Sustainable Energy Reviews, vol 33, pages 236-253, May 2014 **(Impact Factor 14.982) (Q1-top 5% AU rank-A*)** 10.1016/j.rser.2014.01.089

1 **Ahmed-Bilal Awan**, P. Liutanakul, Serge pierfederici, Babak Nahid-Mobarakeh, Farid Meibody-tabar, Linear Stabilisation of DC-Bus supplying a Constant Power Load, IEEE Trans. Power Electronics, vol 25, pages 475 – 488, Feb. 2010 **(Impact Factor 6.153) (Q1-top 5% AU rank-A*)** 10.1109/TPEL.2009.2025274

Conference Publications

- **Ahmed-Bilal AWAN**, "Rooftop vs. ground mounted PV system", Oral presentation at 7th symposium on Engineering and applied sciences, Majmaah Univversity, Kingdom of Saudi Arabia, April 10 2019
- **Ahmed Bilal Awan,** Comparative Analysis of 100 MW Concentrated Solar Power Plant and Photovoltaic Plant, AIP *5th International Conference on Energy, Environment and Sustainable Development 2018 (EESD2018)*, November 14-16, 2018, Jamshoro, Pakistan.
- **Ahmed Bilal Awan,** Serge Pierfederici, Babak Nahid-Mobarakeh, Farid Meibody-Tabar, "Energetic impedances: Application to large signal stability analysis of DC power systems", *IEEE Transportation Electrification Conference*, June 18-20, 2012, pp. 1-6, Dearborn, USA.
- **Ahmed Bilal Awan**, Babak Nahid-Mobarakeh, Serge Pierfederici, Farid Meibody-Tabar, "Nonlinear Stabilization of a DC-Bus Supplying a constant Power Load", *IEEE Industry Application Society (IAS)*, October 4-8, 2009, Houston, Texas, USA.
- **Ahmed Bilal Awan**, Serge Pierfederici, Babak Nahid-Mobarakeh, Farid Meibody-Tabar, "Active Stabilization of a Poorly Damped Filter Supplying a Constant Power Load", *IEEE Energy Conversion Congress and Exposition (ECCE)*, September 20-24, 2009, San Jose, California, USA
- P. Liutanakul, **Ahmed Bilal Awan,** S. Pierfederici, B. Nahid-Mobarakeh, F. Meibody-Tabar, "Stability Investigation of Inverter Motor Drive System with Input Filter – Optimisation of the DC-Link Capacitance Value",*Power Electronics Specialist Conference (PESC)*, 2008, pp. 3728 – 3734, Rhodes, Greece
- Iftikhar. M.U, **Ahmed Bilal Awan**, Sadarnac D, Lefranc P, Karimi C, "Analysis of Input Filter Interactions in Cascade Buck Converters", *IEEE International Conference on Industrial Technology*, 2008, pp. 1 – 6, Chengdu, China.

Website links

Google Scholar: https://scholar.google.com/citations?user=MqVzDeEAAAAJ&hl=en
ResearchGate: https://www.researchgate.net/profile/Ahmed_Awan