Abdul Motin Howlader, D. Eng.

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Summary

NUMBER OF PUBLICATIONS   : 94
Number of Journal Papers: 47
International Conference Papers : 37
National Conference Papers : 08
Book Chapter: 02

NUMBER OF AWARDS   : 10

NUMBER OF RESEARCH PROJECTS   : 08

SPECIALIZATION   : Machine Learning and AI, Big-data,
Data Science, Software Development
Computer Programming, Smart Grid

Education

- **Doctor of Engineering** in Electrical and Electronics Engineering
University of the Ryukyus, Japan.
Grade: **Outstanding. CGPA 4.0 out of 4.0**
Graduation date: September 12, 2013
Medium of Instruction: English

- **Master of Engineering** in Electrical and Electronics Engineering
University of the Ryukyus, Japan.
Grade: **Outstanding. CGPA 4.0 out of 4.0**
Graduation date: September 13, 2010
Medium of Instruction: English

- **Bachelor of Science** in Computer Science and Engineering
United International University, Bangladesh.
Grade: **First Class with Honors. CGPA 3.99 out of 4.0**

Merit Position in the Class: 1st
Medium of Instruction: English

Awards & Achievements

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1. President's Honorary Award, University of the Ryukyus; September 2013
Awarded by the President of University of the Ryukyus for the outstanding performance in the Doctor of Engineering Program which is considered the highest honor of the University of the Ryukyus for a graduate student.

2. Excellent Student Award, IEEE Fukuoka Section; February 2012
Awarded by the IEEE Fukuoka Section, Japan for the paper titled "Fuzzy Controller Based Output Power Leveling Enhancement for a Permanent Magnet Synchronous Generator," IEEE International Conference on Fuzzy Systems, Taiwan, pp. 43-54, June 27-30, 2011.

3. Best Paper Presentation Award, IEEJ Kyushu Branch; March 2011
Joint Conference of the IEEJ and IEICE, Okinawa, Japan. Awarded for the presentation of the paper titled "Optimal PAM Control for a PMSM Based on Fuzzy Logic System."

4. Monbukagakusho Scholarship, Government of Japan; October 2010
Asia-Pacific Engineering Design Doctoral Program, The International Priority Graduate Program (PGP) from the Ministry of Education, Culture, Sports, Science and Technology, Japan.

5. President's Honorary Award, University of the Ryukyus; September 2010
Awarded by the President of University of the Ryukyus for the outstanding performance in the Master of Engineering Program.

6. Young Engineer Poster Presentation Award, IEEE ICEMS 2009, Japan; November 2009
Awarded by the IEEE International Conference on Electrical Machines and Systems (ICEMS) for outstanding poster paper presentation in Tokyo, Japan, 2009.

7. Monbukagakusho Scholarship, Government of Japan; October 2008
Asia-Pacific Engineering Design Master Program, The International Priority Graduate Program (PGP) from the Ministry of Education, Culture, Sports, Science and Technology, Japan.

8. Microsoft Certified Technology Specialist, Microsoft Corporation, USA; July 2008
Awarded by the Microsoft Corporation, USA for the successfully completed the .NET Framework 2.0 Web Applications

9. Summa Cum Laude, United International University; September 2005
Awarded by the United International University for the outstanding performance in the Undergraduate Program.

10. ACM International Collegiate Programming Contest Award, the Dhaka site; November 2004
Awarded by the Association for Computing Machinery (ACM) International Collegiate Programming Contest Award for the outstanding performance and participation in the Programming Contest.

Research, Teaching, and Job Experiences

Data Scientist	California Air Resources Board, Riverside, March 2020-Till now
Lecturer (Part-time)	California State University, San Bernardino, January 2023-Till now
Lecturer (Part-time)	Bangladesh University of Business and Technology, Dhaka, Bangladesh, April 2021-December 2022
Research Scientist	University of California, Riverside, October 2018-February 2020
Postdoctoral Fellow	University of Hawaii, Manoa, October 2015-September 2018
Postdoctoral Research Fellow, Japan Society for Promotion of Science (JSPS)	University of the Ryukyus, Japan, October 2013-September 2015
Teaching Assistant	University of the Ryukyus, Japan, October 2010-September 2013
Senior Software Engineer (Team Leader)	Invogue Software Limited, Bangladesh, October 2006 - September 2008
Software Engineer	Invogue Software Limited, Bangladesh, October 2005 - September 2006

Research Projects

1. Project Title: New heavy duty in-use test (nHDIUT) certification system
Status : On going
List of Specific Assignments: 1. Design a database; 2. Process and check the business rules for the raw XML, CSV, and pdf files that receive from the vehicle manufacturers; 3. Plot the different data; 4. Generate different reports; 5. Designed and developed an internal and external web applications.
Outcome/result: Developing an oracle database for the nHDIUT application, and windows application, and asp.net web application were developed using visual studio.net C# programming language to process the data.

2. Project Title: Predicting particulate matter (PM), CO_2, CO, HC, and NO_X for heavy-duty vehicles using Deep Learning Algorithms (March 2022- till now)
Status: On going
List of specific assignment: 1. Developing the PM, CO_2, CO, HC, and NO_X emission predicting model for vehicles using Dee Learning Algorithms.
Outcome/Results: The deep Learning Algorithms (LSTM, RNN, and GRU) predict the PM, CO_2, CO, HC, and NO_X emission for various heavy-duty vehicles.

3. Project Title: Heavy-duty in-use test (HDIUT) certification system (March 2020-March 2022)
List of specific assignments: 1. Design a database; 2. Process and check the business rules for the raw XML and CSV files that receive from the vehicle manufacturers; 3. Plot the different data; 4. Generate various reports; 5. Designed and developed an internal web application.
Outcome/result: Developed an oracle database for the HDIUT application, and windows application and asp.net web application were developed using visual studio.net C# programming language to process the data.

4. Project Title: Predicting Light-Duty Vehicle Emission Using Integrated Deep Neural Networks (July 2020- August 2021)
List of specific assignment: 1. Designed and developed an accurate emission predicting model for the light-duty vehicles using deep neural network methods.
Outcome/Results: The integrated deep neural network model can predict the emissions like HC, CO, NO_X, and CO_2 for the light duty vehicle.

5. Project Title: After Market Executive Order (AMEO) Generation System (October 2021-June 2022)
List of specific assignment: 1. Design a database; 2. Process and check the business rules for the raw XML and pdf files that receive from the vehicle manufacturers; 3. Generate executive order.
Outcome/result: Developed an oracle database for the AMEO application, and asp.net web application were developed using visual studio.net C# programming language to process the data.

6. Project Title: Integration of a Distributed Energy Resource (DER) Management System in Riverside (October 2018-February 2020)
List of specific assignment: 1. Advanced algorithms development for the DER management system; 2. Quarterly progress report submission to the project funding organization, i.e., department of energy (DoE); 3. Pilot implementation of the project.
Outcome/result: The algorithms were developed and implemented as part of this project include: 1) Topology and Phase Identification (TPI)using correlation analysis, and resource forecasting (active and reactive power) using deep neural network.

8. Project Title: Optimal Reactive Power from Smart PV Inverters Using Machine Learning Algorithms (April 2018-September 2018)
List of specific assignment: 1. Developed a load forecasting model; 2. Optimal reactive power flow using optimization algorithms; 3. Submit the research report.
Outcome/Result: Designed and developed a highly accurate load forecasting model and optimal reactive power flow method using deep neural network algorithms.

Professional and Industrial Involvements

- **Senior Member of Institute of Electrical and Electronic Engineers (SMIEEE), USA**

- **Conference Technical Committee:** 2018 Asia Conference on Energy and Environment Engineering (ACEEE 2018)

- **Session Chair:** IEEE Conference on PEDS-2013, 2017.

- **Reviewer:**

  - IEEE Transactions on Industrial Electronics
  - IEEE Transactions on Sustainable Energy
  - IEEE Transactions on Energy Conversion
  - IEEE Transactions on Power Systems
  - IEEE Transactions on Industry Applications
  - IEEE Transactions on Power Electronics
  - IEEE Systems Journal
  - Renewable and Sustainable Energy Review (Elsevier)
  - Energy (Elsevier)
  - Applied Energy (Elsevier)
  - Energy Conversion and Management (Elsevier)
  - Electric Power Components and Systems (Taylor and Francis)

- International Journal of Emerging Electric Power and Systems (De Gruyter)
- IEEE Conference on PEDS
- IEEE Conference on PECON

- **Project Management: Invogue Software Limited, Bangladesh**

  - Gentleman Cadet (GC) Assessment System for Bangladesh Military Academy
  In this project, I developed a Cadet assessment system using standard nine (stanine) method for Bangladesh Military academy. Final result of each Cadet was evaluated by using two years of all courses and training scores.
  Development tools: Visual Studio.NET, C#, SQL Server Database, Crystal Reports

  - Business Solution for Bangladesh Sangbad Sangstha (BSS)
  In this project, I developed news management system, human resource management, and annual confidential report (ACR) for the BSS.
  Development tools: Visual Studio.NET, C#, MySQL Database, Crystal Reports

  - Business Solution for Dhaka Club Limited In this project, I developed human resource management, club member management, point of sale management, guest house management, account management, and payroll management systems.
  Development tools: Visual Studio.NET, C++, SQL Server Database, Crystal Reports

  - Business Solution for Bhatiary Golf and Country Club Limited In this project, I developed member management, human resource management, payroll system, caddy and ball-boy management, restaurant management, and inventory management system
  Development tools: JAVA, Oracle Database, Crystal Reports

Software and Programming Skills

- **Programming Languages**
  C, C++, C#, Python, JAVA, Visual C++, Assembly, VB.NET.

- **Script Languages**
  HTML, XHTML, XML, PHP, UNIX shell script, JAVA Script, MATLAB Script.

- **Databases**
  SQL Server, MySQL, Microsoft Access, Oracle.

- **Reporting Tools**
  Crystal Report, DevExpress Reporting tool

- **Application Tools and Technologies**
  LATEX, TGIF, Microsoft Office (Word, Excel, Power point), Open Office Suite, TOAD, PL/SQL Developer, Macromedia Dreamweaver, ER Studio, System Architecture, DevExpress, Bootstrap Studio, Block-chain, Keras, Pretty Tensor, PyTorch, MPLAB, Github, VSS, CVS.

- **Operating System**
Windows, Linux, Ubuntu.

- **Smart Grid Tools]**
MATLAB/Simulink, OpenDSS, CYME, DEW, PSCAD, PSS/E, and PLECS.

Language Skills

- **English**   Near Native Level
- **Bengali**   Native Level (mother tongue)

Publications

- *Journal Papers*

  1. **Abdul Motin Howlader**, Dilip Patel, and Robert Gammariello, "A Data-Driven Approach for Instantaneous Vehicle Emission Forecasting Using Integrated Deep Neural Network," *Transportation Research Part D: Transport and Environment*, vol. 116, March 2023.

  2. **Abdul Motin Howlader**, Staci Sadoyama, Leon R. Roose, and Yan Chen, "Active Power Control to Mitigate Voltage and Frequency Deviations for the Smart Grid Using Smart PV Inverters," *Applied Energy*, vol. 258, Jan 2020.

  3. Lei Liu, Tomonobu Senjyu, Takeyoshi Kato, **Abdul Motin Howlader**, Paras Mandal, and Mohammed Elsayed Lotfy, "Load frequency control for renewable energy sources for isolated power system by introducing large scale PV and storage battery," *Energy Reports*, vol. 6, no. 9, pp. 1597-1603, 2020.

  4. Mark Kipngetich Kiptoo, Mohammed Elsayed Lotfy, Oludamilare Bode Adewuyi, Abdul Conteh, **Abdul Motin Howlader**, and Tomonobu Senjyu, "Integrated approach for optimal techno-economic planning for high renewable energy-based isolated microgrid considering cost of energy storage and demand response strategies," *Energy Conversion and Management*, vol. 215, 2020.

  5. Susowake Yuta, Hasan Masrur, Tetsuya Yabiku, Tomonobu Senjyu, **Abdul Motin Howlader**, Mamdouh Abdel-Akher, and Ashraf M. Hemeida, "A Multi-Objective Optimization Approach towards a Proposed Smart Apartment with Demand-Response in Japan" *Energies*, vol. 13, no. 1, 2020.

  6. Charles Komboigo, Naomitsu Urasaki, Tomonobu Senju, Mohammed Elsayed Lotfy, **Abdul Motin Howlader**, and Manoj Datta, "Load Frequency Control Design for Two Area Interconnected Power System with DFIG Based Wind Turbine" *International Journal of Emerging Electric Power Systems*, vol. 20, no. 6, 2019.

7. Mikaeel Ahmadi, Mohammed E. Lotfy, Ryuto Shigenobu, **Abdul Motin Howlader**, and Tomonobu Senjyu, "Optimal Sizing of Multiple Renewable Energy Resources and PV Inverter Reactive Power Control Encompassing Environmental, Technical, and Economic Issues," *IEEE Systems Journal*, vol. 13, no. 3, pp. 3026-3037, June 2019.

8. Bode Adewuyi, Ryuto Shigenobu, Kazuki Ooya, Tomonobu Senjyu, and **Abdul Motin Howlader**, "Static voltage stability improvement with battery energy storage considering optimal control of active and reactive power injection," *Electric Power Systems Research,* vol. 172, pp. 303-312, July 2019.

9. Mikaeel Ahmadi, Mohammed E. Lotfy, **Abdul Motin Howlader**, Atsushi Yona, and Tomonobu Senjyu, "Centralized Multi-Objective Integration of Wind Farm and Battery Energy Storage System in Real Distribution Network Considering Environmental, Technical and Economic Perspective,"*IET Generation, Transmission and Distribution*, vol. 13, no. 22, pp. 5207-5217, 2019.

10. Yaqobi, Mohammad A., Hidehito Matayoshi, Mir S.S. Danish, Mohammed E. Lotfy, **Abdul Motin Howlader**, and Senjyu Tomonobu, "Low-Voltage Solid-State DC Breaker for Fault Protection Applications in Isolated DC Microgrid Cluster," *Applied Sciences*, vol. 9, no. 4, 2019.

11. **Abdul Motin Howlader**, Staci Sadoyama, Leon R. Roose, and Saeed Sepasi, "Volt-Var Control for a Smart Grid System Using Smart PV-Inverter: An Experimental Analysis," *Renewable Energy*, vol. 127, pp. 145-157, November 2018.

12. Masahiro Furukakoi, Oludamilare Bode Adewuyi, Hidehito Matayoshi, **Abdul Motin Howlader**, and Tomonobu Senjyu, "Multi Objective Unit Commitment with Voltage Stability and PV Uncertainty," *Applied Energy*, vol. 228, pp. 618-623, October 2018.

13. Mir Sayed Shah Danish, Tomonobu Senjyu, Abdul Matin Ibrahimi, Mikaeel Ahmadi, **Abdul Motin Howlader**, "A Managed Framework for Energy-Efficient Building," *Journal of Building Engineering*, vol. 21, pp. 120-128, October 2018.

14. Mohammad Aman Yaqobi, Hidehito Matayoshi, Mir Sayed Shah Danish, Naomitsu Urasaki, **Abdul Motin Howlader**, Tomonobu Senjyu, "Control and Energy Management Strategy of Standalone DC Microgrid Cluster using PV and Battery Storage for Rural Application," *International Journal of Power and Energy Research*, vol. 2, no. 4, October 2018.

15. Masahiro Furukakoi, Oludamilare Bode Adewuyi, Mir Sayed Shah Danish, **Abdul Motin Howlader**, Tomonobu Senjyu, Toshihisa Funabashi, "Critical Boundary Index (CBI) based on active and reactive power deviations," *International Journal of Electrical Power & Energy Systems*, vol. 100, pp. 50-57, September 2018.

16. Ryuto Shigenobu, Mitsunaga Kinjo, Paras Mandal, **Abdul Motin Howlader**, and Tomonobu Senjyu, "Optimal Operation Method for Distribution Systems Considering Distribution Generators Imparted with Reactive Power Incentive," *Applied Science*, vol. 8, pp. 1411-1434, August 2018.

17. Hidehito Matayoshi, **Abdul Motin Howlader**, Manoj Datta, and Tomonobu Senjyu, "Control Strategy of PMSG Based Wind Energy Conversion System Under Strong Wind Conditions," *Energy for Sustainable Development*, vol. 45, pp. 211-218, August 2018.

18. **Abdul Motin Howlader**, Hidehito Matayoshi, Saeed Sepasi, and Tomonobu Senjyu, "Design and Line Fault Protection Scheme of a DC Microgrid Based on Battery Energy Storage System," *Energies*, vol. 11, no. 7, pp. 1823-1844, July 2018.

19. Agada Ihuoma Nkechi, **Abdul Motin Howlader**, and Atsushi Yona, "Integration of Photovoltaic Energy to the Grid, Using the Virtual Synchronous Generator Control Technique," *Journal of Energy and Power Engineering*, vol. 12, pp. 329-339, 2018.

20. Masahiro Furukakoi, Mir Sayed Shah Danish, **Abdul Motin Howlader**, and Tomonobu Senjyu, "Voltage Stability Improvement of Transmission Systems Using a Novel Shunt Capacitor Control," *International Journal of Emerging Electric Power Systems*, vol. 9, no. 1, pp. 1-12, February 2018.

21. Ryota Kinjo, Hidehito Matayoshi, Gul Ahmad Ludin, **Abdul Motin Howlader**, Naomitsu Urasaki, Tomonobu Senjyu, "Multi-Terminal High Voltage Direct Current Transmission System with DC Resonant Semiconductor Breakers," *International Journal of Emerging Electric Power Systems*, vol. 09, no. 3, February 2018.

22. Oludamilare Bode Adewuyi, Mir Sayed Shah Danish, **Abdul Motin Howlader**, Tomonobu Senjyu, Mohammed E. Lotfy, Network Structure-Based Critical Bus Identification for Power System Considering Line Voltage Stability Margin, Journal of Power and Energy Engineering, vol. 6, pp. 97-111, January 2018.

23. Shota Tobaru, Hidehito Matayoshi, Foday Conteh, **Abdul Motin Howlader**, and Tomonobu Senjyu, "Optimal Operation Strategy Using Chance-Constrained Programming for Cooperative Multi-Area Small Power Systems in Remote Islands," *Journal of Renewable and Sustainable Energy*, vol. 9, no. 5, October 2017.

24. Takahiro Uehara, Dang Ngoc Son, Hidehito Matayoshi, Mohamed Lotfy, Tomonobu Senjyu, Manoj Datta, and **Abdul Motin Howlader**, "Frequency Control Method Using Automated Demand Response for Isolated Power System with Renewable Energy Sources," *International Journal of Emerging Electric Power Systems*, vol. 18, no. 5, September 2017.

25. Shota Tobaru, Ryuto Shigenobu, Foday Conteh, Naomitsu Urasaki, **Abdul Motin Howlader**, Tomonobu Senjyu, and Toshihisa Funabashi, "Optimal Operation Method Coping with Uncertainty in Multi-Area Small Power Systems," *AIMS Energy*, vol. 5, no. 4, pp. 718-734, July 2017.

26. Saeed Sepasi, Ehsan Reihani, **Abdul Motin Howlader**, Leon R. Roose and Marc Matsuura, "Very Short Term Load Forecasting of a Distribution System with High PV Penetration Renewable Energy," *Renewable Energy*, vol. 106, pp. 142-148, June 2017.

27. Yasuaki Miyazato, Shouta Toubaru, Kosuke Uchida, Cirio Celestino Muarapaz, **Abdul Motin Howlader**, and Tomonobu Senjyu, " Multi-Objective Optimization for Equipment Capacity in Off-grid Smart House," *Sustainability*, vol. 9, no. 1, pp. 117-119, January 2017.

28. Yasuaki Miyazato, Shouta Toubaru, Kosuke Uchida, Cirio Celestino Muarapaz, **Abdul Motin Howlader**, and Tomonobu Senjyu, "Multi-Objective Optimization for Smart House Applied Real Time Pricing Systems," *Sustainability*, vol. 8, no. 12, pp. 1273-1295, December 2016.

29. **Abdul Motin Howlader** and Tomonobu Senjyu, "A Comprehensive Review of Low Voltage Ride Through Strategies for the Wind Energy Conversion," *Renewable and Sustainable Energy Reviews*, vol. 56, pp. 643-653, April 2016.

30. **Abdul Motin Howlader**, Hidehito Matayoshi, and Tomonobu Senjyu "A Robust H_∞ Controller Based Gain-Scheduled Approach for the Power Smoothing of Wind Turbine Generator with Battery Energy Storage System," *Electric Power Components & Systems*, vol. 43, no.19, pp.2156-2167, September 2015.

31. **Abdul Motin Howlader**, Tomonobu Senjyu, and Ahmed Yousuf Saber, "An Integrated Power Smoothing Control for a Grid-Interactive PMSG-Based Wind Farm Considering Wake Effects," *IEEE System Journal*, vol. 9, no. 3, pp. 954 - 965, December 2014.

32. **Abdul Motin Howlader**, Naomitsu Urasaki, and Ahmed Yousuf Saber, "Control Strategies for Wind Farms based Smart Grid System," *IEEE Transactions on Industry Applications*, vol. 50, no. 5, pp. 3591-3601, February 2014.

33. **Abdul Motin Howlader**, Naomitsu Urasaki, Alok Pratap, Tomonobu Senjyu, and Ahmed Yousuf Saber, "A Fuzzy Control Strategy for Power Smoothing and Grid Dynamic Response Enrichment of a Grid-connected Wind Energy Conversion System," *Wind Energy*, vol. 17, no. 9, pp. 1347-1363, September 2014.

34. **Abdul Motin Howlader**, Yuya Izumi, Akie Uehara, Naomitsu Urasaki, Atsushi Yona, Tomonobu Senjyu, and Ahmed Yousuf Saber, "A Robust H_∞ Controller Based Frequency Control Approach Using the Wind-Battery Coordination Strategy in a Small Power System," *International Journal of Electrical Power and Energy Systems*, vol. 98, pp. 190-198, June 2014.

35. **Abdul Motin Howlader**, Naomitsu Urasaki, Atsushi Yona, Tomonobu Senjyu, and Ahmed Yousuf Saber, "A Review of Power Smoothing Methods for Wind Energy Conversion Systems," *Renewable and Sustainable Energy Reviews*, vol. 26, pp. 135-146, October 2013.

36. **Abdul Motin Howlader**, Naomitsu Urasaki, Tomonobu Senjyu, and Ahmed Yousuf Saber, "Design and Implement a Digital H_∞ Robust Controller for a MW-class PMSG-based Grid-Interactive Wind Energy Conversion System," *Energies*, vol. 6, no. 4, pp. 2084-2109, April 2013.

37. **Abdul Motin Howlader**, Yuya Izumi, Akie Uehara, Naomitsu Urasaki, Atsushi Yona, Tomonobu Senjyu, and Ahmed Yousuf Saber, "A Minimal Order Observer Based Frequency Control Strategy for an Integrated Wind-Battery-Diesel Power System," *Energy*, vol. 46, no. 1, pp. 168-178, October 2012.

38. Alok Pratap, **Abdul Motin Howlader**, Tomonobu Senjyu, Atsushi Yona, Naomitsu Urasaki, and Toshihisa Funabashi, "Different Strategies for Controlling Output Power Smoothing of a PMSG-Based Wind Energy Conversion Systems," *International Journal of Emerging Electric Power Systems*, vol. 13, no. 4, Article 3, pp. 1-30, September 2012.

39. **Abdul Motin Howlader**, Naomitsu Urasaki, Atsushi Yona, Tomonobu Senjyu, and Ahmed Yousuf Saber, "Fuzzy Controller Based Pulse Amplitude Modulation Control for a Permanent Magnet Synchronous Motor," *International Journal of Emerging Electric Power Systems*, vol. 13, no. 1, Article 5, pp. 1-18, June 2012.

40. **Abdul Motin Howlader**, Naomitsu Urasaki, Tomonobu Senjyu, Atsushi Yona, and Ahmed Yousuf Saber, "To Reduce Power Fluctuation of a Pitch-Regulated MW-Class PMSG Based WTG System by Controlling Kinetic Energy," *Journal of International Conference on Electrical Machines and Systems*, vol. 1, no. 2, pp. 116-124, June 2012.

41. Naomitsu Urasaki, **Abdul Motin Howlader**, Tomonobu Senjyu, and Ahmed Yousuf Saber, "High Efficiency Drive for Micro-Turbine Generator Based on Current Phase and Revolving Speed Optimizations," *International Journal of Emerging Electric Power Systems*, vol. 12, no. 5, Article 3, pp. 1-14, August 2011.

42. Naomitsu Urasaki, **Abdul Motin Howlader**, Atsushi Yona, Tomonobu Senjyu, and Ahmed Yousuf Saber, " H_∞ Observer Based Sensor-less Control Strategy for Interior Permanent Magnet Synchronous Motor," *International Journal of Emerging Electric Power Systems*, vol. 12, no. 3, Article 6, pp. 1-18, June 2011.

43. **Abdul Motin Howlader**, Naomitsu Urasaki, Tomonobu Senjyu, Atsushi Yona, and Ahmed Yousuf Saber, "Optimal PAM Control for a Buck Boost DC-DC Converter with a Wide-Speed-Range of Operation for a PMSM," *Journal of Power Electronics*, vol. 10, no. 5, pp. 477-484, September 2010.

44. **Abdul Motin Howlader**, Naomitsu Urasaki, Kousuke Uchida, Atsushi Yona, Tomonobu Senjyu, Chul-Hwan Kim, and Ahmed Yousuf Saber, "Parameter Identification of Wind Turbine Generation system for Maximum Power Point Tracking Control," *Electric Power Components & Systems*, vol. 38, no. 5, pp. 603-614, March 2010.

45. **Abdul Motin Howlader**, Naomitsu Urasaki, Atsushi Yona, Tomonobu Senjyu, Chul-Hwan Kim, and Ahmed Yousuf Saber, "Output Power Leveling of Wind Generation System Using Inertia of Wind Turbine," *International Journal of Emerging Electric Power Systems*, vol. 10, no. 4, Article 5, pp. 1-13, August 2009.

46. Naomitsu Urasaki, Yohei Noguchi, **Abdul Motin Howlader**, Yuri Yonaha, Atsushi Yona, and Tomonobu Senjyu, "Wide-Speed-Range Operation of Interior Permanent

Magnet Synchronous Motor with Parameter Identification," *Electric Power Components & Systems*, vol. 37, no. 8, pp. 847-865, August 2009.

47. Tomonobu Senjyu, J. Miyagi, **Abdul Motin Howlader**, Atsushi Yona, Naomitsu Urasaki, and H. Sekine, "Bi-directional Zero-current Soft-switching Technique Applied for Bi-directional DC-DC Converter in Energy Capacitor Systems," *Electric Power Components & Systems*, vol. 36, no. 11, pp. 1183-1199, November 2008.

● *Peer-reviewed International Conference Papers*

1. **Abdul Motin Howlader**, Anwar Hossain, Ahmed Yousuf Saber, and Tomonobu Senjyu, "Optimal Reactive Power Flow From the Smart PV Inverters," International Conference on Science and Contemporary Technologies, BUBT, Bangladesh, August 2021 (Presented).

2. L. Liu, T. Senjyu, T. Kato, P. Mandal, A. M. Hemeida, and **Abdul M. Howlader**, "Renewable Energy Power System Frequency Control by using PID controller and Genetic Algorithm," *12th IEEE PES Asia-Pacific Power and Energy Engineering Conference (APPEEC)*, pp. 1-5, 2020.

3. K. Takahashi, H. Matayoshi, T. Senjyu, H. Takahashi, and **Abdul M. Howlader**, "Online Parameter identification of PMSG Wind turbine for Output Power control," *TENCON 2019 - 2019 IEEE Region 10 Conference (TENCON)*, pp. 604-607, 2019.

4. Y. Susowake, H. Yongyi, T. Senjyu, **Abdul M. Howlader**, and P. Mandal, "Optimum Operation Plan for Multiple Existing EV Charging Stations," *2018 IEEE PES Asia-Pacific Power and Energy Engineering Conference (APPEEC)*, pp. 611-615, 2018.

5. R. Ota, R. Kinjo, H. Matayoshi, T. Senjyu, and **Abdul M. Howlader**, "DC fault detection method using current differential deviation in MTDC grid," *2018 IEEE PES Asia-Pacific Power and Energy Engineering Conference (APPEEC)*, pp. 139-142, 2018.

6. Y. Susowake, A. M. Ibrahimi, M. S. S. Danish, T. Senjyu, **Abdul M. Howlader**, and P. Mandal, "Multi-Objective Design of Power System Introducing Seawater Electrolysis Plant for Remote Island," *2018 IEEE Innovative Smart Grid Technologies - Asia (ISGT Asia)*, pp. 909-911, 2018.

7. **Abdul Motin Howlader**, Staci Sadoyama, Leon R. Roose, and Saeed Sepasi, "Experimental Analysis of Active Power Control of the PV System Using Smart PV Inverter for the Smart Grid System," 12th IEEE International Conference on Power Electronics and Drive Systems (IEEE PEDS 2017), pp. 497-501, Honolulu, USA, December 2017.

8. **Abdul Motin Howlader**, Staci Sadoyama, Leon R. Roose, and Saeed Sepasi, "Distributed Voltage Control Method Using Volt-Var Control Curve of Photovoltaic inverter for a Smart Power Grid System," 12th IEEE International Conference on Power Electronics and Drive Systems (IEEE PEDS 2017), pp. 630-634, Honolulu, USA, December 2017.

9. Ryota Kinjo, Ryoya Ohta, Hidehito Matayoshi, **Abdul Motin Howlader**, and Tomonobu Senjyu, "Resonant DC Circuit Breaker in MMC-HVDC Transmission System," 12th IEEE International Conference on Power Electronics and Drive Systems (IEEE PEDS 2017), pp. 71-74, Honolulu, USA, December 2017.

10. Shota Tobaru, Foday Conteh, **Abdul Motin Howlader**, Tomonobu Senjyu, and Toshihisa Funabashi, "Optimal Sizing of PV-Wind-Battery Power System Considering Demand Response Programs," 12th IEEE International Conference on Power Electronics and Drive Systems (IEEE PEDS 2017), pp. 162-165, Honolulu, USA, December 2017.

11. Ryoya Ohta, Hidehito Matayoshi, **Abdul Motin Howlader**, Tomonobu Senjyu, "LLC Resonant Type Boost Converter for HVDC Interconnection of PV Generation Facility," 12th IEEE International Conference on Power Electronics and Drive Systems (IEEE PEDS 2017), pp. 156-161, Honolulu, USA, December 2017.

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