



CURRICULUM VITAE

of

MD. RABIUL ISLAM

(Electrical and Electronic Engineer)

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1. **Name** : Md. Rabiul Islam
2. **Present / Mailing Address** : Room 10, Building 01, Level 18,
Center for Electrical Machines and Power Electronics
University of Technology Sydney
15 Broadway, Ultimo, NSW 2007, Australia
3. **Educational Qualifications:**

Certificate /Degree	Year of Passing	Name and Address of Institutions	Division /Class	Marks (%) /CGPA
PhD	tentatively Sep. 2013	University of Technology Sydney Sydney, Australia	Area: Power Converters, Renewable Energy Technologies, Grid Interconnection etc.	
M. Sc. Eng. EEE	2009	Rajshahi University of Engineering and Technology (RUET), Rajshahi-6204, Bangladesh.	First Class	Above 80%
B.Sc. Eng. EEE	2003	Rajshahi University of Engineering and Technology (RUET), Rajshahi-6204, Bangladesh.	First Class First (1 st Position)	3.75 79%
H.S.C Science	1997	Saidpur Govt. Technical College, Saidpur, Rajshahi Board.	First Division	
S.S.C	1995	Kaunia M. H. High School	First Division	

4. Teaching Experiences:

Name and Address of Organization	Status of Organization	Position	Duration of Employment	Period
University of Technology Sydney UTS , Sydney, Australia	University	Tutor	Circuit Analysis and Power System	March 2010 -Till today
Rajshahi University of Engineering & Technology, RUET , Rajshahi.	University	Assistant Professor	June 22, 2008 to Mar 07, 2010	Around 1 and half Year
Rajshahi University of Engineering & Technology, RUET , Rajshahi.	University	Lecturer	July 13, 2005 to June 21, 2008	2 Years, 11 Months and 18 Days
American International University-Bangladesh, AIUB , Dhaka.	University	Lecturer	May 01, 2005 to July 12, 2005	2 Months and 12 Days
University of Development Alternative, UODA , Dhaka.	University	Lecturer	Sept 01, 2004 to Apri 30, 2005	8 Months
Total Period			More than 5 Years	

5. Subjects Taught In Undergraduate Level

Fields Introduction to Semiconductor Devices, Basic Electronic Circuits, Basic Electrical Engineering, Circuit Analysis, Industrial Electronics, Power Electronics, Power System Engineering, Digital Electronics, Electrical Machines, Numerical Methods for Engineering using Matlab, Renewable Energy Technologies.

6. Research Interest

Fields Power Electronics - PWM Inverter, DC to DC Converter, Multilevel Converter, SPWM and SVPWM, Power Electronic Drives and Motor Control, Renewable Energy, Wind and Solar Energy Conversion, Power System Stability and Smart Grid, FPGA Based Switching Controllers.

7. List of Publications:

7.1 In International Journals (Published):

- (i) **Md. Rabiul Islam**, Youguang Guo and Jianguo Zhu, “A Medium-Frequency Transformer with Multiple Secondary Windings for Medium-Voltage Converter Based Wind Turbine Generating Systems”, *Journal of Applied Physics*, vol. 113, no. 17, May 2013, [Refereed, Impact Factor 2.168].
- (ii) **Md. Rabiul Islam**, Youguang Guo and Jian Guo Zhu, “11-kV Series-Connected H-Bridge Multilevel Converter for Direct Grid Connection of Renewable Energy Systems”, *Journal of International Conference on Electrical Machines and Systems*, vol.1, no. 2, pp. 70-78, June 2012, **Korea**, ISSN 2234-6902, indexed in Compendex Database of Engineering Information (**EI Compendex**), [Refereed].
- (iii) Md. Masud Rana, **Md. Rabiul Islam** and Md. Kamal Hosain, “Parametric Investigation of Near End and Far End Crosstalks in Printed Circuit Board Lands”, *International Journal of Electrical and Computer Engineering (IJECE)*, vol. 1, no. 2, pp. 213-219, December 2011, **Malaysia**, ISSN 2088-8708, [Refereed].
- (iv) **Md. Rabiul Islam**, Youguang Guo, Jian Guo Zhu and Jinxun Jin, “Design and Fabrication of a Microcontroller Based Maximum Power Point Tracker for Renewable Energy Systems”, *Journal of Applied Superconductivity and Electromagnetics*, vol. 2, no. 1, pp. 17-23, July 2011, ISSN 1836-7151, **Australia**, [Refereed].
- (v) Omar Farrok, **Md. Rabiul Islam** and M. G. Rabbani, “Minimization of Voltage Oscillations by Shunt Connected FACTS Device Using Adjustable Gain PID Controller”, *Journal of Engineering Science*, pp. 75-83, vol. 1, no. 1, June 2010, **Bangladesh**, ISSN: 2075-4914.
- (vi) O. Farrok, M. G. Rabbani and **Md. Rabiul Islam**, “Design and Simulation of an Efficient STATCOM Controller to Improve Electric Power System Dynamics”, *International Energy Journal*, pp. 43-50, vol. 11, no. 1, March 2010, AIT, **Thailand**, ISSN 1513-718X, indexed in Compendex Database of Engineering Information (**EI: 20113314237764**), [Refereed].
- (vii) **Md. Rabiul. Islam**, M. G. Rabbani, M. D. Hossain and M. F. Rahman “Effective Solar Photovoltaic Activities in Bangladesh”, *International Energy Journal*, Vol. 10, Issue 1, March 2009, pp. 29-36, AIT, **Thailand**, ISSN 1513-718X, indexed in Compendex Database of Engineering Information (**EI: 20110813683887**), [Refereed].
- (viii) M.F. Hossain, **Md. Rabiul. Islam**, M. G. Rabbani, M. F. Rahman and T. Takahashi, “Fuzzy Based Integral Controller for an Automatic Generation Control in Multi-Area Power System”, *International Energy Journal*, Vol. 9, Issue 4, December 2008, pp. 275-280, AIT, **Thailand**, ISSN: 1513-718X, indexed in Compendex Database of Engineering Information (**EI: 20110813683895**), [Refereed].

- (ix) Omar Farrok, M. G. Rabbani and **Md. Rabiul Islam**, “A Novel Approach to Improve the Performance of PWM Inverter”, *Journal of Engineering and Applied Science*, pp. 173-183, vol. 6, 2008, ISSN: 1994-0386, **Bangladesh**.
- (x) M.F. Hossain, **Md. Rabiul Islam**, T. Takahashi and M. G. Rabbani, “Fuzzy Based Load Frequency Controller of a Single Area Power System with Considering Governor Nonlinearity”, *International Energy Journal*, Vol. 9, Issue. 2, June 2008, pp. 139-144, AIT, **Thailand**, ISSN 1513-718X, indexed in Compendex Database of Engineering Information (**EI Compendex**), [Refereed].
- (xi) Mohammad Rofiqul Islam, **Md. Rabiul Islam** and Mohd. Rafiqul Alam Beg, “Renewable Energy Resources and Technologies Practice in Bangladesh”, *Renewable and Sustainable Energy Reviews*, Vol. 12, No. 2, Feb. 2008, pp. 299- 343, **Elsevier Science, USA**, ISSN: 1364-0321, **ISI IDS Number: 256NS, EI: 20074910966658**, [Refereed, **Impact Factor 6.6**].
- (xii) **Md. Rabiul Islam**, Mohammad Rofiqul Islam and Mohd. Rafiqul Alam Beg, “Promotion of Solar Energy Use in Bangladesh”, *International Energy Journal*, Vol. 7, No. 3, Sept. 2006, pp. 207-219, AIT, **Thailand**, ISSN 1513-718X, indexed in Compendex Database of Engineering Information (**EI Compendex**), [Refereed].

7.2 In International Conference Proceeding:

- (i) **Md. Rabiul Islam**, Youguang Guo and Jianguo Zhu, “A Transformer-Less Compact and Light Wind Turbine Generating System for Offshore Wind Farms,” Proc. of 2012 IEEE International Conference on Power and Energy (**PECON2012**), Kota Kinabalu (**Malaysia**), December 2-5, 2012. Available IEEE explorer, Print ISBN: 978-1-4673-5017-4, IEEE USA, ISI indexed, **EI**: [Refereed].
- (ii) **Md. Rabiul Islam**, Youguang Guo and Jianguo Zhu, “A Medium-Frequency Transformer with Multiple Secondary Windings for Grid Connection Through H-Bridge Voltage Source Converters,” Proc. of International Conference on Electrical Machines and Systems (**ICEMS2012**), Sapporo (**Japan**), October 21-24, 2012. Available IEEE explorer, Print ISBN: 978-1-4673-2327-7, IEEE USA, **EI**: [Refereed].
- (iii) **Md. Rabiul Islam**, Youguang Guo and Jianguo Zhu, “A Novel Medium-Voltage Converter System for Compact and Light Wind Turbine Generators,” Proc. of Australasian Universities Power Engineering Conference (**AUPEC2012**), Bali (**Indonesia**), September 26-29, 2012. Available IEEE explorer, Print ISBN: 978-1-4673-2933-0, IEEE USA, **EI**: [Refereed].
- (iv) Md. Masud Rana, **Md. Rabiul Islam**, Md. Kamal Hosain and Abbas Z. Kouzani, “Parametric Investigation and Measurement of Near End and Far End Crosstalk in Multiconductor

Microstrip Transmission Lines” Proceedings of 2011 **IEEE** International Conference on Applied Superconductivity and Electromagnetic Devices (ASEMD), December 14-16, 2011, Sydney, **Australia**, Available IEEE explorer, Print ISBN: 978-1-4244-7852-1, IEEE USA, **EI: 20120914813827**, [Refereed].

- (v) **Md. Rabiul Islam**, Youguang Guo and Jian Guo Zhu, “H-Bridge Multilevel Voltage Source Converter for Direct Grid Connection of Renewable Energy Systems”, **IEEE** Power & Energy Society Innovative Smart Grid Technology Conference (**ISGT 2011** Asia), 13-16 November 2011, Perth, **Australia**, Available IEEE explorer, Print ISBN: 978-1-4244-7852-1, USA, **EI: 20121714957953**, [Refereed].
- (vi) **Md. Rabiul Islam**, Youguang Guo, Jian Guo Zhu and David Dorrell, “Design and Comparison of 11 kV Multilevel Voltage Source Converters for Local Grid Based Renewable Energy Systems”, 37th Annual Conference of the **IEEE** Industrial Electronics Society (**IECON 2011**), 7-10 November 2011, Melbourne, **Australia**, Available IEEE explorer, ISSN 1553-572X, USA, **EI: 20120614744761**, [Refereed].
- (vii) **Md. Rabiul Islam**, Youguang Guo and Jian Guo Zhu, “Performance and Cost Comparison of NPC, FC and SCHB Multilevel Converter Topologies for High-Voltage Applications”, International Conference on Electrical Machines and Systems 2011 (**ICEMS 2011**), 20-23 August 2011, Beijing, **China**, Available IEEE explorer, Print ISBN 978-1-4577-1044-5, USA, **EI: 20 115014604771**, [Refereed].
- (viii) **Md. Rabiul Islam**, Youguang Guo and Jian Guo Zhu, “Transformer-Less Local Grid Based 11 kV SCHB Multilevel Converter for Renewable Energy Systems”, International Conference on Electrical Machines and Systems 2011 (**ICEMS 2011**), 20-23 August 2011, Beijing, **China**, Available IEEE explorer, Print ISBN 978-1-4577-1044-5, USA, **EI: 20115014604459**, [Refereed].
- (ix) **Md. Rabiul Islam**, Youguang Guo and Jian Guo Zhu, “Steady State Characteristic Simulation of DFIG for Wind Power System”, 6th International Conference on Electrical & Computer Engineering (**ICECE**) 2010, 18-20 Dec. 2010, Dhaka, **Bangladesh**, Available IEEE explorer, Print ISBN 978-1-4244-6277-3, USA, **EI: 20110813691462**, [Refereed].
- (x) **Md. Rabiul Islam**, Youguang Guo and Jian Guo Zhu and M. G. Rabbani, “Simulation of PV Array Characteristics and Fabrication of Microcontroller Based MPPT”, 6th International Conference on Electrical & Computer Engineering (**ICECE**) 2010, 18-20 Dec. 2010, Dhaka, **Bangladesh**, Available IEEE explorer, Print ISBN 978-1-4244-6277-3, USA, **EI: 20110813691463**, [Refereed].
- (xi) **Md. Rabiul Islam**, Youguang Guo and Jian Guo Zhu, “Development of a Microcontroller Based Maximum Power Point Tracker for Solar PV System”, International Conference on Electrical Machines and Systems 2010 (**ICEMS 2010**), 10-13 Oct. 2010, Incheon, **Korea**, [Refereed].

- (xii) **Md. Rabiul Islam** and Omar Farrok, “Development of Photovoltaic Activities in Bangladesh”, Proceedings of the Conference on Electronics and Telecommunications 2010, Bangladesh Electronics Society, 2 June, 2010, Dhaka, **Bangladesh**, [Non Refereed].
- (xiii) M. Rakibul Islam, Md. Zulfikar Ali, and **Md. Rabiul Islam**, “Design and Fabrication of a Microcontroller Based Prepaid and Automatic Food Village Control System”, Proceedings of the Conference on Electronics and Telecommunications 2010, Bangladesh Electronics Society, 2 June, 2010, Dhaka, **Bangladesh**, [Non Refereed].
- (xiv) **Md. Rabiul Islam**, Mirza Golam Rabbani and Omar Farrok, “Renewable Energy in Bangladesh”, Proceedings of the Conference on Engineering Research, Innovation and Education 2010 (**CERIE 2010**), 11-13 January, Sylhet, **Bangladesh**, [Non Refereed].
- (xv) Momtaz Parveen, Hiroyuki HANIU Mohammad Rofiqul Islam, **Md. Rabiul Islam**, “Advances of Technology for Bio-Crude Oils From Thermo-chemical Conversion of Biomass Solid Wastes”, Proceedings of the Conference on Engineering Research, Innovation and Education 2010 (**CERIE 2010**), 11-13 January, Sylhet, **Bangladesh**, [Non Refereed].
- (xvi) Omar Farrok, Mirza Golam Rabbani and **Md. Rabiul Islam**, “Design and Simulation of a Novel Controller to Minimize the Harmonic Components of the PWM Inverter”, Proceedings of the Conference on Engineering Research, Innovation and Education 2010 (**CERIE 2010**), 11-13 January, Sylhet, **Bangladesh**, [Non Refereed].
- (xvii) Mohammad Rofiqul Islam, Momtaz Parveen, **Md. Rabiul Islam** and Hiroyuki HANIU, ”Technology development for bio-crude oil from pyrolysis of renewable biomass resource”, In the Proceedings of 1st International Conference on the Developments in Renewable Energy Technology (**ICDRET’09**), December 17-20, 2009, Dhaka, **Bangladesh** Available IEEE explorer, Print ISBN 978-1-4244-6012-0, USA, **EI: 20102212964020**, [Refereed].
- (xviii) M.J. Hossain, **Md. Rabiul Islam**, M.S. Anower, and M.A. Hoque, “A Novel Fuzzy Logic Based Speed Control for IPMSM Drive” In the Proceedings of **ICCIT 2006**, 21-23 December, 2006, Dhaka, **Bangladesh**, [Refereed].

7.3 In M.Sc. Engineering Thesis/ Project:

- (i) **Md. Rabiul Islam**, “Renewable Energy in Bangladesh and Design of a Microcontroller Based Maximum Power Point Tracker for Solar Photovoltaic System.” M. Sc. Engineering Thesis, 2009, EEE, RUET, Bangladesh.

7.4 In Graduation Thesis/ Project:

- (i) **Md. Rabiul Islam** and A. H. M. Ahsan Habib, “Economic Design, Fabrication and Performance Study of MOSFET Based PWM Uninterrupted Power Supply (UPS) Unit”,

B. Sc. Engineering Thesis, September 2003, EEE, RUET, Bangladesh.

8. Honors/ Awards:

Name	Description
Best Paper Awards	Best Paper-Power Electronics Awards form 2012 IEEE International Conference on Power and Energy
IPRS	International Postgraduate Research Scholarship, 2010 to 2013, Government of Australia
UTSP	University of Technology Sydney President Scholarship, 2010 to 2013
University Gold Medal	Outstanding academic performance in B. Sc. Engineering.
Joyal Memorial Award	First position in the combined merit list in the second year B.Sc. Engineering Examination of RUET, Rajshahi.

9. Short Course/ Training:

Type	Organized By	Period	Description
Conference	UTS, Sydney	26 Sept., 2011	Casual Academics Conference, Share information on teaching and learning.
Workshop	UTS, Sydney	5-8 Apr., 2011	Casual Academic Workshops, Strategies for: teaching, learning, marking and feedback.
Workshop	UTS, Sydney	3 Feb., 2011	Google Skills
Workshop	UTS, Sydney	2 Feb., 2011	Using EndNote to Manage Bibliographies
Short Course	UTS, Sydney	7-8, Dec., 2010	Matlab, Simulink for System and Algorithm Modeling
Short Course	IUT, Dhaka	20-24 Dec, 2008	Electricity-the Most Preferred form of Energy.
Short Course	IUT, Dhaka	10-13 Nov, 2008	Energy Conservation in Industries.
Workshop	Bangladesh Electronics Society	30 June, 2008	Radio Communications
Workshop	BUET, Dhaka	22-23 Dec, 2005	Cutting Edge IC/Chip Design and Implementation Practices with Global Industry Perspectives.

10. Membership of Professional Organization:

Name of Organization	Status of Membership	Membership Number	Period
Australian Institute of Energy	Member	4030	2012-till to date
The Institution of Engineers, Bangladesh	Member	M/21200	2006-till to date