

Prof. Dr. Mahmud Abdul Matin Bhuiyan

Head, NE, Chittagong University of Engineering & Technology (CUET)
Former Dean, Faculty of Electrical & Computer Engineering (ECE), CUET
Former Director, IET, Chittagong University of Engineering & Technology (CUET)
Professor & Former Head, Department of Electrical & Electronic Engineering (EEE)
Chittagong University of Engineering & Technology (CUET), Chittagong, Bangladesh
Tel: +88031-714952, Cell: +8801713109853, E-mail: mamatin@cuet.ac.bd

PERSONAL DETAILS:

Full Name : Dr. Mahmud Abdul Matin Bhuiyan
Nationality : Bangladeshi
Date of Birth : 13 Oct, 1970
Marital Status : Married
Father Name : Late Zainul Abedin
Mother Name : Rokeya Akther
Present Address : Professor, Department of Electrical & Electronic Engineering, Faculty of Electrical & Computer Engineering., Chittagong University of Engineering & Technology (CUET), Chittagong, Bangladesh.

Permanent Address : Vill; G. Kaliain, PO: Atharabari, PS: Ishwargong, Dist: Mymensingh.

EDUCATION

PhD.

Specialization: Electrical Engineering (Solar Energy)
Institute: Universiti Kebangsaan Malaysia (UKM), Malaysia.
Date of completion: June, 2011
Title of thesis: High Performance CdTe Solar Cells with BSF

M. Engg.

Specialization: Electrical Engineering (Fiber Optics)
Institute: Universiti Teknologi Malaysia (UTM), Malaysia.
Date of completion: January, 2004
Title of master's thesis: Design and Simulation of Polymer Based 2×2 Optical Switch and Coupler.

B. Sc. Engg.

Specialization: Electrical & Electronic Engineering (EEE)
Institute: Chittagong University of Engineering & Technology (CUET), Bangladesh
Date of completion: April, 1996

SSC & HSC

Institute: Sylhet Cadet College, Bangladesh
Date of completion: SCC in 1986 & HSC in 1988

PROFESSIONAL EXPERIENCE

TEACHING EXPERIENCE

Professor : June 2013 to date
Department of Electrical & Electronic Engineering (EEE),
Chittagong University of Engineering & Technology (CUET), Bangladesh

Associate Professor: January 2012 to June 2013
Department of Electrical & Electronic Engineering (EEE),
Chittagong University of Engineering & Technology (CUET), Bangladesh

Assistant Professor: February 2000 to January 2012
Department of Electrical & Electronic Engineering (EEE),
Chittagong University of Engineering & Technology (CUET), Bangladesh

Lecturer: 10 October 1996 to 28 February 2000
Department of Electrical & Electronic Engineering (EEE),
Chittagong University of Engineering & Technology (CUET), Bangladesh

ADMINISTRATIVE EXPERIENCE

(1) **Head:** Department of Nuclear Engineering (NE), Chittagong University of Engineering & Technology (CUET), Bangladesh, from April 2023 to date.

(2) **Dean:** Faculty of Electrical & Computer Engineering (ECE), Chittagong University of Engineering & Technology (CUET), Bangladesh, from April 2015 to April 2017.

(3) **Director:** Institute of Energy Technology (IET), Chittagong University of Engineering & Technology (CUET), Bangladesh, from May 2019 to May 2021.

(4) **Head:** Department of Electrical & Electronic Engineering (EEE), Chittagong University of Engineering & Technology (CUET), Bangladesh, from January 2012 to March 2015.

(5) **Provost:** Dr. Q. K. Hall, Chittagong University of Engineering & Technology (CUET), Bangladesh from March, 2011 to March, 20012.

(6) **Assistant Provost:** Dr. Q. K. Hall, Chittagong University of Engineering & Technology (CUET), Bangladesh from 28 March, 1999 to 14 January, 2001 & 7th September 2003 to 27 January 2008.

(7) **Syndicate Member:** Chittagong University of Eng. & Technology, Chittagong-4349, Bangladesh, September 2015 to August 2016 and December 2022 to date.

(8) **Academic Council Member:** Chittagong University of Eng. & Technology, Chittagong-4349, Bangladesh, January 2012 to date.

COMPUTER SKILL

Programming Language: FORTRAN, C+, Assembly Language

Packages: BPM_CAD, AMPS, SCAPS, MS Word, Power Point, Windows Supported Software.

LANGUAGE PROFICIENCY

Bengali: (Mother tongue) fluently spoken, written and understood.

English: Fluently spoken, written and understood.

Urdu: Spoken and understood.

Bahasa Malaysia: Spoken and understood.

PROFESSIONAL MEMBERSHIP

- **Member: IEB and IEEE**

PROFESSIONAL EXPERIENCES

- **Chairman of BRTC (EEE), CUET: from January 2012 to March 2015**
- **Treasurer of BRTC (EEE), CUET: from January 2005 to January 2008**
- **Active Member of BRTC (EEE), CUET from January 2000 to date**

PROJECT MANAGEMENT

SPM, CP 3200 (HEQEP) Funded by World Bank (Project Money: 425 Lac), from July 2014 to December 2017

Worked as project leader of many research and development projects in CUET related to renewable energy.

FIELD OF EXPERTISE

Energy Conversion, Renewable Energy Resources, Alternative Energy, Electrical Machines, Solar Photovoltaic Technologies, Solar Cells, Materials and PV Systems, Microelectronics, Optical Devices (Couplers, Switches & OADM), All Optical Networks (AON), High Density Optical Switches and Electronic Devices.

COURSES TAUGHT

In Undergraduate:

- 1) Basic Electrical Engineering
- 2) Electrical Circuits

- 3) Electronics I
- 4) Electronics II
- 5) Electrical Machines and Transformers
- 6) Electrical Machines I
- 7) Electrical Machines II
- 8) Electrical Machines III
- 9) Generalized Machine Theory
- 10) Power Transmission and Distribution
- 11) Switchgear and Protection
- 12) Renewable Energy Conversion

In Postgraduate:

- 1) Optical Fiber Communication
- 2) Energy Engineering
- 3) Wind and Solar Energy Conversion Systems
- 4) Solar Photovoltaic Energy and Systems
- 5) Solar Energy Conversion

Supervision

- 1) Supervised more than 210 undergraduate final years BSc. Students (EEE) for their thesis & projects.
- 2) Supervised 07 postgraduate students for MSc degree and few are going on.
- 3) Supervised 02 postgraduate students for PhD and few are going on.

Conferences and Workshops

- 1) Chair for 1st National Conference on Electrical & Communication and Renewable Energy (NCECRE 15), 14-16 February, 2015 in CUET.
- 2) Chair for 1st International Conference on Electrical, Computer and Communication Engineering (ECCE 17) 07-09 February, 2017 in Coxes-Bazar.
- 3) Joined over 10 International Conference as session's chair, in many workshops and presented papers in many international conferences in home and abroad.
- 4) Keynote speaker in many seminars related to Energy Conversion, Renewable Energy Resources, Alternative Energy, Solar Photovoltaic Technologies, Solar Cells, Materials and PV Systems.
- 5) Have editorial contributions to review for proceedings in conferences and many academic journals

LIST OF PUBLICATIONS (In total 127) Total citations: 1,319

International Journals:

1. N. K. Das, S.F.U. Farhad, A. K. Sen Gupta, E. M. K. Iqbal Ahamed, **M. A. Matin** and N. Amin, "The significance of bilayer window (CdS:O/CdS) on the performance of CdTe thin film solar cells" *Optical Materials*, Volume 155, Pp., <https://doi.org/10.1016/j.optmat.2024.115816>, September 2024.
2. A. K. Sen Gupta, N. K. Das, and **M. A. Matin** et. al., "Characterizations of extrinsically doped CZTS thin films for solar cell absorbers fabricated by sol-gel spin coating method" *Applied Surface Science Advances* 13(1–4):100352, DOI: [10.1016/j.apsadv.2022.100352](https://doi.org/10.1016/j.apsadv.2022.100352), February 2023.
3. Maitry Dey, N. K. Das, M. Dey, S.F.U. Farhad, **M. A. Matin** and N. Amin, "Impact of Source to Substrate Distance on the Properties of Thermally Evaporated CdS Film" *International Journal of Renewable Energy Research*, Vol.11, No.1, March, 2021.
4. N. K. Das, J. Chakrabarty, Mrinmoy Dey, A. K. Sen Gupta and **M. A. Matin**, "Present energy scenario and future energy mix of Bangladesh," *Energy Strategy Reviews*, pp. 100576, 2020, doi: [10.1016/j.esr.2020.100576](https://doi.org/10.1016/j.esr.2020.100576), November 2020.
5. E. M. K. Iqbal Ahamed, N. K. Das, A. K. S. Gupta, M. N. I. Khan, **M. A. Matin**, N. Amin, "Structural and Optical Characterization of As-grown and Annealed Zn_xCd_{1-x}S Thin-films by CBD for Solar Cell Applications," *International Journal of Renewable Energy Research*, Vol. 10, Issue 3, pp.1464-1475, September 2020.
6. N. K. Das, J. Chakaraborty, S. F. U. Farhad, A. K. S. Gupta, E. M. K Iqbal Ahamed, K. S. Rahman, A. Wafi, A. A. Alkahtani, **M. A. Matin** and N. Amin, "Effect of substrate temperature on the properties of RF sputtered CdS thin films for solar cell applications," *Results in Physics*, 17 (2020)103132, doi.org/10.1016/j.rinp.2020.103132, June 2020.
7. S. A. Razi, N. K. Das, S. F. U. Farhad, and **M. A. Matin**, "Influence of the CdCl₂ solution concentration on the properties of CdTe thin films," *International Journal of Renewable Energy Research*, Vol. 10, No. 2, pp. 1012–1020, June 2020.
8. K. M. Kabir, S. Mazumder, M. S. U. Chowdhury, **M. A. Matin**, M. W. U. Forhad and A. Mallick, "Design and analysis of a grid-connected hybrid power system with constant supply for Patenga, Bangladesh," *Cogent Engineering-Taylor & Francis*, 7(1), 1762524, pp. 1-20. DOI: [10.1080/23311916.2020.1762524](https://doi.org/10.1080/23311916.2020.1762524), May 2020.
9. N. K. Das, S. F. U. Farhad, J. Chakaraborty, A. K. S. Gupta, M. Dey, M. Al-Mamun, **M. A. Matin** and N. Amin, "Structural and Optical Properties of RF-Sputtered CdTe Thin Films Grown on CdS:O/CdS Bilayers," *International Journal of Renewable Energy Research*, vol. 10, no. 1, pp. 293–302, March 2020.

10. Shahahmadi, S. A., Yussoff, Y., Xiong, J. L. C., Rokonuzzaman, M., Kabir, K. M., **Matin, M. A.** and Amin, N, "Optimum design consideration for Photovoltaic-thermometric generator," *International journal of recent technology and engineering (IJRTE)*, Vol. 8, Issue 4, pp. 6172-6176, December 2019.
11. **M. A. Matin**, M. Quamruzzaman, M. R. T. Hossain and N. Amin, "High-Efficiency Ultra-Thin Cadmium Telluride Solar Cell with Arsenic Telluride BSF", *Journal of Advanced Research in Electrical and Electronic Engineering (JAREEE)*, 1 (1), pp.1-7, <http://www.cuet.ac.bd/jareee/volume1.php>, July 2017.
12. K.M. Kabir and **M. A. Matin**, "Design & simulation of hydrogen based hybrid green power system using sea water for Cox's Bazar," *Cogent Engineering – Taylor & Francis*, 4(1),1347029. pp. 1-14, 2017, , doi.org/10.1080/23311916.2017.1347029, July 2017.
13. R. Islam, M. M. Uddin, M. Mofazzal Hossain, M. B. Santos, **M. A. Matin**, and Y. Hirayama, "Design and Performance Analysis of Depletion-Mode InSb Quantum-Well Field-Effect Transistor for Logic Applications," *Journal of Molecular and Engineering Materials*, 05 (02), DOI: 10.1142/S225123731750006X, June 2016.
14. R. Islam, M. M. Uddin, **M. A. Matin**, "Self-Consistent Quasi Static Capacitance-Voltage Characterization of Depletion Mode InSb Quantum Well FET" submitted to nanos 2015 (**Advanced Materials Research**).
15. Mrinmoy Dey, **M. A. Matin** and Maitry Dey, "Arsenic Telluride BSF for High Performance and Stable ultra-thin CdTe PV cell," *International Journal of Research in Computer Engineering and Electronics*, vol. 4, no. 2, July 2015.
16. R. Islam, M. M. Uddin, **M. A. Matin**, "Optimized Novel Indium Antimonide Quantum Well Field Effect Transistor for High-Speed and Low Power Logic Applications" *ECS Transaction 69 (5)*, 3-8, DOI: 10.1149/06905.0003ecst, July 2015.
17. Md. Atiqur Rahaman, M. A. Matin, Apurba Sarker, Md. Rubaiat Uddin, "A Cost Effective Solar Charge Controller" *International Journal of Research in Engineering and Technology (IJRET)*, Vol. 4, Issue. 3, eISSN: 2319-1163, pISSN: 2321-7308, March 2015.
18. M. Quamruzzaman, Nur Mohammad, **M. A. Matin** and M. R. Alam, "Highly efficient maximum power point tracking using DC–DC coupled inductor single-ended primary inductance converter for photovoltaic power systems", *International Journal of Sustainable Energy*, Vol. 35 (2014), No. 09, pp. 914-932. <http://dx.doi.org/10.1080/14786451.2014.961922>, 2014.
19. **Mahmud Abdul Matin Bhuiyan and Anand Mandal**, "Optimum planning of Hybrid Energy System Using HOMER for Rural Electrification", *International Journal of Renewable Energy Technology*, Vol. 5 (2014), No. 4., pp. 299-307, DOI: [10.1504/IJRET.2014.065373](https://doi.org/10.1504/IJRET.2014.065373), October 2014.
20. **M. A. Matin**, M. U. Tomal, A. M. Robin and N. Amin, "Numerical Analysis of Novel Back

Surface Field for High Efficiency Ultrathin CdTe Solar Cells”, *International Journal of Photoenergy*, Volume 2013, Article ID 652695, 8 pages: <http://dx.doi.org/10.1155/2013/652695>, November 2013.

21. **Mahmud Abdul Matin Bhuiyan**, Anik Deb, Arefin Nasir “Optimum planning of Hybrid Energy System Using HOMER for Rural Electrification”, *International Journal of Computer Applications*, Vol. 66 (2013), No.13, pp. 45-52, 2013.
22. Anik Deb, **Mahmud Abdul Matin Bhuiyan**, Arefin Nasir “Prospect of Solar Energy in Bangladesh”, *IOSR Journal of Electrical and Electronics Engineering*”, Vol. 4 (2013), Issue 5, pp. 46-57, 2013.
23. Md. Sharafat Hossain, **Mahmud Abdul Matin**, M A Islam, Mohammad Mannir Aliyu, Takhir Razykov, Kamaruzzaman Sopian and Nowshad Amin, “Towards Ultra Thin and High Efficiency $Zn_xCd_{1-x}S/CdTe$ Solar Cell by AMPS 1D” *Advanced Materials Research*, Vols. 622-623 (2013) pp. 1183-1187, Switzerland. DOI: 10.4028/www.scientific.net/AMR.622-623.1183, November 2012.
24. M. M. Aliyu, M. A. Islam, N. R. Hamzah, M. R. Karim, **M. A. Matin**, K. Sopian and N. Amin, “Recent Developments of Flexible CdTe Solar Cells on Metallic Substrates: Issues and Prospects,” *International Journal of Photoenergy*, Vol. 2012, pp. 1-10, 2012.
25. **Mahmud Abdul Matin Bhuiyan**, Mohammad Shafkat Islam, Amit Jyoti Datta, “Modeling, Simulation and Optimization of High Performance CIGS Solar Cell”, *International Journal of Computer Applications*, Vol. 57 (2012), No.16, pp. 26-30, 2012.
26. M. S. Hossaina, M. M. Aliyua, **M. A. Matin**, M. A. Islama, M. R. Karimc, T. Razykovb, K. Sopianb and N. Amin, “Effect of different BSR in front and back contacts for $Zn_xCd_{1-x}S/CdTe$ solar cell”, *International Journal of Mechanical and Materials Engineering (IJMME)*, Vol.6 (2011), No.3, pp. 350-355, 2011.
27. Md. Sharafat Hossain, Nowshad Amin, **M. A. Matin**, M. Mannir Aliyu, Takhir Razykov and Kamaruzzaman Sopian, “A numerical study on the prospects of high efficiency ultra thin $Zn_xCd_{1-x}S/CdTe$ solar cell”, *Chalcogenide Letters*, Vol. 8, no. 3 (2011), pp. 263-272. ISSN 1584-8663, 2011.
28. **M. A. Matin**, M. Mannir Aliyu, Abrar H. Quadery and Nowshad Amin, “Prospects of Novel Front and Back Contacts for High Efficiency Cadmium Telluride Thin Film Solar Cells from Numerical Analysis”, *Solar Energy Materials and Solar Cells*, 94, (2010), pp.1496-1500, 2010.
29. **M. A. Matin**, Nowshad Amin, Azmi Zaharim and Kamaruzzaman Sopian, “A study towards the Possibility of Ultra Thin CdS/CdTe High Efficiency Solar Cell from Numerical Analysis”, *WSEAS TRANSACTION on ENVIRONMENT and DEVELOPMENT*, 8 (6), 2010, 572-580, 2010.
30. Nowshad Amin, **M. A. Matin**, M. M. Aliyu, M. A. Alghoul and K. Sopian, “Prospects of Back Surface Field Effect in Ultra Thin High Efficiency CdS/CdTe Solar Cells from Numerical Modeling”, *International Journal of Photoenergy*, Volume 2010 (2010), Article ID 578580, doi:10.1155/2010/578580, 2010.

International Conferences

31. A. K. Sen Gupta, M. R. Hossain, N. K. Das, **M. A. Matin** and M. Quamruzzaman “CZTS/CdS and CZTS/ZnS Heterojunction Interface Utilizing X-Ray Photoelectron Spectroscopy” 6th International Conference on Electrical Information and Communication Technology (EICT), DOI: 10.1109/EICT61409.10427956, 2023.
32. Abu Shufian¹, Raihan Chowdhury, Nur Mohammad, and **M. A. Matin**, “Renewable Energy of Bangladesh for Carbon-free Clean Energy Transition (C2ET)” 2nd IEEE International Conference on Advancement in Electrical and Electronic Engineering 4-26 Gazipur, Bangladesh, Pp. 132-138, DOI: 10.1109/ICAEEE54957.2022.9836378. February, 2022,
33. N. K. Das, S. F. U. Farhad , J. Chakaraborty, **M. A. Matin**, and N. Amin, “Effect of CdS_{1-x}Te_x Intermix Layer Thickness on CdTe Solar Cell Performance,” *EU 37 Photovoltaic Spec. Conf. (PVSC2020)*, pp.713-717, September 2020.
34. E. M. K. Ikbali Ahamed, N. K. Das, S. F. U. Farhad, M. N. I. Khan, **M. A. Matin**, N. Amin, “Optical Characterization of Sputter Deposited CdS Thin Films and Measurement of Deposition Rate,” *IEEE Region 10 Symposium*, November 2020.
35. E. M. K. Ikbali Ahamed, A. K. S. Gupta, M. N. I. Khan, **M. A. Matin** and N. Amin,” Effect of Annealing Temperature on the Structural and Optical Properties of CdS Thin Films Deposited by CBD,” *IEEE Region 10 Symposium*, November 2020.
36. N. K. Das, J. Chakrabartty, S. F. U. Farhad, **M. A. Matin** and N. Amin, “Effect of growth temperature on the structural and optical properties of CdS:O thin films for CdTe solar cells,” *4th International Conference on Electrical Information and Communication Technology (EICT)*, 20-22 December 2019, Khulna, Bangladesh, pp. 1–5, 2019.
37. A. Hoque, S. Debnath and **M. A. Matin**, “Design and Simulation of Efficient Perovskite Tandem Solar Cell,” *International Conference on Mechanical Engineering and Renewable Energy (ICMERE2019-P1-212)*, pp. 1-5, December, 2019.
38. A. K. S. Gupta, E. M. K. I. Ahamed, M. Quamruzzaman, **M. A. Matin**, K. S. Rahaman and N. Amin, "Characterization of Intrinsic and Doped ZnO Thin-Films Deposited by RF Magnetron Sputtering for Chalcogenide Based Solar Cell Applications," 4th International Conference on Electrical Information and Communication Technology (EICT), Khulna, Bangladesh, pp. 1-4. doi: 10.1109/EICT48899.2019.9068786, December 2019.
39. A. K. S. Gupta, E. M. K. I. Ahamed, M. Quamruzzaman, **M. A. Matin**, K. S. Rahaman and N. Amin, "Structural properties of bi-layer Molybdenum Thin-film deposited by RF magnetron sputtering for CZTS solar cells," 5th International Conference on Advances in Electrical Engineering (ICAEE), Dhaka, Bangladesh, pp. 600-603. doi: 10.1109/ICAEE48663.2019.8975448, December 2019.
40. S. A. Razi, N. K. Das, S. F. U. Farhad, and **M. A. Matin**, “Influence of CdCl₂ Treatment Temperature on Structural and Opticle Properties of CdTe Thin Films,” in *Proceedings of the 5th International Conference on Advances in Electrical Engineering (ICAEE)*, Dhaka, 2019, pp. 585–590, 26-28 September 2019.
41. Maitry Dey, Sarzina Akther, Ahmad Ullah Romy, Mrinmoy Dey, **M. A. Matin** and Mohammad Rafiqul Alam, “Modeling and Simulation of Highly Efficient Single Junction GaInP Solar Cell,”

- in Proceedings of the 5th International Conference on Advances in Electrical Engineering (ICAEE 2019)*, Dhaka (IUB), Bangladesh, 26-28 September, 2019.
42. E. M. K. Ikbali Ahamed, A. K. S. Gupta, M. N. I. Khan, **M. A. Matin**, N. Amin, "Structural Properties of CdS Thin-films Deposited by RF Magnetron Sputtering," *IEEE 5th International Conference on Advances in Electrical Engineering (ICAEE)*, 2019.
 43. Maitry Dey, N. K. Das, **M. A. Matin**, "Effect of Thermally Evaporated n-CdTe Thin Film for Homojunction CdTe Solar Cell," *in Proceedings of the 5th International Conference on Advances in Electrical Engineering (ICAEE 2019)*, Dhaka (IUB), Bangladesh, 26-28 September, 2019.
 44. N. K. Das, S. A. Razi, K. S. Rahman, **M. A. Matin** and N. Amin, "Electrical Properties of CSS Deposited CdTe Thin Films for Solar Cell Applications," *Int. Conf. Adv. Sci. Eng. Robot. Technol. 2019, ICASERT 2019*, pp. 1–4, July 2019. 368
 45. N. K. Das, S. F. U. Farhad, J. P. Chakaraborty, **M. A. Matin**, N. Amin, "Structural and optical properties of RF-sputtered CdTe thin films," *3rd Int. Conf. Phy. Sust. Deve. Tech.* 2019.
 46. E. M. K. Ikbali Ahamed, A. K. Sen Gupta, M. Quamruzzaman and **M. A. Matin**, "An Efficient CZTS Solar Cell from Numerical Analysis," *IEEE 1st International Conference on Advances in Science, Engineering and Robotics*, DOI: 10.1109/ICASERT.2019.8934858, April 2019.
 47. N. K. Das, A. K. Sengupta, M. Dey, K. S. Rahman, **M. A. Matin** and N. Amin, "Effect of Cd_{1-x}Zn_xS Window Layer Incorporation in CdTe Solar Cell by Numerical Simulation," *International Conference on Electrical, Computer and Communication Engineering (ECCE)*, 7-9 February, 2019., pp. 1–5, February 2019.
 48. Maitry Dey, N. K. Das, A. K. Sengupta, Mrinmoy Dey, M. S. Hossain, **M. A. Matin** and N. Amin, "Deposition of CdS Thin Film by Thermal Evaporation," *in Proceedings of the 2nd International Conference on Electrical, Computer and Communication Engineering (ECCE 2019)*, Cox's Bazar (CUET), Bangladesh, 07-09 February, 2019.
 49. M. J. M Sunny, M. A. Rahman and **M. A. Matin**, "Affordable Electricity for Bhasan Char from Renewable Energy," *International Conference on Electrical, Computer and Communication Engineering (ECCE)*, 7-9 February 2019.
 50. K. M. Kabir, **M. A. Matin**, H. Misran & N. Amin, "A Case Study on Cost-efficient Solar Powered Drinking Water System for Isolated Communities," *International Conference on Innovation in Engineering and Technology (ICIET)*, pp.1-5, December 2018.
 51. Nargis Akter, Md. Salim Miah, **M. A. Matin** and N. Amin, "Prospect of Back Contact for A Highly Efficient InGaN Thin Film Solar Cell from Numerical Analysis," *International Conference on Innovations in Science, Engineering and Technology (ICISSET 2018)* Chittagong (IIUC), Bangladesh, DOI: 10.1109/ICREST.2019.8644303, December, 2018.
 52. K. M. Kabir, **M. A. Matin**, H. Misran and N. Amin, "A Case Study on Cost-efficient Solar Powered Drinking Water System for Isolated Communities," *International Conference on Innovations in Engineering and Technology (ICIET)*, 27-29 December, 2018.
 53. K. M. Kabir, **M. A. Matin**, H. Misran and N. Amin, "Solar Photovoltaic Assisted Cost-efficient Brackish Water Purification System," *International Conference on Electrical Engineering and Information & Communication Technology (iCEEICT 2018)*, DOI: 10.1109/CEEICT.2018.8628127, September 2018.
 54. Afiquel Islam, Anik Das, Nazmul Sarkar, **M. A. Matin** and N. Amin, "Numerical Analysis of PbSe/GaAs Quantum Dot Intermediate Band Solar Cell (QDIBSC)" *IEEE International*

- Conference on computer, Communication, Chemical, Material and Electronic Engineering (IC4ME2)*, DOI: 10.1109/IC4ME2.2018.8465665, February 2018.
55. M. A. F. Siaddique, M.M. H. Tareq and **M. A. Matin**, "A Study on the Performance of Cadmium Telluride (CdTe) Solar Cells Simulating with Different Layers in Front Contact" *IEEE International Conference on computer, Communication, Chemical, Material and Electronic Engineering (IC4ME2)*, DOI: 10.1109/IC4ME2.2018.8465586, February 2018.
 56. A. R. Zaki, M. A. F. Siaddique, M. N. Sadat and **M. A. Matin**, "Numerical Modelling of Kesterite CZTS Solar Cells for Different Transparent Conductive Oxide (TCOs) With SnS as Potential BSF Layer," *IEEE International Conference on computer, Communication, Chemical, Material and Electronic Engineering (IC4ME2)*, DOI: 10.1109/IC4ME2.2018.8465631, February 2018.
 57. Kriti Sohag Chakma, Tonmoy Biswas and **M. A. Matin**, "Design and Optimization of Eco-friendly Hybrid Power for Chittagong Hill Tracts of Bangladesh" *4th International Conference for Convergence in Technology (I2CT)*. DOI: 10.1109/I2CT42659.2018.9057903, 2018.
 58. Md. Mahedi Hasan, **M. A. Matin** Md. Mahade Sarkar and H Mahmud, "CdTe Thin Film Fabrication by Thermal Evaporation Technique," *2nd International Conference on Electrical & Electronic Engineering (ICEEE)*, DOI: 10.1109/CEEE.2017.8412886, December 2017. 390
 59. M. N. Hasan, M. M. Habib, **M. A. Matin** and N. Amin, "Modeling of high efficient perovskite-Si tandem solar cell," *International Conference on Electrical Information and communication Technology (EICT)*, 7-9 December, DOI: 10.1109/EICT.2017.8275213, December 2017. 391
 60. E. M. K. Ikbali Ahamed, **M. A. Matin**, Nowshad Amin, "Modeling and simulation of highly efficient ultra-thin CIGS solar cell with MoSe₂ tunnel," *IEEE 4th International Conference on Advances in Electrical Engineering (ICAEE)*, 2017. 392
 61. K. M. Kabir, **M. A. Matin** and N. Amin, "A Solar Powered Desalination System for Remote Region in Bangladesh" *4th International Conference on Mechanical Engineering and Renewable Energy (ICMERE)*, pp. 1-5, December 2017. 393
 62. N. K. Das, M. Dey, A. K. S. Gupta and **M. A. Matin**, "Present energy usage and future energy security of Bangladesh," *2nd Int. Conf. Phy. Sust. Deve. Tech.* 2017. 394
 63. K.M. Kabir, **M.A. Matin**, M.S.U. Chowdhury & R. Chowdhury, "Design and Analysis of Grid Connected Biomass System Utilizing Chittagong Municipal Food Waste," *3rd International Conference on Electrical Information and Communication Technology (EICT)*, pp. 1-4, December, 2017. 395
 64. Mrinmoy Dey, Rishita Chakma, Nazia Rahman, Maitry Dey, NK Das, AK Sen Gupta, **M. A. Matin**, Nowshad Amin, "Study of ultra-thin and stable AlSb solar cell with potential copper telluride BSF," in *Proceedings of the IEEE Region 10 Humanitarian Technology Conference (R10-HTC-2017)*, pp. 811-814, Dhaka (BUET), Bangladesh, 21-23 December, 2017. 396
 65. Md. Nazmus Sadat, Farhad Hossain, Kazi S. M. Ishmam Ul Hoque, Maitry Dey, Mrinmoy Dey, N. K. Das, A. K. Sen Gupta and **M. A. Matin**, "Potentiality Assessment of Tidal Power In Bangladesh," *International Conference on Mechanical Engineering and Renewable Energy (ICMERE - 2017)*, PI-409, CUET, Chittagong, Bangladesh, 18-20 December 2017. 397
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REFERENCES

(1) **Name: Prof. Dr. Md. Rafiqul Alam**

Position: Professor, Department of Electrical & Electronic Engineering, Faculty of Electrical & Computer Engineering. CUET and **Ex-VC, CUET.**

Address: Dept. of Electrical & Electronic Engineering, Faculty of Electrical & Computer Engineering, Chittagong University of Engineering and Technology (CUET), Chittagong-4349, Bangladesh., Contact Tel Number & E-mail address: Tel: +880-31-714952 (Off.), Mobile: +8801711762370, E-mail: mra@cuet.ac.bd, vc@cuet.ac.bd

Relationship: Direct undergraduate classroom teacher & Supervisor of final year thesis and Employer.

(2) Name: Prof. Dr. Nowshad Amin

Position: Professor in the Department of Electrical Electronics & Systems Engineering, Faculty of Engineering and Built Environment, UKM, Malaysia and Researcher & group leader of PV group in SERI, UKM, Malaysia, Address: Dept. of Electrical Electronics & Systems Engineering, Faculty of Engineering and Built Environment, UKM, Malaysia. Contact Tel Number & E-mail address: Tel: 603 - 8921 6325 (Off.), Mobile: +6019-3296750, Fax: +603-8921-6146, E-mail: nowshad@aiub.edu

Relationship: PhD Supervisor.

(Prof. Dr. Mahmud Abdul Matin Bhuiyan)

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