

Curriculum Vitae



M. Mofazzal Hossain, PhD, Senior Member IEEE

Pro-Vice Chancellor
Southeast University

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SUMMARY & ACHIEVEMENTS

- 30 years of teaching, research and administrative experience at universities in home and abroad.
- Postdoc at Tokyo Institute of Technology, Tokyo, Japan (2005-2007)
- PhD in Electrical and Electronic Engineering from Kanazawa University, Japan (2003)
- Administrative experience as Dean of Faculty/School at East West University and University of Liberal Arts Bangladesh (ULAB)
- Administrative experience as Head/Chairperson of EEE, ETE and ECE departments at CUET, East West and ULAB
- Experience on Outcome Based Education (OBE) Curriculum Development and IEB Accreditation
- Chair of Evaluation Team of BAETE for Accreditation of EEE and ETE programs

- Received “Education Leadership Award 2019” from World Education Congress in 2019
- 89+ publications in peer reviewed international journals and conferences
- 360 Google Scholar citation with h-index: 10, and i-10 index: 10
- Supervised one PhD student at Chittagong University of Engineering and Technology (Completed in 2015).
- 16+ Graduate and 130+ undergraduate thesis/project supervision
- Plenary speaker in IEEE REEPE 2021 international conference, 11-13 March 2021, Moscow Power Engineering Institute, Moscow, Russia
- Reviewer of international journals and international conferences
- Resource person in “Workshops on Outcome Based Education”
- Recipient of Japanese government and private scholarships for pursuing M.S and PhD (1998-2003)
- Recipient of JSPS (Japan Society for the Promotion of Science) at Tokyo Institute of Technology (2005-2007)

EDUCATION

POSTDOCTORAL FELLOWSHIP:

JASSO (Japan Student Services Association) Post-Doctoral Fellowship (15 October 2014 to 12 January 2015).

JSPS (Japan Society for the Promotion of Science) Post-Doctoral Fellowship, (Nov 2005 – Nov 2007)

Ph. D

Specialization: Electrical & Electronic Engineering

Institute: **Kanazawa University, Japan**

Year: March 2003

Thesis Title: “Fundamental Study and Applications of Pulse-Modulated Induction Thermal Plasma”.

M. Sc Eng.

Specialization: Electrical & Electronic Engineering

Institute: **Kanazawa University, Japan**

Year: March 2000

B. Sc. Eng.

Specialization: Electrical & Electronic Engineering

Institute: **Bangladesh University of Engineering & Technology (BUET), Dhaka, Bangladesh**

Year: October 1993

Position: 21st (Marks: 73.9%)

PROFESSIONAL EXPERINECE

TEACHING EXPERIENCE

| Position | Organization | Duration |
|------------------------------|------------------------------------------------------|---------------------------------|
| Professor (EEE) | University of Liberal Arts Bangladesh | 1 January 2019 to 17 April 2-24 |
| Professor (ECE) | East West University, Dhaka, Bangladesh | 29 July 2013 to 23 Dec 2018 |
| Associate Professor (ECE) | East West University, Dhaka, Bangladesh | 4 May 2008 to 28 July 2013 |
| Assistant Professor (EEE) | Chittagong University of Engineering & Technology | 29 June, 2000 to 3 May, 2008 |
| Lecturer (EEE) | Chittagong University of Engineering & Technology | 27 April, 1994 to 28 June, 2000 |

ADMINISTRATIVE EXPERIENCE

| Position | Organization | Duration |
|-------------------|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|
| Dean | School of Science and Engineering University of Liberal Arts Bangladesh | 1 June 2021 to 17 April 2-24 |
| Chairman | Disciplinary Committee University of Liberal Arts Bangladesh | 9 January 2022 to present |
| Member | Finance Committee, University of Liberal Arts Bangladesh | 12 April 2022 to present |
| Chairman | Purchase Committee University of Liberal Arts Bangladesh | 17 April 2022 to present |
| Member | Quality Assurance Committee, University of Liberal Arts Bangladesh | 1 June 2021 to present |
| Member | Ethical Review Committee University of Liberal Arts Bangladesh | |
| Head | Department of Electrical and Electronic Engineering University of Liberal Arts Bangladesh | 1 January 2020 to present |
| Head | Department of Electronics and Telecommunication Engineering, University of Liberal Arts Bangladesh | 1 January 2019 to 31 st December 2019 |
| Chairperson | Department of Electronics and Communications Engineering, East West University, Dhaka | 09 February 2016 to 23 Dec 2018 |
| Dean | Faculty of Sciences and Engineering, East West University | 17 February 2013 to 6 September 2014 |
| Chairperson | Department of Electronics and Communications Engineering, East West University, Dhaka | 24 December 2008 to 3 April 2012 |
| Head | Department of Electrical & Electronic Engineering, Chittagong University of Engineering & Technology, Bangladesh | 1 June 2005 to 27 October 2005 |
| Moderator | Debating Society, Chittagong University of Engineering & Technology, Bangladesh | 10 April 2004 to 27 October 2005 |
| Provost | Ladies Hall, Chittagong University of Engineering & Technology, Bangladesh | 31 December 2003 to 27 October 2005 |
| Assistant Provost | Mohammad Shah Hall, Chittagong University of Engineering & Technology, Bangladesh | 28 May 1995 to 27 May 1997 |

MEMBERSHIP & COMMUNITY SERVICES

Membership:

1. Senior Member, IEEE (USA) (Member Number: 41337650)
2. Member, Institute of Engineers, Bangladesh (M/18112)

Reviewer of Journals, Track Chair and Session Chair in International Conferences:

1. MDPI Energies (Journal)
2. **Reviewer:** Radio Engineering Journal, International Journal of Renewable Energy Research
3. **Editorial Board Member,** Journal of Electrical and Electronic Systems (USA)

4. **Reviewer**, 2019 IEEE International Conference on Power, Electrical, and Electronics and Industrial Applications (PEEIACON), Dhaka, Bangladesh
5. **ICCIT 2020**
6. **ICCIT 2019**
7. **ICAEE 2019**
8. **STI4 2022**
9. **ICECIT 2021**
10. **ACMI 2021**

International Conference Committee:

1. **Plenary Speaker at REEPE 2021**, <http://reepe.mpei.ru/IEEE/Pages/default.aspx>
2. **Panel discussant at ICCIT 2020**, <http://iccit.org.bd/2020/>
3. **Track Chair, ICAICT 2020**, <http://icaict.uiu.ac.bd/technical-program-committee/>
4. **Member, Advisory Committee**, ICACE 2019 held at Independent University Bangladesh, Dhaka.
5. **Member, Technical Program Committee**, IEEE TENSYP 2020 held at Dhaka.

Technical Session Chair in International Conferences:

1. ICAEES 2016 (Putrajaya, Malaysia)
2. ICAEE 2019 (Independent University Bangladesh, Dhaka, Bangladesh)
3. ICCIT 2019 (Southeast University, Dhaka, Bangladesh)
4. IEEE TENSYP 2020, Dhaka Bangladesh (virtual).
5. ICAICT 2020, UIU, Dhaka, Bangladesh (virtual)

External Member:

1. **External Member**, Faculty Selection Committee, Dept of EEE, Chittagong University of Engineering and Technology (CUET)
2. **External Member**, Faculty Selection Committee, Dept of EEE, Independent University, Bangladesh
3. **External Member**, M.Sc Eng. Thesis, Dept. of EEE, BUET
4. **Former External Member, Academic Committee**, Dept. of ETE, Chittagong University of Engineering and Technology (CUET)
5. **Former Member, 4th Level Examination Committee**, Dept of EEE, Chittagong University of Engineering and Technology (CUET)

Accreditation Expertise and Activities:

1. **Panel Member**, Visiting Team, BAETE (Board of Accreditation for Engineering and Technical Education), IEB, Dhaka.
2. Contributed as a **Chair of Visiting Team of BAETE** for Accreditation of EEE and ETE programs in Bangladesh.
3. Team Leader, External Peer Review Team, EEE Dept, Bangladesh University of Business and Technology, Mirpur Dhaka, Bangladesh.

SUPERVISION OF UNDEGRADUATE STUDENTS

Supervised more than 130 undergraduate Final year students in completing the thesis/project works, which is a partial requirement of their B.Sc. Eng. degree

SUPERVISION OF POSTGRADUATE STUDENTS

M.Sc Engg.: 16
PhD: 01

COMMITTEE MEMBERS (Former)

| Committee | Duration |
|-----------------------------------------------------------------------------|---------------------------------------|
| Member, Finance Committee, East West University, Dhaka | 19 May 2018 to 23 Dec 2018 |
| Convener, Self-Assessment Committee, ECE Dept., East West University, Dhaka | 06 December 2016 to 23 Dec 2018 |
| Member Syndicate, East West University, Dhaka | 17 February 2013 to 06 September 2014 |
| Member Academic Council, East West University, Dhaka | 24 Dec 2008 to 23 Dec 2018 |
| Member Academic Council, CUET, Chittagong | 1 June 2005 to 27 October 2005 |

ATTENDED WEBINAR/WORKSHOP ON OUTCOME BASED EDUCATION

1. Workshop on “Preparation for Outcome Based Accreditation,” 12 December 2017, IEB, Dhaka, Resource person: SITI HAWA HAMZAH
2. BAETE Workshop for Program Evaluators, 19 October 2017, IEB, Dhaka, Resource person: Professor Dr. Kai Sang LOCK
3. WORKSHOP ON THE IMPLEMENTATION OF COMPLEX ENGINEERING PROBLEM SOLVING (WP) AND COMPLEX ENGINEERING ACTIVITIES (EA), 18-19 June 2019, Dhaka, Resource persons: SITI HAWA HAMZAH and LIEW CHIA PAO.
4. Training on “WRITING EFFECTIVE EVALUATION TEAM REPORTS FOR BAETE ACCREDITATION,” 1 August 2019, Dhaka, Resource person: Anisul Haque.
5. New Program Evaluator Training – Outcome Based Accreditation, 9 October 2019, IEB, Dhaka, Resource person: Megat Johari Megat Mohd Noor.
6. ASSOCIATE DIRECTOR (CIVIL ENGINEERING) EAD “Program Evaluator Training Program,” organized by BAETE, IEB, 8-11 February 2021 (Online).

7. "Orientation and discussion session on accreditation evaluation by program evaluators," 8-11 February 2021, Board of Accreditation for Engineering and Technical Education, IEB, Headquarter, Dhaka. (online).
8. "Online Learning- Beyond Test and Quizzes, Assessment Strategies that Facilitate Learning" Stephanie L. Moore, University of New Maxico, 28 July 2021 (Online), organized by US Embassy Dhaka.
9. "Orientation and discussion session on accreditation evaluation by program evaluators," 10-13 October 2021, Board o Accreditation for Engineering and Technical Education, IEB, Headquarter, Dhaka. (online).

AWARDS & HONOURS

- **BANGLADESH EDUCATION LEADERSHIP AWARD 2019** - "Best Professor in Telecommunication Engineering Studies" from World Education Congress.
- **JSPS Postdoctoral Fellowship (2005-2007), Japan.**
- **Scholarship, Ministry of Education, Cultural, Sports, Science and Technology, Japan.**
- **Yuasa Foundation Scholarship, Japan.**

COMPUTER SKILL

Programming Language: FORTRAN, C, Assembly Language

Packages: Matlab, PSPICE, Silvaco, CST Microwave studio, MS-office, Microcal ORIGIN, wxAMPS, SCAPS etc.

VISITED COUNTRIES

Australia, China, India, Japan, KSA, Malaysia, South Korea, Thailand, UAE, UK and USA.

TEACHING STATEMENT

COURSES TAUGHT

Undergraduate

- 1) Electrical Circuits I and II (DC and AC circuits)
- 2) Electronic Circuits
- 3) Microprocessor and Interfacing
- 4) Digital Electronics
- 5) VLSI Technology
- 6) Power System Analysis
- 7) Electrical Power Transmission and Distribution
- 8) Microwave Engineering
- 9) Introduction to Nanotechnology
- 10) Renewable Energy Technology
- 11) Optoelectronics
- 12) Programming in C

Graduate

- 1) Microwave Engineering
- 2) VLSI Technology
- 3) Renewable Energy Technology

INTERESTED TO TEACH (Undergraduate level)

- 1) Electrical Circuits I and II (DC and AC circuits)
- 2) Power System Analysis
- 3) Electrical Power Transmission and Distribution
- 4) Microprocessor and Interfacing
- 5) Digital Electronics
- 6) Microwave Engineering
- 7) Renewable Energy Technology
- 8) Optoelectronics

INTERESTED TO TEACH (Graduate level)

- 1) VLSI Technology
- 2) Microwave Engineering
- 3) Renewable Energy Technology
- 4) Optoelectronics

CURRENT RESEARCH ACTIVITIES

The whole gamut of my research interests and activities encompass multidisciplinary domains/fields. During the course of my PhD and postdoctoral studies, I carried out research on plasma technology. I have been entirely working for Sustainable Clean Energy/Renewable Energy Harvesting, Multijunction Photovoltaic Cell Design, Emerging Cell materials, Green Hydrogen harvesting, Impacts of Electric Vehicles on the Environment and Power Grid.

Currently, my research projects involve the following focuses:

- Design and Simulation of High efficiency Multijunction Thin Film Solar Cells.
- Design and Simulation of High Efficiency Perovskite Solar Cells.
- Design of IoT-Based Energy Saving Schemes for Industry and Residential Area.
- Study of Positive Impacts of Electric Vehicles on Environment and Economy.
- EV incubation
- Environmental impacts of PV and fossil fuel based Captive power system in Bangladesh.

REFERENCES

1. Prof. Yasunori TANAKA, Dr. Eng

Professor

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2. Prof. Takayuki WATANABE, PhD

Department of Chemical Engineering

Kyushu University Japan

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3. Prof. Dr. Milan Kumar Bhattacharjee

Treasurer

University of Liberal Arts Bangladesh

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4. Prof. Dr. Mohammad Rafiqul Alam

Vice Chancellor, Chittagong University of Engineering and Technology

Chittagong 4349, Bangladesh

Email: vc@cuet.ac.bd, mra_cuetee@yahoo.com

Phone: +8801819345077

LIST OF PUBLICATIONS

BOOK CHAPTER

[2] S. Hasan, M. Rasheduzzaman, and **M. M. Mofazzal Hossain**, “Consequences of Lockdown due to COVID-19 on the Electricity Generation and Environment in South Asia”, Electricity Access, Decarbonization and Integration of Renewables, Springer VS, Wiesbaden, 03 November 2022. doi: https://doi.org/10.1007/978-3-658-38215-5_6.

[1] **M. Mofazzal Hossain**, Takayuki Watanabe, “Thermal Treatment of Granulated Particles by

Induction Thermal Plasma,” ISBN 978-953-307-569-3, Edited: Marco Aurélio dos Santos Bernardes, *InTech Publisher*, September 2011.

JOURNAL

- [33] Md. Ashraful Islam, Atik Jawad, Nahid Akhter Jahan and **M. Mofazzal Hossain**, “Outstanding Conversion Efficiency of 38.39% from a Perovskite/Cigs Tandem Pv Cell: A Synergic Optimization Through Computational Modeling,” *Heliyon*, vol.9, Issue 10, p. E20558, (2023).
- [32] Tasmin Kamal Tulka, Nowshin Alam, Md Akhtaruzzaman, K. Sobayel, **M. Mofazzal Hossain**, “Optimization of a high-performance lead-free cesium-based inorganic perovskite solar cell through numerical approach,” *Heliyon*, vol.8, Issue 1, p. e11719, (2022).
- [31] T. K. Tulka, N. Alam, K. M. Elme, and **M. Mofazzal Hossain**, “Efficiency Enhancement of an Ultra-Thin Eco-Friendly All-Inorganic CsGeI₃ Perovskite Photovoltaic Cell using SCAPS-1D,” *Appl. Sol. Energy* **58**, 28–39 (2022). doi: <https://doi.org/10.3103/S0003701X22010194>
- [30] Mobasshir Mahbub, **M. Mofazzal Hossain** and Md. Shamrat Apu Gazi, “Cloud-Enabled IoT-Based Embedded System and Software for Intelligent Indoor Lighting, Ventilation, Early Stage Fire Detection and Prevention,” *Computer Network*, vol. 184 p. 107673, Jan (2021).
- [29] Mobasshir Mahbub, **M. Mofazzal Hossain** and Md. Shamrat Apu Gazi, “IoT-Cognizant cloud-assisted energy efficient embedded system for indoor intelligent lighting, air quality monitoring, and ventilation,” *Internet of Things*, vol. 11, p.100266 (2020).
- [28] Nahid A. Jahan and **M. Mofazzal Hossain**, “Efficiency enhancement of p-i-n solar cell embedding quantum wires in the intrinsic layer,” *ASTESJ*, vol. 5, issue.3, pp.540-546 (2020).
- [27] **Hossain M. Mofazzal**, M. S. A. Gazi, M. Mahbub, A. A. P. Sayed, S. Kanaya and M. Altaf-Ul-Amin, “On the determination of important plants for ayurvedic formulas in Bangladesh using unsupervised machine learning approach,” *Academia Journal of Medicinal Plants* 6(1): 036-041, January 2019, DOI: 10.15413/ajmp.2019.0106.
- [26] Nahid A. Jahan, Md. Minhaz Ul Karim and M. Mofazzal Hossain, “A High Efficiency Ultra Thin (1.8 μm) CdS/CdTe p-i-n Solar Cell with CdTe and Si as BSF layer,” *ASTESJ*, vol.3, pp-213-217 (2018).
- [25] R. Islam, M. M. Uddin, **M. Mofazzal Hossain** and M. A. Matin, “Design and Performance Analysis of Depletion-Mode InSb Quantum-Well Field-Effect Transistor for Logic Applications”, *J. of Molecular and Engineering Materials* vol. 5, No. 3 p.1750006, (2017).
- [24] M. T Rahman and **M. Mofazzal Hossain**, “A time-dependent model of pulse-driven radio frequency capacitively coupled collisional plasma sheath,” *J. Phys. of Plasmas*, vol.24, p. 013516 (2017).
- [23] Fahmida Azmi, **M. Mofazzal Hossain**, “On the Determination of Levelized Cost of Electricity of Wind Energy in the Coastal Areas of Bangladesh,” *J. Electrical and Electronic Engineering*, vol. 5(2), pp. 74-79 (2017), (doi: 10.11648/j.jeee.20170502.18).

- [22] M. Rafiqul Alam, Feroza Begum, Quazi Delwar Hossain, **M. Mofazzal Hossain**, "Effects of carrier gas flow-rate and oxygen admixture ratio on particle properties in Ar-O₂ plasma," *International Journal of Materials Science and Applications*, vol. 3 Issue 2, pp. 14-19 (2014).
- [21] **M. Mofazzal Hossain**, M. Rafiqul Alam, and Takayuki Watanabe, "Thermal Treatment of Al₂O₃, MgO, and CeO₂ Granulated Powders by Induction Thermal Plasma: A Numerical Approach," *Japanese Journal of Applied Physics* vol. 52 (2013).
- [20] Sakib M. Muhtadi, S. M. Sajjad Hossain¹, Ashraful G. Bhuiyan, K. Sugita, A. Hashimoto, A. Yamamoto and **M. Mofazzal Hossain**, "DC and RF performance of an In_{0.1}Ga_{0.9}N/InN high electron mobility transistor," *Phys. Status Solidi C* vol. 8, No. 7–8, pp. 2292–2295 (2011).
- [19] N. Choudhury, M. Q. Islam, I. Murshed, M. A. Matin, Z. Rahman, **M M Hossain**, "A Study and Design of Direct Sequence Code Division Multiple Access (DS-CDMA) Transceiver," *Engineering -e-Transaction (ISSN 1823-6379)*, vol. 4, No.1 (2009). [Malaysia]
- [18] **M. Mofazzal Hossain**, Yaochun Yao and Takayuki Watanabe "A Numerical Study of Plasma-Particle Heat Transfer Dynamics in Induction Thermal Plasmas for Glassification," *IEEJ Transactions on Electrical and Electronic Engineering*, Volume 4 Issue 4, pp. 504 – 509, 2009. Japan.
- [17] **M. Mofazzal Hossain**, Yaochun Yao, Takayuki Watanabe, Fuji Funabiki and Tetsuji Yano, "In-flight thermal treatment of soda-lime-silica glass powders for glass production by argon–oxygen induction thermal plasmas," *Chemical Engineering Journal*, vol 150, pp. 561-568, 2009. [Elsevier]
- [16] Yaochun Yao, **M. Mofazzal. Hossain**, T. Watanabe, "Numerical and experimental investigation on the in-flight melting behavior of granulated powders in induction thermal plasmas," *Plasma Science and Technology*, vol 11, No.1, Feb 2009. [IOP, UK]
- [15] Y. Yao, **M. M. Hossain**, T. Watanabe, T. Matsuura, F. Funabiki, and T. Yano, "A multi-phase AC arc discharge and its application in in-flight thermal treatment of raw glass powders," *Chemical Engineering Journal*, vol. 139, pp. 390-397, 2008. [Elsevier]
- [14] Yao Yaochun, **Hossain M M**, Watanabe T, Funabiki F, Yano T, "Application of in-flight melting technology by RF induction thermal plasmas to glass production, ", *Plasma Science and Technology*, vol. 10, No.3 , 2008. [IOP, UK]
- [13] **M. Mofazzal Hossain**, Yaochun Yao, Takayuki Watanabe, "A numerical analysis of plasma-particle heat exchange during in-flight treatment of granulated powders by argon-oxygen induction thermal plasmas," *Thin Solid Films*, vol. 516, pp. 6634-6639, 2008. [Elsevier]
- [12] Yaochun Yao, **M. Mofazzal Hossain**, Takayuki Watanabe, Tomoyuki Tsujimura, Fuji Funabiki, Tetsuji Yano, "Effects of Feed Rate and Particle Size on the In-flight Melting Behavior of Granulated Powders in Induction Thermal Plasmas," *Thin Solid Films*, vol. 516, pp. 6622-6627, 2008. [Elsevier]

- [11] Yaochun Yao, **Md. M. Hossain**, Yasuko Oyamatsu, Takayuki Watanabe, Fuji Funabiki and Tetsuji Yano “In-flight Melting of Granulated Powders in Thermal Plasmas for Glass Production,” *Trans. Materials Research Society of Japan*, vol 32, pp. 509-512, 2007.
- [10] **M. M. Hossain**, Y. Yao, Y. Oyamatsu, T. Watanabe, F. Funabiki and T. Yano, “Determination of the Melting Mechanism of Granular Powders for Vitrification by Argon-Oxygen Induction Thermal Plasmas”, *WSEAS Trans. on Heat and Mass Transfer*, vol. 1, Issue 6, pp.625-631, 2006.
- [9] **M. M. Hossain**, Y. Tanaka and T. Sakuta, “Transient Nature of Argon and Molecular Gas-Seeded Argon Inductive Thermal Plasmas in Pulse Amplitude Modulation Approach”, *Trans. IEE Japan*, vol.123, pp.1333-1339, 2003.
- [8] **M. M. Hossain**, Y. Tanaka and T. Sakuta, “Dynamic Responses of Ar-CO₂ and Ar-N₂ Induction Thermal Plasmas in Pulse Modulation Approach”, *Thin Solid Films*, vol. 435, pp.19-26, 2003. [Elsevier]
- [7] **M. M. Hossain**, Y. Tanaka and T. Sakuta, “Extinguishing Phenomenon and Critical Discharge Boundaries of Argon and Molecular Gas-Seeded Argon Pulse Modulated Induction Thermal Plasmas”, *Plasma Sources Sci. Technol.*, vol. 12, pp. 22-29, 2002. [IOP, UK]
- [6] **M. M. Hossain**, Y. Tanaka and T. Sakuta, “Time Dependent Analysis of Electromagnetic Fields in Inductively Coupled Thermal Plasma”, *Journal of the Japan Society of Applied Electromagnetics and Mechanics*, vol. 14, pp. 121-128, 2003.
- [5] **M. M. Hossain**, Y. Tanaka and T. Sakuta, “Particle Concentrations and Transport Properties of a Partially Ionized Argon Plasma in a Two-Temperature Reaction Kinetic Approach”, *J. Phys. D: Appl. Phys.*, vol. 35, pp. 529-35, March, 2002. [IOP, UK]
- [4] **M. M. Hossain**, Y. Hashimoto, Y. Tanaka, K. C Paul and T. Sakuta, “A Comparative Study of Transient Characteristics of Argon and Hydrogenated-Argon Pulse-Modulated Induction Thermal Plasma”, *IEEE Trans. on Plasma Sci.*, vol. 30, Issue: 1, pp. 327-337, Feb. 2002. [IEEE, USA]
- [3] K.C Paul **M. M. Hossain** Y. Hashimoto Y. Tanaka and T. Sakuta, “Responses of a Long-Coil Pulse-Modulated Induction Plasma” *IEEE Trans. on Plasma Sci.*, vol. 29, no.2, pp.326-334, April 2001. [IEEE, USA].
- [2] **M. M Hossain**, K. C Paul, Y. Tanaka, T. Sakuta and T. Ishigaki, “Prediction of Operating Region of Pulse-Modulated Radio Frequency Inductively Coupled Thermal Plasma,” *J. Phy. D: Appl. Phys.*, vol 33, No. 15, pp. 1843-1853, 2000. [IOP, UK]
- [1] T. Sakuta, Y. Tanaka, K. C Paul, **M. M. Hossain** and T. Ishighaki, “Non-Equilibrium Effects in Pulse Modulated Induction Thermal Plasma for Advanced Processing” *Trans. Materials Research Society, Japan*, Vol.25, No.1, pp 35-38, March 2000.

International Conference Publications

- [54] Alfatha; Abu Obayed; Jawad; Atik; **Hossain; M. Mofazzal**, “Feasibility Study of a Rooftop Solar System on ULAB Permanent Campus Building,” *2023 International Conference on Advances in Electronics, Communication, Computing and Intelligent Information Systems (ICAECIS)*, 19-21 April 2023, BIT, Bangalore, India. [IEEE Xplore]

- [53] Mohammad Ariful Islam Rafi; Moshir Rahman Sohan; Atik Jawad; Hasnain Rabbi Sourid and **M. Mofazzal Hossain**, "Sound Pollution Monitoring System and Awareness Creation in Modern Cities: A Case Study," *2023 International Conference on Advances in Electronics, Communication, Computing and Intelligent Information Systems (ICAECIS)*, 19-21 April 2023, BIT, Bangalore, India. [IEEE Xplore]
- [52] M. Rasheduzzaman, A. B. M. S. U. Doulah, Ramit Kumar Sadhukhan and **M. Mofazzal Hossain**, "Environmental Impacts of ICEVs and BEVs in Dhaka City based on Vehicle Fleet Modelling and Machine Learning Technique," ICEPECC-2023 [Accepted]
- [51] Alnur Khan Mission, Riaz Ahmmad, Tasmin Kamal Tulka and **M. Mofazzal Hossain**, "Numerical Simulation and Optimization of CsSnI₃ Perovskite PV Cell Using SCAPS-1D," ICEPECC-2023 [Accepted]
- [50] Md Ashraful Islam, Nahid Akhter Jahan, **M. Mofazzal Hossain**, "A Lead-Free All-Inorganic CS₂SnI₆ Based Ultra-Thin Perovskite Solar Cell Optimized using SCAPS-1D Simulator," *2022 International Conference and Utility Exhibition on Energy, Environment and Climate Change (ICUE)*, 26-28 October 2022, Pattaya, Thailand. [IEEE Xplore]
- [49] Tajreen Ferdoush, Chaity Saha, Mahdee Nafis and **M. Mofazzal Hossain**, "Optimization and Performance Improvement of CsSnGeI₃ All-Inorganic Lead-Free Thin-Film Perovskite Solar Cell through Numerical Simulation," *2022 International Conference and Utility Exhibition on Energy, Environment and Climate Change (ICUE)*, 26-28 October 2022, Pattaya, Thailand. [IEEE Xplore]
- [48] **M. Mofazzal Hossain**, Nabila Jahan, Rayhan Ul Hossain, "Simulation and optimization of a highly efficient ZnO/Cu₂O/CdS/CdTe solar cell using SCAPS-1D," *2022 International Conference on Advancement in Electrical and Electronic Engineering (ICAEEE)*, 24-26 February 2022, DUET, Gazipur, Bangladesh. [IEEE Xplore]
- [47] Fahim Adel Akib, Nurujjaman Shawn, Sajjad Mostafa, Mirza Rasheduzzaman, **M. Mofazzal Hossain**, "Impacts of Electric Vehicle for Sustainable Transportation in Dhaka City," *2022 International Conference on Advancement in Electrical and Electronic Engineering (ICAEEE)*, 24-26 February 2022, DUET, Gazipur, Bangladesh. [IEEE Xplore]
- [46] Shameem Hasan, Mirza Rasheduzzaman, **M. Mofazzal Hossain**, "Impacts of COVID-19 on the Electrical Power Dynamics and Environment of Bangladesh," *IEEE REEPE 2021*, Moscow, Russia, 11-3 March 2021. [IEEE Xplore].
- [45] Md. Manzurul Hasan, Nahid Akhter Jahan and **M. Mofazzal Hossain**, "Thickness and Doping Optimization of CdS/CIGS P-i-N Photovoltaic Cell: Envisioned for Enhanced Conversion Efficiency," *Proc. EICT 2019*, Khulna, Bangladesh, 20-22 December 2019. [IEEE Xplore].
- [44] Md. Manzurul Hasan, Nahid Akhter Jahan and **M. Mofazzal Hossain**, "Enhancement of Conversion Efficiency of CdS-CdTe Photovoltaic Cell Sandwiching Intrinsic CdTe Layer between Window and Absorber Layers," *Proc. ICCIT 2019*, Dhaka, Bangladesh, 19-21 December, 2019. [IEEE Xplore].
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