Dr. Engr. Imran Khan

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NAME	POSITION
Dr. Engr. Imran Khan	**Associate Professor**

EDUCATION

INSTITUTION & LOCATION	DEGREE	YEAR	FIELD OF STUDY
University of Otago, Dunedin, **New Zealand**	Ph.D.	2019	Energy & Sustainability
Khulna University of Engineering and Technology, **Bangladesh** & University of Ottawa, **Canada** (Jointly)	M.Sc. Engg.	2014	ECE
Khulna University of Engineering and Technology, **Bangladesh**	B.Sc. Engg.	2008	ECE

A. Personal Statement & Skills

I am an Associate Professor and researcher in the energy management and sustainability field with a cross-disciplinary approach, dedicated to investigating the complexities of environment, society, economy, and the transition toward a sustainable, low-carbon future. My primary focus is on unraveling the intricate interactions among technology, society, the environment, and the economy concerning climate change and sustainability. By delving deeply into these dynamics, I aim to provide insightful foundations for the development of innovative policies concerning resource efficiency, combating climate change, enhancing energy access, and fostering resilience.

Key Skills (but not limited to)

Outlined below are some of my key skills, substantiated by the provided research publications:

- ***Sustainability Assessment:*** Applied sustainability frameworks to assess the sustainability of electricity generation.
- ***Renewable Energy and Agriculture:*** Assessed the impacts of renewable energy solutions in agriculture such as Agrivoltaic technology.
- ***GHG Emission Assessment:*** Conducted comprehensive assessments of greenhouse gas emissions in the electricity sectors of both New Zealand and Bangladesh.
- ***Decarbonization Potentiality Assessment:*** Employed time-varying carbon intensity analysis to investigate the emission mitigation opportunities for both renewable and fossil fuel-dominated energy sectors.

- ***Statistical Data (Quantitative) Analysis:*** Proficient in utilizing SPSS, Excel, and MATLAB for quantitative data analysis, demonstrated during Ph.D. research.
- ***Big Data Handling:*** Proficiently managed annual half-hourly electricity generation data for both New Zealand, primarily characterized by renewable energy sources, and Bangladesh, dominated by fossil fuels, utilizing Excel.
- ***Survey for Data Collection:*** Conducted in-person surveys in Bangladesh to collect household electricity-related data as part of Ph.D. research.
- ***Qualitative Data Analysis:*** Collected and analyzed energy-use-related data through interviews with the Rohingya community, a vulnerable refugee group in Bangladesh.
- ***Demand-Side Management:*** Evaluated various demand-side management schemes for both New Zealand and Bangladesh.

Expert Keywords

- Energy sustainability in the developing world
- Sustainable energy development
- Electricity and GHG emissions
- Energy efficiency
- Electricity generation sustainability assessment
- Renewable energy application to energy poor
- Climate change and sustainability
- Agrivoltaic/Agrophotovoltaic
- Household energy demand analysis
- Household energy-use profile
- Demand-side management
- Energy access in developing countries
- Prosumerism and solar home system
- Waste to energy in developing countries

B. Positions and Honors

Positions and Employment

Academic:

- Sep. 2019 - Present: ***Associate Professor***, Department of Electrical and Electronic Engineering, Jashore University of Science and Technology, Jashore, Bangladesh.
- Feb. 2012 – Sep. 2019: ***Lecturer & Assistant Professor***, Department of Electrical and Electronic Engineering, Jashore University of Science and Technology, Jashore, Bangladesh.
- Apr. 2021 – Mar. 2022: ***Postdoctoral Researcher*** *(off-site)*, Prince of Songkla University, Thailand
- Oct. 2011 – Feb. 2012: ***Lecturer***, Department of Electrical and Electronic Engineering, University of Information, Technology & Sciences, Dhaka, Bangladesh.
- May. 2008 – Jul. 2008: ***Lecturer***, Department of Electronics and Telecommunication Engineering, Daffodil International University, Dhaka, Bangladesh
- **Other:** Aug. 2008 – Oct. 2009: ***Transmission Jr. Engineer***, Banglalink (Orascom Telecom Ltd.), Dhaka, Bangladesh.

Administrative:

- Mar. 2023 – Present: ***Chairman of the Department***, Department of Electrical and Electronic Engineering, Jashore University of Science and Technology, Jashore, Bangladesh.
- Dec. 2022 – Present: ***Elected Academic Council Member***, Jashore University of Science and Technology, Jashore, Bangladesh.
- Jan. 2020 – Aug. 2024: ***Director***, ICT Cell, Jashore University of Science and Technology, Jashore, Bangladesh.
- Feb. 2012 – Oct. 2015: ***Founding Chairman of the Department***, Department of Electrical and Electronic Engineering, Jashore University of Science and Technology, Jashore, Bangladesh.
- Feb. 2014 - Oct. 2015: ***Adviser***, Research Cell (International Collaboration), Jashore University of Science and Technology, Jashore, Bangladesh.
- Other: ***Dean*** *(In Charge)*, Faculty of Engineering and Technology, Jashore University of Science and Technology, Jashore, Bangladesh.

Awards:

- Apr. 2021 – Mar. 2022: Prince of Songkla University President Scholarship (For Postdoc).
- Dec. 2018 - Feb. 2019: University of Otago Doctoral Publishing Bursary.
- Nov. 2018: Otago Energy Research Centre Travel Fund.
- May 2017: Otago Energy Research Centre Fund for fieldwork.
- Nov. 2015 - Oct. 2018: University of Otago Doctoral Scholarship.
- Feb. 2012: *University Gold Medal* Award for securing first class first position at the undergraduate level of study.
- Sep. 2010 - Apr. 2011: Research Assistant, University of Ottawa, Canada.
- Sep. 2009 – Jun. 2010: EU Scholarship.

Other Experience (Voluntary/Social):

- Jan-2018 to Dec-2018: **President**, Bangladeshi Students' Association, University of Otago, New Zealand.
- Jan-2017 to Dec-2017: **General Secretary**, Bangladeshi Students' Association, University of Otago, New Zealand.
- Jan-2014 to Dec-2014: **Joint Secretary**, JUST Teachers' Association-2014 (First Executive Committee of JUSTTA).

C. Research Grants Received

- FY 2023-2024: Identifying technical problem types and efficiency of fault detection schemes of solar power plants in Bangladesh. Amount: **BDT 385,000**; Funded by the University Grant Commission and Jashore University of Science and Technology. Role: *Principal Investigator*.
- FY 2022-2023: Cyber-Physical Systems Lab Establishment research fund. Amount: **BDT 1 million**; Funded by ICT Ministry, Government of Bangladesh. Role: *Principal Investigator*.
- FY 2022-2023: Agrophotovoltaic: identifying the prospects and technical challenges. Amount: **BDT 360,000**; Funded by the University Grant Commission and Jashore University of Science and Technology. Role: *Principal Investigator*.
- FY 2021-2022: IoT-based electrical peak demand and power quality management. Amount: **BDT 450,000**; Funded by the University Grant Commission and Jashore University of Science and Technology. Role: *Principal Investigator*.

- FY 2020-2021: Electrical peak demand reduction: A dynamic load management system for JUST campus. Amount: **BDT 240,000**; Funded by the University Grant Commission and Jashore University of Science and Technology. Role: *Principal Investigator*.

Note: BDT – Bangladesh Currency.

D. Recognitions/Journal Editor/Reviewer/Supervision

World's top 2% scientists for 2019, 2020, 2021, 2022 & 2023

Dr. Khan has appeared in the top 2% list of the world's scientists for research impact based on the most recent single-year and career-long achievement for five consecutive years: 2019, 2020, 2021, 2022, and 2023. (Published by the Stanford University, USA & Elsevier).

[Source: https://elsevier.digitalcommonsdata.com/datasets/btchxktzyw/7*]*

Journal Associate Editor

Journal: Discover Applied Sciences published by *Springer Nature* (previously known as SN Applied Sciences), Indexed in Scopus & WoS
Discipline: Engineering
Journal Website: https://link.springer.com/journal/42452

Special Issue Editor

Engineering Topical Collection (Special Issue): *Sustainable Energy Trends in the Developing Economies*
Journal: *Discover Applied Sciences* (Springer Nature)
For further Details: https://link.springer.com/collections/djgiihddda

Associate Fellow of BAS

Dr. Khan has been elected as the Associated Fellow of the Bangladesh Academy of Sciences [BAS] (https://www.bas.org.bd/). This fellowship is awarded to young scientists of exceptional talent and promise, who have contributed to science and technology in respective fields.

Reviewer, Bangladesh Energy and Power Research Council

Dr. Khan is one of the reviewers of the Bangladesh Energy and Power Research Council (BEPRC). Only experts in the energy and power field can be the reviewer of BEPRC.

Journal Reviewer/Referee

Reviewed for:

- Applied Energy (Publisher: Elsevier) - Achieved ***Outstanding Reviewer*** recognition in 2017.
- Journal of Cleaner Production (Publisher: Elsevier) - Achieved ***Outstanding Reviewer*** recognition in 2018.
- Renewable Energy (Publisher: Elsevier) - Achieved ***Outstanding Reviewer*** recognition in 2018.
- Energy Conversion and Management (Publisher: Elsevier)
- Renewable & Sustainable Energy Reviews (Publisher: Elsevier)
- Energy Research & Social Science (Publisher: Elsevier)
- Energy and Buildings (Publisher: Elsevier)

- Energy Policy (Publisher: Elsevier)
- Journal of Building Engineering (Publisher: Elsevier)
- Sustainable Energy Technologies and Assessments (Publisher: Elsevier)
- International Journal of Electrical Power and Energy Systems (Publisher: Elsevier)
- Energy Reports (Publisher: Elsevier)
- Energy Strategy Reviews (Publisher: Elsevier)
- Sustainable Futures (Publisher: Elsevier)
- Environmental and Sustainability Indicators (Publisher: Elsevier)
- Energies (Publisher: MDPI)
- Sustainability (Publisher: MDPI)
- Energy, Sustainability and Society (Publisher: Springer Nature)
- Electrical Engineering (Publisher: Springer)
- Cogent Engineering (Publisher: Taylor & Francis)
- Critical Reviews in Environmental Science and Technology (Publisher: Taylor & Francis)
- International Journal of Global Warming (Publisher: Inderscience)
- The Open Environmental Research Journal (Publisher: Bentham Science)
- Clean Energy (Publisher: Oxford University Press)
- Atmosfera (Publisher: UNAM)
- Discover Applied Sciences (Publisher: Springer Nature)

Publons link (for reviewer verification): https://publons.com/researcher/1454016/imran-khan

Book Proposal/Book Chapter Reviewer/Referee

- Bio-energy related book (Publisher: Elsevier)
- Waste management-related book (Publisher: Elsevier)
- Book chapter (Publisher: CRC Press)
- Book chapter- Bio-energy related (Publisher: Elsevier)

Session Chair/Technical Co-Chair/Technical Member (IEEE International Conference)

- **Technical Committee Member**, *IEEE 6th International Conference on Electrical Engineering and Information & Communication Technology (ICEEICT)*, MIST, 02-04 May 2024, Dhaka, Bangladesh. (IEEE Conference ID: 62016).
- **Session Chair & Technical Co-Chair**, *IEEE 6th International Conference on Electrical Information and Communication Technology (EICT)*, KUET, 07-09 Dec 2023, Khulna, Bangladesh. (IEEE Conference ID: 61409X).

Invited Talk

- **Bosch Limited, India,** Topic: Energy Consumption Reduction through an Interdisciplinary Approach: The Energy Cultures Framework

Electronic Media Interview

- Connect the World's Top 2% Most Cited Bangladeshi Researcher- Dr. Imran Khan (Link: https://www.youtube.com/watch?v=SlJVKyh7IVo), 21 October 2022.

- Provide sufficient Funds for Research Laboratory Development in Universities-Suggestion to Science Ministry by Dr. Imran Khan. (Link: https://scientificbangladesh.com/provide-sufficient-funds-for-research-laboratory-development-in-universities-suggestion-to-science-ministry-by-dr-imran-khan/), 04 November 2022.

Researcher IDs

Web of Science Researcher ID: M-4093-2013
ORCID: 0000-0002-0716-4644
Scopus: Scopus Author ID: 55490939400
Google Scholar: https://scholar.google.co.nz/citations?user=O6DbHRoAAAAJ&hl=en **(Citation # 2148, h-index: 26, i10-index: 34, till 28th Oct 2024)**

Professional Membership

Member, The Institution of Engineers, Bangladesh (IEB).

Thesis Supervision

- Primary supervisor: Number of postgraduate thesis (Engineering): 2 (awarded).
- Primary supervisor: Number of undergraduate thesis (Engineering): 15 (awarded)

International Research Collaboration

- Edith Cowan University, 270 Joondalup Drive, WA-6027, Australia.
- Faculty of Environmental Management, Prince of Songkla University, Hat Yai, Songkhla 90112, Thailand.

E. Selected Peer-reviewed Publications

Book:

Imran Khan (2022). Renewable Energy and Sustainability: Prospects in the Developing Economies. 1st Edition, (***Elsevier)***, Available at: https://doi.org/10.1016/C2020-0-03238-X

PhD Thesis:

Imran Khan (2019). A Temporal Approach to Characterizing Electrical Peak Demand: Assessment of GHG Emissions at the Supply Side and Identification of Dominant Household Factors at the Demand Side. *Ph.D. Thesis, University of Otago, New Zealand*, Available at: http://hdl.handle.net/10523/9185

Journal Articles:

[1] Hasan M.M., Moznuzzaman M., Shaha A., **Khan I.** (2024). Enhancing energy efficiency in Bangladesh's readymade garment sector: the untapped potential of LED lighting retrofits, ***International Journal of Energy Sector Management*, Emerald Publishing Limited**, DOI: 10.1108/IJESM-05-2024-0009

[2] Tarequzzaman M., **Khan I**., Sahabuddin M., Al-Amin M. (2024). Strategic Pathways to Sustainable Energy: Carbon Emission Pinch Analysis for Bangladesh's Electricity Sector, ***J. Renewable Sustainable Energy,*** **American Institute of Physics**, Vol.16; doi: 10.1063/5.0179143

[3] Al-Amin M., Hassan M., **Khan I.** (2024). Unveiling mega-prosumers for sustainable electricity generation in a developing country with techno-economic and emission analysis, ***Journal of Cleaner Production,*** **Elsevier**. Vol. 437 (140747), Available at: https://doi.org/10.1016/j.jclepro.2024.140747. Journal rank: **Q1**.

[4] Hasan M.M., Baker A.A., **Khan I**. (2023). Is solar power an emergency solution to electricity access? Findings from the largest Rohingya refugee camps, ***Energy Research and Social Science*****. Elsevier**. In press (103071), pp.1-10. Available at: https://doi.org/10.1016/j.erss.2023.103071 Journal rank: **Q1**.

[5] Sahabuddin M., **Khan I**. (2023). Analysis of demand, generation, and emission for long-term sustainable power system planning using LEAP: The case of Bangladesh, ***Journal of Renewable and Sustainable Energy*****. American Institute of Physics**. Vol.15 (035503), pp.1-15. Available at: https://doi.org/10.1063/5.0149307

[6] Joy S.S. **Khan I.**, Swaraz A.M. (2023). A non-traditional Agrophotovoltaic installation and its impact on cereal crops: A case of the BRRI-33 rice variety in Bangladesh, ***Heliyon***. **Cell Press**. Vol.9 (e17824), pp.1-16. Available at: https://doi.org/10.1016/j.heliyon.2023.e17824 Journal rank: **Q1**.

[7] Rahman M.M., **Khan I**., Field D.L., Techato K., Alameh K. (2022). Powering agriculture: Present status, future potential, and challenges of renewable energy applications. ***Renewable Energy,*** **Elsevier**. Vol.188, pp. 731-749. Available at: https://doi.org/10.1016/j.renene.2022.02.065. Journal rank: **Q1**.

[8] Ahammed M.T., **Khan I**. (2022). Ensuring power quality and demand-side management through IoT-based smart meters in a developing country. ***Energy,*** **Elsevier**. Vol.250 (123747), pp. 1-19. Available at: https://doi.org/10.1016/j.energy.2022.123747 Journal rank: **Q1**.

[9] Ali M.Y, **Khan I**., Hassan M. (2022). Lighting - The way to reducing electrical energy demand in university buildings in Bangladesh**. FACTA UNIVERSITATIS Series Electronics and Energetics**, Publisher: University of Nis. Vol.35, No. 3, pp. 333-348. Available at: https://doi.org/10.2298/FUEE2203333A

[10] **Khan I**., Chowdhury S., Techato K. (2022) Waste to Energy in Developing Countries—A Rapid Review: Opportunities, Challenges, and Policies in Selected Countries of Sub-Saharan Africa and South Asia towards Sustainability. ***Sustainability,*** **MDPI.** Vol. 14(7),3740. Available at: https://doi.org/10.3390/su14073740

[11] Rahman M.M., **Khan I**., Alameh K. (2021). Potential measurement techniques for photovoltaic module failure diagnosis: A review. ***Renewable and Sustainable Energy Reviews,*** **Elsevier**. Vol.151, pp. 1-17. Available at: https://doi.org/10.1016/j.rser.2021.111532. Journal rank: **Q1**.

[12] Saim M.A., **Khan I**. (2021). Problematizing solar energy in Bangladesh: Benefits, burdens, and electricity access through solar home systems in remote islands, ***Energy Research and Social Science*****. Elsevier**. Vol.74 (101969), pp.1-12. Available at: https://doi.org/10.1016/j.erss.2021.101969 Journal rank: **Q1**.

[13] **Khan I**. (2021). A survey-based electricity demand profiling method for developing countries: The case of urban households in Bangladesh, ***Journal of Building Engineering*****. Elsevier**. Vol.42 (102507), pp.1-9. Available at: https://doi.org/10.1016/j.jobe.2021.102507, Journal rank: **Q1**.

[14] **Khan I**. (2021). Factors dominating peak electricity demand in Bangladeshi urban households: an assessment through the energy cultures framework, ***Energy Sources, Part B:***

Economics, Planning, and Policy**. Taylor & Francis**. Available at: https://doi.org/10.1080/15567249.2021.1909671

[15] **Khan I**., Jack M.W., Stephenson J. (2021). Dominant factors for targeted demand side management—An alternate approach for residential demand profiling in developing countries, ***Sustainable Cities and Society*****. Elsevier**. Vol.67, pp.1-17. Available at: https://doi.org/10.1016/j.scs.2020.102693 Journal rank: **Q1**.

[16] **Khan I**., Sahabuddin M. (2021). COVID-19 pandemic, lockdown, and consequences for a fossil fuel-dominated electricity system, ***AIP Advances*****. American Institute of Physics**. Vol.11 (5), pp.1-15. Available at: https://doi.org/10.1063/5.0050551

[17] Kongklaew C., Phoungthong K., Prabpayak C., Chowdhury M.S., **Khan I**., Yuangyai N., Yuangyai C., Techato K. (2021) Barriers to Electric Vehicle Adoption in Thailand. ***Sustainability*****, MDPI.** Vol. 13(22),12839. Available at: https://doi.org/10.3390/su132212839

[18] **Khan I**. (2020). Waste to biogas through anaerobic digestion: Hydrogen production potential in the developing world - A case of Bangladesh. ***International Journal of Hydrogen Energy*****, Elsevier**. Vol.45, pp.15951-15962. Available at: https://doi.org/10.1016/j.ijhydene.2020.04.038. Journal rank: **Q1**.

[19] **Khan I**. (2020). Impacts of energy decentralization viewed through the lens of the energy cultures framework: Solar home systems in the developing economies. ***Renewable and Sustainable Energy Reviews*****, Elsevier**. Vol.119, pp. 1-11. Available at: https://doi.org/10.1016/j.rser.2019.109576. Journal rank: **Q1**.

[20] **Khan I**. (2020). Sustainability challenges for the south Asia growth quadrangle: A regional electricity generation sustainability assessment, ***Journal of Cleaner Production*****, Elsevier**. Vol. 243 (118639), pp.1-13. Available at: https://doi.org/10.1016/j.jclepro.2019.118639 Journal rank: **Q1**.

[21] **Khan I**. (2020). Data and method for assessing the sustainability of electricity generation sectors in the south Asia growth quadrangle. ***Data in Brief*****, Elsevier**. Vol.28 (104808), pp.1-8. Available at: https://doi.org/10.1016/j.dib.2019.104808 Journal rank: **Q1**.

[22] **Khan I**., Kabir Z. (2020). Waste-to-energy generation technologies and the developing economies: A multi-criteria analysis for sustainability assessment. ***Renewable Energy*****, Elsevier**. Vol.150, pp. 320-333. Available at: https://doi.org/10.1016/j.renene.2019.12.132. Journal rank: **Q1**.

[23] Kabir Z., **Khan I**. (2020). Environmental impact assessment of waste to energy projects in developing countries: General guidelines in the context of Bangladesh. ***Sustainable Energy Technologies and Assessments*****, Elsevier**. Vol.37 (100619), pp.1-13. Available at: https://doi.org/10.1016/j.seta.2019.100619. Journal rank: **Q1**.

[24] **Khan I**. (2020). Critiquing social impact assessments: Ornamentation or reality in the Bangladeshi electricity infrastructure sector? ***Energy Research & Social Science*****, Elsevier**. Vol.60 (101339), pp.1-8. Available at: https://doi.org/10.1016/j.erss.2019.101339. Journal rank: **Q1**.

[25] Swaraz A.M., Satter M.A., Rahman M.M., Asad M.A., **Khan I**., Amin M.Z. (2019). Bioethanol production potential in Bangladesh from wild date palm (*Phoenix sylvestris* Roxb.): An experimental proof, ***Industrial Corps & Products***, **Elsevier**. Vol. 139 (111507), pp. 1-9. Available at: https://doi.org/10.1016/j.indcrop.2019.111507 Journal rank: **Q1**.

[26] **Khan I**., Jack M.W., Stephenson J. (2019). Identifying residential daily electricity-use profiles through time-segmented regression analysis, ***Energy & Buildings*****. Elsevier**. Vol.194, pp.232-246. Available at: https://doi.org/10.1016/j.enbuild.2019.04.026 Journal rank: **Q1**.

[27] **Khan I**. (2019). Energy-saving behaviour as a demand-side management strategy in the developing world: the case of Bangladesh, ***International Journal of Energy and***

***Environmental Engineering*. Springer**. Vol.10, Issue 4, pp.493-510, Available at: https://doi.org/10.1007/s40095-019-0302-3 Journal rank: **Q2**.

[28] **Khan I**. (2019). Household factors and electrical peak demand: a review for further assessment. ***Advances in Building Energy Research*. Taylor & Francis**. Pp. 1-33. Available at: https://doi.org/10.1080/17512549.2019.1575770 Journal rank: **Q2**.

[29] **Khan I**. (2019). Power generation expansion plan and sustainability in a developing country: A multi-criteria decision analysis. ***Journal of Cleaner Production*. Elsevier**. Vol.220, pp.707-720. Available at: https://doi.org/10.1016/j.jclepro.2019.02.161. Journal rank: **Q1**.

[30] **Khan I**. (2019). Greenhouse gas emission accounting approaches in electricity generation systems: A review. ***Atmospheric Environment.* Elsevier**. Vol.200, pp.131–141. Available at: https://doi.org/10.1016/j.atmosenv.2018.12.005 Journal rank: **Q1**.

[31] **Khan I**. (2019). Temporal carbon intensity analysis: renewable versus fossil fuel dominated electricity systems. ***Energy Sources, Part A: Recovery, Utilization, and Environmental Effect.* Taylor & Francis**. Vol.41, pp.309–323. Available at: https://doi.org/10.1080/15567036.2018.1516013 Journal rank: **Q3**.

[32] **Khan I**. (2019). Drivers, enablers, and barriers to prosumerism in Bangladesh: A sustainable solution to energy poverty? ***Energy Research & Social Science*, Elsevier**. Vol.55, pp.82-92. Available at: https://doi.org/10.1016/j.erss.2019.04.019 Journal rank: **Q1**.

[33] **Khan I**. (2018). Importance of GHG emissions assessment in the electricity grid expansion towards a low-carbon future: a time-varying carbon intensity approach. ***Journal of Cleaner Production*. Elsevier**. Vol.196, pp.1587–1599. Available at: https://doi.org/10.1016/j.jclepro.2018.06.162 Journal rank: **Q1**.

[34] **Khan I**., Jack M.W., Stephenson J., (2018). Analysis of greenhouse gas emissions in electricity systems using time-varying carbon intensity. ***Journal of Cleaner Production*. Elsevier**. Vol.184, pp.1091–1101. Available at: https://doi.org/10.1016/j.jclepro.2018.02.309 Journal rank: **Q1**.

[35] **Khan I**., Halder P.K. (2016). Electrical Energy Conservation through Human Behavior Change: Perspective in Bangladesh. ***International Journal of Renewable Energy Research***. Vol. 6, No.1, pp.43-52. Journal rank: **Q3**.

[36] **Khan I**., Rahman M.M. (2016). Wavelength tunable TFGB based microwave sensor using surface plasmon resonance. ***Egyptian Journal of Remote Sensing and Space Science***. **Elsevier**. Vol.19, No.1, pp.1-6. Available at: https://doi.org/10.1016/j.ejrs.2015.11.002 Journal rank: **Q1**.

Book Chapters:

[1] **I. Khan**, Md. Sahabuddin (2022) Sustainability—Concept and its application in the energy sector. In: Renewable Energy and Sustainability: Prospects in the Developing Economies. ***Elsevier***, Chapter 1, Available at: https://doi.org/10.1016/B978-0-323-88668-0.00005-X

[2] Zobaidul Kabir, Nahid Sultana, **I. Khan** (2022) Environmental, social, and economic impacts of renewable energy sources. In: Renewable Energy and Sustainability: Prospects in the Developing Economies. ***Elsevier***, Chapter 3, Available at: https://doi.org/10.1016/B978-0-323-88668-0.00009-7

[3] M. M. Rahman, **I. Khan**, Kamal Alameh (2022) The role of energy storage technologies for sustainability in developing countries. In: Renewable Energy and Sustainability: Prospects in the Developing Economies. ***Elsevier***, Chapter 13, Available at: https://doi.org/10.1016/B978-0-323-88668-0.00004-8

[4] **I. Khan** (2021) Sustainable Energy Infrastructure Planning Framework: Transition to a Sustainable Electricity Generation System in Bangladesh. In: Energy and Environmental Security in Developing Countries. ***Springer Nature***, Chapter 7, Available at: https://doi.org/10.1007/978-3-030-63654-8_7

[5] **I. Khan**, (2021) Sustainability assessment of energy systems: Indicators, methods, and applications. In: Methods in Sustainability Science: Assessment, Prioritization, Improvement, Design and Optimization. ***Elsevier***, Chapter 4, Available at: https://doi.org/10.1016/B978-0-12-823987-2.00016-7

[6] Z. Kabir, M.A. Yusuf, **I. Khan** (2021) An overview of policy framework and measures promoting bioenergy usage in the EU, the United States, and Canada. In: Bioenergy Resources and Technologies. ***Elsevier***, Chapter 14, Available at: https://doi.org/10.1016/B978-0-12-822525-7.00015-9

[7] **I. Khan**, Sujan Chowdhury, and Zobaidul Kabir (2020). An Overview of the Energy Scenario in Bangladesh: Current Status, Potentials, Challenges and Future Directions. In: *Energy and Environmental Outlook for South Asia*. ***CRC Press*** *(Taylor & Francis Group)*, Chapter 3, Available at: https://www.taylorfrancis.com/chapters/overview-energy-scenario-bangladesh-current-status-potentials-challenges-future-directions-imran-khan-sujan-chowdhury-zobaidul-kabir/e/10.1201/9781003131878-3?context=ubx&refId=ba2dea3d-a8ff-4ea3-850a-399c9f13a858

IEEE Conference Proceedings:

[1] Bhuiyan B. U., **Khan I.** (2024). Household Energy Consumption Clustering Using 'k-means' Algorithm: A Bangladesh Case Study, *International Conference on Power, Electrical, Electronics and Industrial Applications (PEEIACON)*, IEEE, 12-13 Sep. 2024, Rajshahi, Bangladesh. (Accepted)

[2] Bhuiyan B. U., Karim M.M., **Khan I**. (2023). IoT-based Three-phase Smart Meter: Application for Power Quality Monitoring, *6th International Conference on Electrical Information and Communication Technology (EICT)*., IEEE, 07-09 Dec. 2023, Khulna, Bangladesh. Available at: https://ieeexplore.ieee.org/document/10427710

[3] **Khan I**., Halder P., Moznuzzaman M., Sarker E., Al-Amin M. (2021). Renewable Energy Applications in the University Campuses: A Case Study in Bangladesh, *5th International Conference on Electrical Information and Communication Technology (EICT)*., IEEE, 17-19 Dec, 2021, Khulna, Bangladesh. pp. 1–6. Available at: 10.1109/EICT54103.2021.9733497

[4] **Khan I**. (2018), Time-segmented Regression Analysis: An Approach in Designing more Effective DSM Scheme, 6th IEEE Conference on Technologies for Sustainability, IEEE, Long Beach, CA, USA, pp. 1–2. Available at: https://doi.org/10.1109/SusTech.2018.8671364

[5] **Khan I**., Jack M.W., Stephenson J. (2017). Use of Time-varying Carbon Intensity Estimation to Evaluate GHG Emission Reduction Opportunities in Electricity Sector, 5th IEEE Conference on Technologies for Sustainability., IEEE, Phoenix, AZ, USA. pp. 1–2. Available at: https://doi.org/10.1109/SusTech.2017.8333479

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