



## Dr. Akhlaque Ahmad Khan

Associate Professor & Ph.D. Coordinator

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[Google Scholar Citation](#), [Orcid Id](#), [Scopus](#), [Web of Science](#), [Research gate](#), [linked in](#)

### PROFILE

- Dr. Akhlaque Ahmad Khan is currently an Associate Professor in the Electrical Engineering department at Integral University, Lucknow.
- His research focuses on renewable energy integration, solar PV system design and forecasting, System sizing using Tools/Software, solar MPPT, and AI-based performance analysis of green energy systems for sustainable development.
- His PhD research was centered on the Performance Matrices, Operational Factors, Optimization, and Techno-Economic Analysis of Hybrid Renewable Energy Systems for Smart Grid Applications.
- Currently supervising 04 PhD students; topics related to hybrid renewable systems and optimization of electrical distribution grids.

### EXPERIENCE

**Total Experience: 17 Years and 11 month**

**(upto June 2026)**

**Additional Experience: 12 Years and 11 month (Evening)**

**(upto June 2026)**

- Currently working as an Associate Professor in the Department of Electrical Engineering at Integral University, Lucknow (U.P), India from 01 May 2026 to till date.
- Worked as an Assistant Professor in the Department of Electrical Engineering at Integral University, Lucknow (U.P), India from 01 January 2013 to 30 April 2026.
- Worked as a Sr. Lecturer in the Department of Electrical & Electronics Engineering at Integral University, Lucknow (U.P), India from 01 August 2012 to 31 December 2012.
- Worked as a Lecturer in the Department of Electrical & Electronics Engineering at Integral University, Lucknow (U.P), India from 01 August 2008 to 31 July 2012.

### EDUCATIONAL QUALIFICATION

Degree	Branch/ Specialization	Year
Ph.D.	Electrical Engineering	2024
M.Tech.	Electrical Engineering (specialization in Instrumentation & Control)	2014
B.Tech.	Electrical and Electronics Engineering	2008
Diploma (One Year)	Computer Application & D.T.P. Multimedia	2012
Intermediate	PCM	2004
High School	Science	2002

### RESEARCH INTEREST

- Solar PV system design and optimization.
- System Sizing using tools/Software
- Performance Matrices and Operational Factors of Solar-based Power plant
- Renewable energy integration.
- Solar PV system assessment and forecasting.
- Solar PV system design and optimization.
- AI-based operation and performance analysis of green energy systems.

- Sustainable energy development and management.
- Fault analysis in solar panels and systems.

## SUMMARY OF RESEARCH ACCOMPLISHMENT

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- **PhD Research:** Planning, Optimization and Analysis of Hybrid Electric Distribution Grid.
- **PhD Supervision:** Currently supervising four PhD students, who are related to hybrid renewable systems and optimization of electrical distribution grids
- **Research Publications:** Published several research papers in high-impact journals related to solar PV systems, renewable energy, and AI-based energy solutions.

## PROFESSIONAL MEMBERSHIP

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- Member of Solar Energy Society of India (SESI), India. (Reg. ID: 4510)
- Member of International Association of Engineers (IAENG) Society for Electrical Engineering, Hong Kong. (Membership No. 114007)
- Member of World Academy of Science, Engineering & Technology (WASET), USA.
- Member of American Society for Engineering Education (ASEE), USA.
- Member of International Society for Research and Development of Engineers (IAENG) Society for Electrical Engineering, Hong Kong. (Lifetime Membership No. M3140900385)
- Reviewers of many SCIE journals/bodies like Renewable and Sustainable Energy Reviews, Energy, Measurement: Sensors, SETA, IOAP, IEEE Access, CRC, Wiley, Energy Reports, Renewable Energy Focus, Discover Energy, Energy Informatics, Cogent Engineering, Smart Grids and Sustainable Energy etc.

## COURSE TAUGHT

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- **Ph.D. Level:** Renewable Energy and The Environment
- **PG Level:** Optimization Techniques, Instrumentation and Control, Network Theory, RET, etc.
- **UG Level:** Linear Network and Systems, Basic Electrical Engg., Electrical Circuit Theory, Network Analysis & Synthesis, Non-Conventional Energy Resources, Control Systems, Element of Power System etc.

## ADMINISTRATIVE/DEPARTMENTAL RESPONSIBILITY

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- **Criteria In charge:** I-Curricular Aspects: Curriculum Design & Development, and VII-Institutional Values and Best Practices for University accreditation through National Assessment and Accreditation Council (NAAC) 2016-17 to 2020-21 cycle and 2021-22 to till date & National Accreditation Board (NBA)-2012, 12(B) and 2(f) 2013-14 Electrical Engineering Department.
- **Program Coordinator (Ph.D.)** of session 2024-25 to till date, Department of Electrical Engineering, Integral University, Lucknow.
- **Member** of Board of Studies (2008 to till date), Member of Faculty Board (2024 to till date) and Member of Academic Council Member (2024 to till date).
- **Faculty Proctor** of Integral University from 2015-to till date.
- **President of Robotics Society** of Integral University (RSIU) from 2009-2013.
- **Executive Member of Alumni Association** of Integral University (AAIU) from 2016 to till date.
- **Vigilance Committee Member**, Integral University from 2024 to till date.
- **Program Coordinator (PG)** of session 2016-17 to 2018-19, Department of Electrical Engineering, Integral University, Lucknow, UP. INDIA.
- Organized a Professional Development Program on Recent Trends in Green Technology for Sustainable Life in the Department of Electrical Engg, Integral University, Lucknow, India during 2<sup>nd</sup>-16<sup>th</sup> November, 2021.
- Organizer/Member of Editorial Team in 2<sup>nd</sup> IEEE International conference CCTES-24 held on November 15-16, 2024, at Integral University, Lucknow, UP. INDIA.
- Organizer /Member International Seminar on Modern Trends in Engineering and Sciences (MTES-17) held on 3<sup>rd</sup> August 2018 at Integral University, Lucknow, UP. INDIA.
- Organizer /Member of Editorial Team in IEEE International conference CCTES-18 held on September 14-15, 2018, at Integral University, Lucknow, UP. INDIA.

- Organized a Workshop on Advance AutoCAD Electrical by collaboration with Deptt. of Electrical Engg. and CADD Centre Lucknow at Integral University, Lucknow on 06 August '2016.
- Organized an Industrial Tour to Chandigarh, Baddi, Kullu and Manali of Department of Electrical Engineering and Electrical & Electronics Engineering for reducing the gap and make the bridge between Industry and Academia on 24 Feb to 01 March 2016.
- Organized a Short-Term Course on Advance Power Electronic Converters for Renewable Energy & Smart Grid conducted by Deptt. of Electrical Engg. under the aegis of Academic Staff College, Integral University, Lucknow on 15-19 Feb'2016.
- Organized Seminar on "Power Electronic Converters for Grid Interface of Solar Power Generation" organized Deptt. of Electrical Engineering under the aegis of Academic Staff College, Integral University, Lucknow on 12 Feb'2016.
- Organized Workshop on "Biped Rex" conducted by Skill Rex Technology, Mumbai which was an integral part of E<sup>2</sup>C- Engineering Excellence Championship at Integral University, Lucknow on October 13-14, 2015.
- Organized a workshop on "ARM (Advanced RISC Machine)" by Deptt. of Electrical and Electronics Engg. held at Integral University, Lucknow on 12 March' 2015.
- Organized Workshop on "Gesture Recognition using IR Sensor" conducted by Robo Species Pvt. Ltd in association with IOA Houston USA held at Integral University, Lucknow on September 17-18, 2014.
- Organized Workshop on "Legged Mobile-Botix" conducted by Technophilia Systems in association with Robotics & Computer Applications Institute of USA held at Integral University, Lucknow on March 11-12, 2014. This Workshop is an Integral Part of the Indo-US RoboLeague 2014.
- Organized Workshop on "Industrial Automation" in Collaboration with Logicon Automation, Lucknow and Deptt. of EN Integral University held at Integral University Lucknow on Jan 30, 2014
- Organizing Member of National Conference on "Emerging Trends in Mechanical and Electrical Engineering" (NCETMEE)-2012, at Integral University Lucknow on June 12-13, 2012.
- Organized Workshop on "Low voltage switchgears" conducted by Larson and Toubro (L&T), Training Centre, Sarojini Nagar, Lucknow
- Resource person in one week Faculty Development Program on "MATLAB & Its Application in Engineering" at Azad Institute of Engineering & Technology, Lucknow from 14.01.2016 to 18.01.2016.
- Organized a short-term course on "Advance Power Electronic Converter for Renewable Energy & Smart Grid" during 15<sup>th</sup> -19<sup>th</sup> February 2016 at Integral University Lucknow.
- Member of Departmental Student Placement Committee of Electrical Engineering Department from 2011 to 2016.
- Seminar Incharge, Project Incharge, Course Coordinator, Convener, Class Coordinator, Mentor, Supervisor and Counselor, etc.
- Paper Setter and Examiner at different levels (UG, PG) of Examinations/Entrance Test (Internal/External).
- Installed 'Electrical Simulation Lab' in Electrical Engineering Department, Integral University, Lucknow and Jahangirabad Institute of Technology, Jahangirabad, Barabanki, India in 2015.

## STUDENTS SUPERVISION

### PhD Supervision: 04

S.No.	Name	Enrollment No. / Reg. Date	Title of Thesis	Status
1.	Sapna Yadav	1500100002 / 13.09.2025	Net-Zero Energy Buildings for Smart Cities	Initial Phase
2.	Syed Adnan Akhtar	2500107009 / 13.09.2025	Inverse Optimization-based learning for Optimal Control in Industrial Process Systems	Initial Phase
3.	Shivanand	2500106975 / 13.09.2025	Digital Substation-based Intelligent Energy Management for Grid Stability Enhancement with Integrated Renewable and Electric Vehicles	Initial Phase
4.	Qamar Alam	2100151 / 23.10.2021	Efficient Multilevel inverter for high reliability applications	Last Phase

**PG (M. Tech.) Dissertation Supervised: 11<sup>+</sup>**

S.No.	Name	Enroll. No.	Title of Thesis	Session
1.	Munazza Anis	1800103762	Modelling, Simulation and Dynamic Performance Analysis of Synchronous Generator.	2024-25
2.	Ahmad Khubaib Minai	1300101102	Design and Cot-to-Benefit Analysis of a Grid-Integrated Solar PV System	2023-24
3.	Somnath Swain)	2001102006	Environmental, Techno-Economic Feasibility Analysis of Grid-Connected PV power Plants in Subtropical Regions using Ant Colony Optimization	2022-23
4.	Sami Uz Zaman	1300102026	Modelling and Analysis of Solar PV Water Pumping System	2022-23
5.	Munish Kumar	1700103382	IoT based Energy Management System for Smart Grid	2019-20
6.	Satish Kumar	1600102129	Solar Energy Utilization and enhancement using load scheduler	2018-19
7.	Pradeep Kumar	1601068001	Analysis, Design and Modelling of Isolated AC-DC Converter for Power Quality Enhancement	2017-18
8.	Anas Khan	1300101694	Human Stress Detection using ECG	2017-18
9.	Promod Verma	1501102005	Topological Analysis of Multilevel Inverter for Photovoltaic system	2016-17
10.	Abishek Gautam	1300102551	Optimization of Fuzzy Logic MPPT Controller using PSO Technique	2015-16
11.	Abdussalam	1200102182	Discrimination between Inrush and Fault Current in Power Transformer by using Fuzzy Logic	2014-15

**UG (B. Tech.) Project Supervised: 32<sup>+</sup> Groups****RESEARCH HIGHLIGHTS**

<b>International Publications</b>	<b>42 Published + 15</b> in Communication* (h index- <b>10</b> , Citations- <b>515</b> till <b>01 March 2026</b> )	
<b>International Journals: 24 (+09*)</b>	<b>International/Notational Conferences: 12 (+03*)</b>	<b>Book Chapters: 06 (+03*)</b>
<b>Patents</b>	<b>01</b> [Indian Published: 01]	
<b>Project (Seed Money) (2024-2026)</b>	Health Monitoring, Performance Optimization and Cost-Evaluation Framework for the 91kW Rooftop Grid-Connected Solar Photovoltaic System at Integral University, Lucknow	

**PUBLISHED/GRANT PATENTS**

- Advanced optimization model for coupling power plant to PV-Wind-Electric vehicles, DOP: 06.10.2023 (Indian Patent).

**PUBLISHED/GRANT PATENTS**

- A.A. Khan (PI)** and M. A. Siddiqui (Co-PI), Health Monitoring, Performance, Optimization and Cost Evaluations Framework for 91kW Rooftop Grid-Connected SPV System. Integral University, Lucknow. **Sanctioned Amount: 1.5 Lacs, Project Sanction No.: IUL/ICEIR/SMP/2024/006.**

**PUBLISHED/ACCEPTED SCI/SCOPUS RESEARCH PAPERS**

- Khan, A.A., Minai, A.F., Hakami, A. et al. Optimization and techno-economic-environmental analysis of a grid-tied hybrid renewable energy system for a subtropical Indian University. Discov Sustain 6, 792 (2025). <https://doi.org/10.1007/s43621-025-01745-1>. (ESCI, Q2, IF 3.0, Springer Nature)
- Khan, A.A., Minai, A.F. The Role of IoT in Irrigation System to Achieve the Sustainable Development Goals: Monitoring Strategies, Controlling, Future Prospective, and Challenges. J. Inst. Eng. India Ser. A (2025). <https://doi.org/10.1007/s40030-025-00911-y> (SCOPUS Q2, Springer Nature)
- A. Ahmad Khan, A. Faiz Minai, R. K. Godi, V. Shankar Sharma, H. Malik and A. Afthanorhan, "Optimal Sizing, Techno-Economic Feasibility and Reliability Analysis of Hybrid Renewable Energy System: A Systematic Review of Energy Storage Systems' Integration," in IEEE Access, vol. 13, pp. 59198-59226, 2025. <https://doi.org/10.1109/ACCESS.2025.3535520>. (SCIE, Q1, IF 3.6)

- Bogno B, Goron D, Nicodem N, Shanmugan S, Kidmo Kaoga D, Kitmo, Khan A A, et al. (2024) Enhancing the power quality in radial electrical systems using optimal sizing and selective allocation of distributed generations. PLoS ONE 19(12): e0316281. <https://doi.org/10.1371/journal.pone.0316281>. (SCIE, Q1, IF 2.9)
- Akhlaque Ahmad Khan *et al* 2024. Feasibility and Techno-Economic Assessment of 128kWpGrid-Tied Photovoltaic System using HOMER Pro *J. Phys.: Conf. Ser.* 2777 012008. IOP Publishing Ltd. <https://doi.org/10.1088/1742-6596/2777/1/012008>. (SCOPUS)
- Minai A.F., Khan A.A\*, Kitmo B., Ndiaye M.F., Alam T., Khargotra R., Singh T. (2024). Evolution and role of virtual power plants: Market strategy with integration of renewable based microgrids. *Energy Strategy Reviews*. Volume 53, 2024.101390. ISSN 2211-467X. <https://doi.org/10.1016/j.esr.2024.101390>. (SCIE, Q1, IF 9.8)
- Khanum F., Khan A. R., Khan A., Aafreen A., Khan A.A., Ahmad A., Akhtar S.M.F., Farooq O., Shaphe M.A., Alshehri M.M., Shahi F. I., Alqahtani A.S., Albakri A., Obaidat S.M. (2024). Predicting mechanical neck pain intensity in computer professionals using machine learning: identification and correlation of key features. *Frontiers in Public Health* (2024).12:2024. <https://doi.org/10.3389/fpubh.2024.1307592> (SCIE, Q1, IF 5.2)
- P. R. Sarkar, A. F. Minai, I. Ahamad, F. I. Bakhsh, A. A. Khan, R. K. Pachauri. (2024). Power Quality Assessment and Enhancement using FLC based SPV Supported Cascaded H-Bridge Multilevel Inverter, e-Prime - Advances in Electrical Engineering, Electronics and Energy. Volume 7, March 2024, 100465. <https://doi.org/10.1016/j.prime.2024.100465> (SCOPUS)
- Khan, Akhlaque Ahmad and Minai, Ahmad Faiz. "A strategic review: the role of commercially available tools for planning, modelling, optimization, and performance measurement of photovoltaic systems" *Energy Harvesting and Systems*, vol. 11, no. 1, 2024, pp. 20220157. <https://doi.org/10.1515/ehs-2022-0157> (SCOPUS)
- Kitmo, Choudhury S., Khan A. A., Das S., and Mohamed F. Elnaggar M.F." Intelligent Approach for Control Techniques Based on Complex Converter Structures". *International Journal of Energy Research*. Volume 2023 | Article ID 6770322 | <https://doi.org/10.1155/2023/6770322>. (SCIE, Q1, IF 5.2)
- Minai, A.F.; Khan, A.A.; Pachauri, R.K.; Malik, H.; Márquez, F.P.G.; Jiménez, A.A. Performance Evaluation of Solar PV-Based Z-Source Cascaded Multilevel Inverter with Optimized Switching Scheme. *Electronics* 2022, 11, 3706. <https://doi.org/10.3390/electronics11223706> (SCIE, Q2, IF-2.9).
- Khan, A.A.; Minai, A.F.; Pachauri, R.K.; Malik, H. Optimal Sizing, Control, and Management Strategies for Hybrid Renewable Energy Systems: A Comprehensive Review. *Energies* 2022, 15, 6249 <https://doi.org/10.3390/en15176249> (SCIE, Q2, IF-3.2)
- A. F. Minai, M.A. Husain, M. Naseem, A.A. Khan, (2021) Electricity Demand Modeling Techniques for Hybrid Solar PV System, *International Journal of Emerging Electric Power System (IJEPS)*, ISSN: 1553-779X, July 7, 2021 (ESCI, Q3, IF-0.26).

\*In Communication:

- Optimal sizing and allocation of Distributed Generations in stochastic distribution Systems using Modified Ant Lion Algorithms in PLOS ONE. (Revision 3, Submitted, SCIE, Q1).
- Real Time Energy Performance and Loss Analysis of 108.8 kWp Rooftop Grid-Tied SPV Power Plant. in *Discover Energy*. (Submitted ESCI, Q2)
- Wind Turbine Condition Monitoring: Intelligent Approaches and Methodologies in RSER. (Under Review, SCIE, Q1).
- Conjoining Supervised and Unsupervised Machine Learning Techniques for EEG Signal Classification in Multimedia and Tools. (Under Review, SCIE, Q1)
- A. A. Khan1\*, A. Khan, A. F. Minai and A. R. Khan (2023), "Challenges and Opportunities for applying HMI to Development of Skills in Healthcare Education" in *Discover Education*. (Under Review, Scopus)
- A Systematic Study of Climate Change, Air Pollution, and their Impact on Public Health in Indian Large Cities. (Under Review, SCIE, Q1).
- Reliability and Maintainability Analysis of a Wind Turbine using FMMA and FMECA. (Scopus)

- The Role of Artificial Intelligence (AI) in Smart Meters for Data Analytics: Methodologies and Applications. (SCIE, Q1).
- Constraints of Renewable Energy Technologies: An Editorial Review. (Under Review Scopus)
- Review of hybrid energy systems for sizing, reliability and cost analysis methodologies. (SCIE, Q1).

#### PAPER PUBLISHED IN INTERNATIONAL CONFERENCES

- A. A. Khan, A. F. Minai, M. A. Siddiqui (2024). Feasibility and Techno-Economic Assessment of a 128kWp Grid-Tied SPV System using HOMER Pro *J. Phys.: Conf. Ser.* 2777 012008 ([Journal of Physics: Conference Series](#))
- Minai, A.F., Siddiqui, M.A., Laskar, S.H., Khan, A.A., Pachauri, R.K. (2024). Performance Evaluation and Assessment of 100 kW Grid-Tied SPV System in Subtropical Climatic Conditions. In: Gabbouj, M., Pandey, S.S., Garg, H.K., Hazra, R. (eds) Emerging Electronics and Automation. E2A 2022. Lecture Notes in Electrical Engineering, vol 1088. Springer, Singapore. ([SPRINGER, SCOPUS](#))
- Anand, R., Pachauri, R.K., Minai, A.F., Khan, A.A., Singh, R., Shashikant (2024). Energy Production from Various Bio-wastes Under Different Electrode and Temperature Conditions: Experimental Study. In: Malik, H., Mishra, S., Sood, Y.R., Iqbal, A., Ustun, T.S. (eds) Renewable Power for Sustainable Growth. ICRP 2023. Lecture Notes in Electrical Engineering, vol 1086. Springer, Singapore. ([SPRINGER, SCOPUS](#))
- A. F. Minai, A. A. Khan, M. A. Siddiqui, F. I. Bakhsh, M. A. Hussain and R. K. Pachauri, "Genetic Algorithm Based SPV System with Cascaded H-Bridge Multilevel Inverter," 2023 International Conference on Power, Instrumentation, Energy and Control (PIECON), Aligarh, India, 2023, pp. 1-6, doi: 10.1109/PIECON56912.2023.10085864. ([IEEE, SCOPUS](#))
- A. F. Minai, A. A. Khan, M. A. Siddiqui, R. K. Pachauri, A. Raj, "Design and cost study of a 25 kW SPV system based on real performance in an Indian environment", (2023) Fifth International Conference on Intelligent Communication, Control and Devices (ICICCD-2022), UPES, Dehradun, 11-12 November, 2022 ([River, SCOPUS](#))
- M. A. Siddiqui, M. Nishat Anwar, A. F. Minai, Akhlaque Ahmad Khan, M. Naseem and A. Jabbar, "A Direct Synthesis based Sliding Mode Control of a Nonlinear Continuous Stirred Tank Reactor," IECON 2022 – 48<sup>th</sup> Annual Conference of the IEEE Industrial Electronics Society, 2022, pp. 1-6, doi: 10.1109/IECON49645.2022.9969082. ([IEEE, SCOPUS](#)).
- A. A. Khan, A. F. Minai, L. Devi, Q. Alam and R. K. Pachauri, "Energy Demand Modelling and ANN Based Forecasting using MATLAB/Simulink," 2021 International Conference on Control, Automation, Power and Signal Processing (CAPS), 2021, pp. 1-6, doi: 10.1109/CAPS52117.2021.9730746. ([IEEE, SCOPUS](#))
- M. Naseem, M. A. Husain, J. D. Kumar, M. W. Ahmad, A. F. Minai and A. A. Khan, "Particle Swarm Optimization based Maximum Power Point Tracking Technique for Solar PV System under Partially Shaded conditions," 2021 International Conference on Control, Automation, Power and Signal Processing (CAPS), 2021, pp. 1-6, doi: 10.1109/CAPS52117.2021.9730703. ([IEEE, SCOPUS](#))
- M. Kumar, A. F. Minai, A. A. Khan and S. Kumar, "IoT based Energy Management System for Smart Grid," 2020 International Conference on Advances in Computing, Communication & Materials (ICACCM), 2020, pp. 121-125, doi: 10.1109/ICACCM50413.2020.9213061. ([IEEE, SCOPUS](#))
- Akhlaque Ahmad Khan "Image Analysis through Wavelets" in International Conference on Emerging Trends in Engineering and Technology (April 12-13, 2013) at Teerthanker Mahaveer University, Moradabad, U.P. (India).
- Satish Kumar, Akhlaque Ahmad Khan, Ahmad Faiz Minai, Munish Kumar, Anil Kumar Singh, "Load Scheduling and Utilization of Solar Energy using Arduino", Organized by Department of Mechanical Engineering F.E.T. M.J.P. Rohilkhand University, Bareilly, (U.P.), INDIA Sponsored by TEQIP-13, Proceeding of 4th International Conference on Academic Research in Engineering, Management and Information Technology (ICAREMIT-2019), pp. 104-109, ISBN: 978-81-933433-5-7.

*\*In Press /Communication:*

- Constraints of Renewable Energy Technologies: An Editorial Review. **(Accepted: Scopus)**
- **A. A. Khan**, A. F. Minai, Solar Photovoltaic Energy-Based Electric Vehicle Charging: A Techno-Economic and Feasibility Study.

**PAPER PUBLISHED IN NATIONAL CONFERENCES**

- **Akhlaque Ahmad Khan**, Ahmad Faiz Minai, Syed Ali Akhtar Siddiqui, Ratnesh Kumar “Design Four Quadrant Chopper for Speed Control of DC Motor” in Proc. NCETMEE 2012, CD-ROM (12-13 June 2012) at Integral University, Lucknow.
- Ahmad Faiz Minai, **Akhlaque Ahmad Khan**, Shoaib Ahmad “Analysis of a Grid-Connected PV System” in Pro. AEEE 2011, CD-ROM (24 to 25 February 2011) at SVCE, Indore

**BOOK CHAPTERS**

- A. Khan, A. F. Minai, Q. Alam, F. I. Bakhsh (2024) Multilevel Inverters: Classification Approaches and its Application in Photovoltaic System, In: Multilevel Converters. (eds S. Ahmad, F. I. Bakhsh, P. S. Kumar). Print ISBN:9781394166329 |Online ISBN:9781394167371. <https://doi.org/10.1002/9781394167371.ch2> (John Wiley & Sons, Inc., SCOPUS).
- A. Khan, A. F. Minai, M. A. Husain, M. Naseem (2024) Multilevel Inverter for Renewable Energy Sources Based Grid Integration, In: Multilevel Converters (eds S. Ahmad, F. I. Bakhsh, P. S. Kumar). Print ISBN:9781394166329 |Online ISBN:9781394167371. <https://doi.org/10.1002/9781394167371.ch9> (John Wiley & Sons, Inc., SCOPUS).
- A. Khan, A. F. Minai (2024) Metaheuristic Techniques for Power Extraction from PV based Hybrid Renewable Energy Sources In: Photovoltaic Systems Technology: Advances and Applications. In Photovoltaic Systems Technology (eds M. A. Husain, M. W. Ahmad, F. I. Bakhsh, P. S. Kumar, H. Malik). Print ISBN:9781394166428 |Online ISBN:9781394167678. <https://doi.org/10.1002/9781394167678.ch6>. (John Wiley & Sons, Inc., SCOPUS).
- Pachauri R.K., Sharma V., Kumar A., Shashikant, Khan A.A., Sharma P. (2024). Conventional and AI-Based MPPT Techniques for Solar Photovoltaic System-Based Power Generation. In Clean and Renewable Energy Production (eds S. Mondal, A. Kumar, R.K. Pachauri, A.K. Mondal, V.K. Singh and A.K. Sharma). Print ISBN 9781394174423|OnlineISBN: 9781394174805. <https://doi.org/10.1002/9781394174805.ch15>. (John Wiley & Sons, Inc., SCOPUS).
- A. Khan, A. F. Minai (2023), Introduction to Grid-Forming Inverters (GFMI)s, InB. (Eds.). (2023). Grid-Forming Power Inverters: Control and Applications (1st ed.). CRC Press. Page 1-14, ISBN: 9781003302520. <https://doi.org/10.1201/9781003302520-1> . (Taylor & Francis, Scopus)
- M. Kumar, A. A. Khan, A.F. Minai (2022) Solar Energy Utilization and Enhancement using Load Scheduler In: Electrical Engineering Scrivener: Integral University Lucknow-2022

*\*In Press/Communication:*

- A. Khan, A. F. Minai (2023), Application of Power Electronics in Wind Energy Conversion Systems in Universiti Teknologi Malaysia (Penerbit UTM Press). (Accepted)
- A. Khan, A. F. Minai (2023), Smart IoT-Based Control Systems in Smartcity-iot-bigdata-2023 (CRC Taylor & Francis, Abstract Accepted)
- A. Khan, A. F. Minai (2023), Applications of Artificial Intelligence (AI) in Smart Meters for Data Analytics in Smart Metering: Infrastructure, Methodologies, Applications and Challenges.

**PROFESSIONAL SOFTWARE SKILLS**

- Working knowledge of HOMER, PVSyst, MATLAB/SIMULINK, REopt, PVSOL etc.
- Working knowledge of MS Office

**AWARDS**

- **Best Researcher Award in Renewable Energy** by Science Father U.K in 2024.
- Received Certificate of Merit for **University Topper (Gold Medal) in PG Program**, Session 2013

- Received Certificate of Merit for **Branch Topper (Gold Medal) in PG Program**, Session 2013-14.

#### **SHORT-TERM COURSES/SEMINARS/TRAININGS/WORKSHOPS/FDP**

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- **Participated, Attended and Organized: 100+**
-