



SHUBHAM TIWARI

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Career objective

To have a growth oriented and challenging career, where I can contribute my knowledge and skills to the organization and enhance my experience through continuous learning and teamwork.

Academic Qualifications

Course	University/Board	Name of College/Institute	Course Duration	Percentage/CGPA
Doctor of Engineering (D.Eng.), Sustainable Energy Transition	Asian Institute of Technology, Bangkok, Thailand.	Asian Institute of Technology, Bangkok, Thailand.	Aug 2020- Nov 2023	4/4
Master of Engineering (M.E) Electrical Power System Management, Energy	Asian Institute of Technology, Bangkok, Thailand.	Asian Institute of Technology, Bangkok, Thailand.	Jan 2018- Dec 2019	3.88/4 (TOPPER)
B. Tech Electrical Engineering	Rajasthan Technical University, Kota, Rajasthan, India.	University College of Engineering, Kota, Rajasthan, India.	2011-2015	80.58% (GOLD MEDALIST)

Work Experience

- Organization** International Institute of Applied System Analysis, Austria
Post PostDoc-Researcher
Work Geo-Spatial Energy System Modelling to explore the potential of Hydrogen and Direct air capture based Sustainable Aviation Fuels.
Duration July 2023 to ongoing
- Organization** Consultants of Technologies (COT), Thailand
Post Internship
Work Power & Energy Engineer
Duration August 2022 to April 2023
- Organization** Leonics Co., Ltd. Thailand / Asian Institute of Technology, Thailand
Post Research Assistant
Work Renewable Energy Engineer
Duration February 2020 to August 2020

4. Organization	Madhya Pradesh Madhya Kshetra Vidyut Vitran Co. Ltd., (M.P.E.B) Bhopal, Madhya Pradesh, India.
Post	Assistant Engineer (MANAGER), Banmore Subdivision Morena, Madhya Pradesh, India.
Work	Operation and Maintenance of Electrical supply at Distribution Level.
Duration	24 December 2016 to 26 December 2017

Ongoing/Completed Projects

- **PhD Thesis:** Cooperation based Transactive Energy Management for Modelling and Analysis of Low Emission Multi-Vectored Networked Energy Hubs.
- **Research Assistant Work:** Modelling and simulation of islanded droop control inverters for NODEX technology. Converter design for charging and discharging of E TUK-TUK batteries to grid with solar PV integration.
- **Master Thesis:** A Decentralized Primary Frequency Response with Virtual Inertia Control of Energy Storage Units for Hybrid Renewable Energy Microgrid Systems

Area of Interest

- Energy system modelling
- Robust stochastic optimization techniques
- Carbon reduction (CDR) technologies
- Energy and carbon markets
- Supply chain optimization
- Network microgrid/energy hubs &, power-to-gas operations
- Low inertia microgrids operation, modelling, and control

Software proficiency

- GAMS, Python (Pyomo), ArcGis, PLEXOS, MATLAB, PSCAD, Power World Simulator, DIgSILENT Power Factory, PVsyst, HelioScope, HomerPro

Publications

- **Shubham Tiwari & J. G. Singh**, “A cooperation based transactive energy management considering improved payoff allocation mechanism for networked multi-energy systems”, Sustainable Energy Technologies and Assessments, 2024, [IF: 8].
- **Shubham Tiwari & J. G. Singh**, “A static robust energy management approach for modelling low emission multi-vectored energy hub including emission markets and power-to-gas units, Energy, 294, 2024, (<https://doi.org/10.1016/j.energy.2024.130827>) [IF: 9].
- **Shubham Tiwari & J. G. Singh**, “Tri-Level Stochastic Transactive Energy Management and Improved Profit Distribution Scheme for Multi-Vectored Networked Microgrids: A Multi-Objective Framework”, Sustainable Cities and Society, 95, 2023, (<https://doi.org/10.1016/j.scs.2023.104569>) [IF: 11.7].
- **Shubham Tiwari & J. G. Singh**, “Optimal energy management of multi-carrier networked energy hubs considering efficient integration of demand response and electrical vehicles: A

cooperative energy management framework”, Journal of Energy Storage, 51, 104479, 2022 (<https://doi.org/10.1016/j.est.2022.104479>) [IF: 9.4].

- **Shubham Tiwari**, M. Nimal Madhu, Weerakorn Ongsakul, Jai Govind Singh, “Modeling and analysis of an islanded hybrid microgrid for remote off-grid communities, Residential Microgrids and Rural Electrifications”, Academic Press, Elsevier, 2021 (<https://doi.org/10.1016/B978-0-323-90177-2.00004-9>).
- **Shubham Tiwari**, Jai Govind Singh, Weerakorn Ongsakul, “A Numerical Approach for Estimating Emulated Inertia with Decentralized Frequency Control of Energy Storage Units for Hybrid Renewable Energy Microgrid System”, Micro Grid Technologies, Wiley-Scrivener, 2020 (<https://doi.org/10.1002/9781119710905.ch9>).
- **Shubham Tiwari**, Ankit Bhatt, Arjun C. Unni, Jai Govind Singh, Weerakorn Ongsakul, “Control of DC Motor Using Genetic Algorithm Based PID Controller”, Department of Energy, Environment and Climate Change School of Environment Resources and Development, Asian Institute of Technology, Pathum Thani, Thailand – 12120, ICUE 2018 on Green Energy for Sustainable Development, Phuket, Thailand, 24 – 26 October 2018 ([10.23919/ICUE-GESD.2018.8635662](https://doi.org/10.23919/ICUE-GESD.2018.8635662)).
- **Shubham Tiwari**, Arjun C Unni, Rajanivedha R., Jai Govind Singh, Weerakorn Ongsakul, “Harmonic Analysis of Separately Excited Dc Motor Drive”, Department of Energy, Environment and Climate Change School of Environment Resources and Development, Asian Institute of Technology, Pathum Thani, Thailand – 12120, Innovations in Power and Advanced Computing Technologies (i-PACT), V.I.T, , Tamil Nadu, India, 22-23 March 2019 ([10.1109/i-PACT44901.2019.8960082](https://doi.org/10.1109/i-PACT44901.2019.8960082)).

Achievements and Extra-curricular activities

- Awarded ‘HM King’s’ Scholarship (1.96MTHB) for PhD in Aug 2020.
- Awarded “Outstanding Student Award” (The Yoshiro Takasaki Prize) and 250 USD prize money in Master thesis, 2019.
- Stood First and obtained “Excellent” grade in master’s thesis, 2019.
- Gold Medalist, Topper of Electrical Branch (80.58%) in B. Tech, 2011-2015.
- Won “DCM Shriram Scholarship 2015” having a cash prize of Rs 7000.00.
- Awarded Gold Medal “Shrimati Yashomati D Pareek Smriti Padak”, by Old Boys Association of Government College Kota, Rajasthan in 2015.
- Selected as General Secretary of Students Council of UCE, RTU -Kota 2015

References

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