

Name: Dr. Shantanu Acharya

Designation: Associate Professor

Branch: Electrical Engineering



**Educational Qualification(s):**

Qualification(s)	University
B.E.	North Maharashtra University (N. M. U.)
M.Tech	Tripura University (T. U.)
Ph.D	National Institute of Technology (N.I.T), Agartala

**Experience in years:**

Academic:

Details:

Sl. No.	Organization	Position Held	Duration	
			From	To
1	ICFAI University, Tripura	Asst. Prof.	Jul'16	Till date
2	National Institute of Technology (NIT) Agartala	Teacher, (During Ph.D.)	Feb'12	Dec'15
3	The George Telegraph Training Institute	Guest Faculty	Nov'08	Dec'11
4	Tripura University	Guest Teacher	Academic session 2011-12	
5	The AMCS	Guest Faculty	May'10	Feb'11

Industrial:

Details:

Sl. No.	Organization	Position Held	Duration	
			From	To
1	HCL Infosys	On job trainee Network Field Engineer (NFE)	Nov'08	Mar'09
2	Computer Maintenance Corporation (CMC) ATC, Agartala	Faculty Member	Sep'03	Mar'04

**Other Information:**

## Research Project

Principal Investigator (**PI**) of the research project entitled 'Low Cost Solar Powered Wheel Chair for Disabled and Elderly People', **The International Solar Innovation Council(InSIC)**, Finland,

## Patent

- Title: Ventilated Vertical Axis Wind Turbine  
Country: India  
Application no.: 201831021501  
**Patent no.: 443041**  
Date of grant: 04/08/2023
- Title: A heat-free composite daylight ingesting system  
Country: India  
Application no.: 652/kol/2015  
**Patent no.: 412576**  
Date of grant: 28/11/2022
- Title: Transportable hybrid Wind-solar power generation system  
Country: Australia  
**Patent number: 2021106548**  
Granted on: 17/11/2021
- Title: Air Activated Flat Vertical Axis Wind Turbine  
Country: India  
**Design no.: 361392-001**  
Published on: 28/03/2022  
Journal: No.- 25/2022, Date- 24/06/2022.
- Title: Sun Tracking Solar Panel  
Country: India  
**Design no.: 360226-001**  
Published on: 04/03/2022  
Journal: No.- 20/2022, Date- 20/05/2022.

## Publications

## Journals

- Dhriti Rudrapaul, **Shantanu Acharya**. “Characterization of a novel lift-drag-driven air-activated hybrid vertical-axis wind turbine”, **Sustainable Energy Technologies and Assessments (Elsevier)**, 2023, 59, Article No.: 103415.  
DOI: <https://doi.org/10.1016/j.seta.2023.103415>
- **S. Acharya**, Rikta Datta, Bishwamita Debnath. “Theoretical and experimental investigation of an integrated rainwater harvesting system for electricity and drinking water”, **Environmental Science and Pollution Research (Springer)**, 2023, 30, pp. 66359–66371.  
DOI: <https://doi.org/10.1007/s11356-023-27120-z>
- **S. Acharya**. “Analytic assessment of renewable potential in Northeast India and impact of their exploitation on environment and economy”, **Environmental Science and Pollution Research (Springer)**, 2022, 29, pp. 29704–29718.  
DOI: <https://doi.org/10.1007/s11356-022-18498-3>
- **S. Acharya**, A. Shil, C. Debbarma, J. Reang, R. Chakraborty, A. Ghosh. “Analysis of energy consumption, emission and saving opportunities in an educational institute in northeast India”, **International Journal of Energy and Water Resources (Springer)**, 2020, 4(4), pp. 375-388.  
DOI: <https://doi.org/10.1007/s42108-020-00086-1>
- Subhadeep Bhattacharjee, **Shantanu Acharya**, Anil Potar, Anurag Meena, Dhara Singh Bairwa, Dinesh Meena, Manish Bhagora, Pukhraj Meena, Prashant Kumar Gautam. “An investigational back surface cooling approach with different designs of heat absorbing pipe for PV/T system”, **International Journal of Energy Research (John Wiley & Sons)**, 2018, 42 (5), pp. 1921-1933.  
DOI: <https://doi.org/10.1002/er.3977>
- Subhadeep Bhattacharjee, **Shantanu Acharya**. “Performative analysis of an eccentric solar-wind combined system for steady power yield”, **Energy Conversion and Management (Elsevier)**, 2016, 108, pp. 219-232.  
DOI: <https://doi.org/10.1016/j.enconman.2015.11.023>
- Subhadeep Bhattacharjee, **Shantanu Acharya**. “PV–wind hybrid power option for a low wind topography”, **Energy Conversion and Management (Elsevier)**, 2015, 89, pp. 942-954.  
DOI: <https://doi.org/10.1016/j.enconman.2014.10.065>
- **Shantanu Acharya**, Subhadeep Bhattacharjee. “Stirling engine based solar-thermal power plant with a thermo-chemical storage system”, **Energy Conversion and Management (Elsevier)**, 2014, 86, pp. 901-915.  
DOI: <https://doi.org/10.1016/j.enconman.2014.06.030>
- **Shantanu Acharya**, Subhadeep Bhattacharjee. “Analysis and characterization of wind-solar-constant torque spring hybridized model”, **Frontiers in Energy (Springer)**, 2014, 8(3), pp. 279-289.  
DOI: <https://doi.org/10.1007/s11708-014-0312-z>
- **Shantanu Acharya**, Subhadeep Bhattacharjee. “Governmental support and challenges for growth of wind energy generation in India”, **Journal of Advanced Research in Electrical Engineering & Technology (Advance Research publication)**, 2014, 1(1), pp. 1-7.
- Rajib Dam Choudhury, **Shantanu Acharya**. “Vehicle pumped airmill for Electricity”, **Electrical India (Chary publication)**, 2008, 48(4), pp. 132-133.

## Book chapter

- **Shantanu Acharya**, Priya Debnath, Dipta Chakraborty, Rimpi Baishya, Sayan Deb. “Wireless Lighting System for Rural Households in India”, **Intelligent Computing and Communication Systems** [part of the Algorithms for Intelligent Systems book series (AIS)] (**Springer**), 2021, pp. 159-167.  
DOI: [https://doi.org/10.1007/978-981-16-1295-4\\_17](https://doi.org/10.1007/978-981-16-1295-4_17)  
Web link: [link.springer.com/chapter/10.1007/978-981-16-1295-4\\_17](https://link.springer.com/chapter/10.1007/978-981-16-1295-4_17)

## Conferences

- Dhriti Rudrapaul, **Shantanu Acharya**. “Study of an air-activated flat vertical axis wind turbine”, **IEEE GCON 2023. [IEEE Conf.]**, Indian Institute of Technology (IIT) Guwahati, Assam, India.  
DOI: <https://doi.org/10.1109/GCON58516.2023.10183452>
- **Shantanu Acharya**, Dr. Subhadeep Bhattacharjee, Dhritiman Adhya. “Solar thermal–wind–spring storage hybridized system for steady power yield”, **6<sup>th</sup> International Conference on Power System (ICPS) 2016. [IEEE Conf.]**, Indian Institute of Technology (IIT) Delhi, New Delhi, India.  
DOI: <https://doi.org/10.1109/ICPES.2016.7584083>
- Dhritiman Adhya, Dr. Subhadeep Bhattacharjee, **Shantanu Acharya**. “Back surface cooling of PV panel- an experimental investigation”, **6<sup>th</sup> International Conference on Power System (ICPS) 2016. [IEEE Conf.]**, Indian Institute of Technology (IIT) Delhi, New Delhi, India.  
DOI: <https://doi.org/10.1109/ICPES.2016.7584133>
- Subhadeep Bhattacharjee, Shubhashish Bhakta, **Shantanu Acharya**. “Performance assessment and experimental investigation of 1.2 kW<sub>p</sub> PV power plant in different loading conditions”, **4<sup>th</sup> International Conference on Advances in Energy Research (ICAER) 2013**, Indian Institute of Technology (IIT) Bombay, Mumbai, India. pp. 470-478.
- Dr. Subhadeep Bhattacharjee, **Mr. Shantanu Acharya**. “Energy Storage System for Wind Power Plant”, **2<sup>nd</sup> International Conference on Power, Control and Embedded Systems (ICPCES) 2012. [IEEE Conf.]**, Motilal Nehru National Institute of Technology (MNNIT) Allahabad, Uttar Pradesh, India. pp. 130-132.  
DOI: <https://doi.org/10.1109/ICPCES.2012.6508053>
- Dr. Subhadeep Bhattacharjee, **Mr. Shantanu Acharya**. “Exploring Wind Energy for Hybrid Power Generation in a Low Wind Regime”, **1<sup>st</sup> International Conference on Power and Energy in NERIST (ICPEN) 2012. [IEEE Conf.]**, North Eastern regional Institute of Science and Technology (NERIST), Nirjuli, Itanagar, Arunachal Pradesh, India.  
DOI: <https://doi.org/10.1109/ICPEN.2012.6492311>

## Ph. D. guidance

- 01 (Ongoing)

## Awards and recognitions

- RACE – 2022 India Award for ‘Emerging Scientist in Renewable Energy’ on Vth International Award Conference on Research, Analyze. Communicate and Evaluate Organized by Dolphin (PG) College of Science and Agriculture in collaboration with IARDO and Conference World.
- Motivated and mentored student who has been selected for MECS Entrepreneurship Development Programme in Clean Cooking 2022 organized by FINOVISTA.
- Mentored two startup ideas which were selected for funding by Govt. of Tripura.
  - Low-cost solar-PV powered wireless luminaries for needy rural people
  - Low-cost, cool safety helmet
- Best Researcher Award in International Scientist Awards on Engineering, Science and Medicine, Awarded by VDGGOOD on 06 and 07 March 2021, Goa, India.
- IIC Innovation Ambassador
- Reviewer of reputed journals like Applied Energy, Energy Conversion and Management, IEEE PES Transaction on Sustainable Energy, IET Renewable Power Generation, etc.
- Mentor ‘Yuva Innovator Challenge 2021’
- Mentor of finalist team in Smart India Hackathon 2019, Hardware Edition.
- Faculty mentor in DST & Texas Instruments’ ‘India Innovation Challenge Design Contest 2019’
- East zone finalist in National Level Hackathon ‘Tata Crucible Hackathon 2021’

(c). Professional membership of reputed bodies if any. NA