

Dr. Vivek Patel

- **Designation:** Assistant Professor
- **Experience:** 15 years & 4 months
- **Educational Qualification:** Ph.D.
- **Specialization:** Thermal Engineering, Solar Thermal Technology, Water Desalination
- **E mail ID:** vivek.patel@gperi.ac.in

Research

Paper Publication:

1. “Experimental and Theoretical Evaluation of Bubbler Humidifier for Humidification – Dehumidification Water Desalination System”. International Journal of Heat and Mass Transfer, Springer Link. **Link: <https://doi.org/10.1007/s00231-019-02659-1>.**
2. “Theoretical and Experimental Investigation of Bubble Column Humidification and Thermoelectric Cooler Dehumidification Water Desalination System”. International Journal of Energy Research, Wiley Publication. **Link: <https://doi.org/10.1002/er.4931>.**
3. “Mathematical modeling and performance assessment of solar air collector”. Indian Journal of Science and Technology, 13(18): 1803-1810. **Link: <https://doi.org/10.17485/IJST/v13i18.608>.**
4. "CFD Simulation of Dehumidification of Air in Humidification-Dehumidification Based Water Desalination System". Iranian Journal of Science and Technology, Transactions of Mechanical Engineering, Springer Link. **Link: <https://doi.org/10.1007/s40997-021-00454-0>.**
5. “Performance and Economic Analysis of Bubble Column Humidification and Thermoelectric Cooler Dehumidification Water Desalination System”. Journal of Thermal Science and Engineering Applications, ASME. Link: **<https://doi.org/10.1115/1.4052346>.**
6. “Performance assessment of conventional solar desalination system in Northern part of Gujarat”. Environmental Science and Pollution Research, Springer. Link: **[10.1007/s11356-021-17709-7](https://doi.org/10.1007/s11356-021-17709-7).**

Paper Presentation:

1. “Blow Molding”. National Conference on Emerging Trends in Mechanical Engineering, 28-29 March 2008, G.H. Patel College of Engineering and Technology, Vallabh Vidhyanagar, Gujarat.

2. “Experimental Investigation of Humidification Process by Air Passing through Saline Water”. 2nd International Conference on Desalination and Environment, 23-26th Jan 2016, Doha, Qatar.
3. “Theoretical and Experimental study on the influence of thermo-electric cooling dehumidifier on HDH water desalination system”. 12th International Conference on Thermal Engineering: Theory and Applications, 23-26th February 2019, PDPU, Gandhinagar.

Grant Received

1. Seminar - Two Days Seminar on "Advanced Simulation Process and Solutions", funded by GUJCOST-DST 2018 (Grant No. GUJCOST/Sem-Sym 1738/2018-19/1148).
2. Seminar - Three Days Seminar on "Potential Need for Electrical Vehicles, its Future Challenges and Opportunity for the Indian Market”, funded by GUJCOST-DST 2018 (Grant No. GUJCOST/Seminar Grant 2076/2018-19/2423).
3. Research project grant on “Performance enhancement of single basin solar still using reflectors, sensible heat storage material and TEC based condenser” under Seed money scheme. Funded by GTU-2021 (Grant No. GTU/IQAC/SMS/Sanction Letter/2021/7480)

Professional Contribution

1. Reviewer in the International Conference on Advances in Thermal-Fluids Engineering (ATFE 2021) from March 25-26, 2021 organized at Pandit Deendayal Energy University, Gandhinagar.
2. Reviewer in the Sigma International Multi Disciplinary Research Journal, SIGMA Group of Institutes, Vadodara.
3. Reviewed the course proposal on “Machinist and Fitter” submitted at Center for Continuing Education (CCE), GTU.

4. Seminars/Workshops/Training Programs attended:

Sr. No.	Name	Month & Year	Title
1.	Society for promotion and Technical Education & Research	November 2007	Induction Training
2.	SPEC – AMA Youth Empowerment Programme	May 2008	Youth Empowerment Programme
3.	AICTE Summer School, NIT Jaipur	June-July 2008	Alternate Automobile Fuels
4.	Patent search Methodology by GTU	September 2009	Patent Search Methodology
5.	Short term training Programme, SVNIT	November 2009	Engineering Drawing
6.	ISTE Workshop conducted by IIT Bombay	December 2012	Engineering Thermodynamics
7.	TEQIP Sponsored continuing Education, SVNIT	June-July 2014	Computational Fluid Dynamics
8.	Faculty Development Program by GTU	September 2015	Design Engineering

9.	GUJCOST Seminar, GPERI	March 2018	Policy Planning and Potential of Renewable Energy Systems in India
10.	Workshop, PDPU	April 2018	Thermal –Hydraulic Modeling & Simulation of Thermal Power Plants
11.	Workshop, GPERI	August 2018	Advanced Simulation Processes
12.	Faculty Development Program, SIEMENS	October 2018	Essentials for NX Designers
13.	Seminar, GERMI	October 2018	Concentrating Solar Thermal Technology
14.	Training Program, AISE	December 2018	Solar Thermal Technology- Domestic and Industrial
15.	Training Program, AISE	Jan-Feb 2019	Solar PV Power Plant
16.	Workshop, GPERI	March 2019	Potential Need for Electric Vehicles
17.	Webinar, PDEU	November 2020	Effective Scientific Writing and Strategies of Research Papers \ Publications in High Impact Journals
18.	AICTE Training And Learning (ATAL) Academy	January 2021	CFD
19.	Webinar, PDEU	February 2021	Low-Cost Renewable Energy Driven (Lc-Red) Wastewater Treatment Options
20.	STTP, GUJCOST	February 2021	Futuristic Innovations on Solar Energy Technologies

5. Performed duty as a Project officer & Member Secretary – Anchor Institute of Solar Energy
6. Lifetime member of Indian Society for Technical Education (ISTE)
7. Lifetime member of Society for Promotion of Technical Education & Research (SOPTER)

Achievements

1. Oxygen audit work has been carried out in order to find the gap between supply and consumption of oxygen and to make a real time analysis of oxygen consumption & loopholes during COVID-19 at various civil hospitals.
2. Provided the technical support to 46 teams formed by GTU for the purpose of oxygen audit work at various civil hospitals across the Gujarat.