

---

**Dr. Parag Jyoti Bezbaruah, PhD., M.Tech., B.Tech.**

Senior Faculty-OCFP, Orchids The International School

Current CTC: 7.5 Lakhs Per annum

E-mail: [bezbaruahparag@gmail.com](mailto:bezbaruahparag@gmail.com)

Contact No: +91-9436316115/+91-8638278880

Orcid: <https://orcid.org/0000-0001-7591-6791>ResearchGate: <https://www.researchgate.net/profile/Parag-Bezbaruah-2>**Profile:**

A highly motivated and an enthusiastic doctorate seeking exposure to a progressive and an esteemed institution, which will provide me an opportunity to apply my knowledge and skills and will keep me abreast with latest trends and technologies. I am a central university gold medallist in M.Tech and a doctorate from Mechanical Engineering Department, National Institute of Technology Meghalaya. My research work was based on developing a highly efficient solar air collector to abate the electricity consumption by minimizing the heat load requirement for space heating. The structure was modelled and simulated using ANSYS FLUENT and was validated experimentally. The work was published in some renowned journals like Renewable Energy, Heat and Mass Transfer, Solar Energy etc. Along with a doctorate degree, I also have an industrial experience of 1.5+ years and a teaching experience for a semester as an Assistant Professor in Swami Keshvanand Institute of Technology, Jaipur. Right now, I am working as a Senior faculty-OCFP in Orchids The International School, Bengaluru.

**Subject of Interest:**

- Solar thermal applications
- Computational fluid dynamics
- Renewable energy
- Heat transfer
- Energy management and audit
- Refrigeration and Air conditioning
- Thermal Engineering
- Optimisation Techniques
- Fluid mechanics

**Professional Experience:****EXPERINCE (2+YEAR)**

- Senior faculty- OCPF at Orchids the International School from 7<sup>th</sup> February till date.
- As an Assistant Professor at Swami Keshvanand Institute of Technology, Jaipur from 27<sup>th</sup> September 2021 to 12<sup>th</sup> January 2022.
- Guest Faculty at North East Hill University, Meghalaya from 1<sup>st</sup> October 2015 to 9<sup>th</sup> January 2016 (4 months).
- As a JRF in Tezpur University, Assam, from 24 June to 24 September 2015 (4 months).
- As a JRF in Madras School of Economics, Chennai from 1<sup>st</sup> June to 30<sup>th</sup> June 2015 (1 month).
- Project & Maintenance Engineer at R. K. Marble Pvt Ltd., Ajmer from 9<sup>th</sup> December 2010 to 26<sup>th</sup> May 2012 (18 months).

### Computer skills:

- Completed a short term course on AutoCAD, Pro-E Wildfire 4.0 and Catia V5 R19.0 from CIPET, Jaipur.
- A certified course on Microsoft Office.
- ANSYS FLUENT.

### Educational Background:

Examination	Board/University	Year of passing	Percentage/CGPA and Achievements
Doctor of Philosophy in Mechanical Engineering.	National Institute of Technology Meghalaya	2021	9.00
Master of Technology in Energy Technology	Tezpur University	2015	9.33 (Gold Medallist)
Bachelor of Technology in Mechanical Engineering	Rajasthan Technical University	2010	68% (Institute academic winner)
HS (12 <sup>th</sup> )	CBSE	2006	76.2%
HSLC (10 <sup>th</sup> )	CBSE	2004	83%

### Academic Achievements and Accolades:

- Recipient of “International Travel Support” funded by SERB-DST, Govt. of India to attend the 14<sup>th</sup> International Conference on Heat Transfer, Fluid mechanics and Thermodynamics (HEFAT 2019) in Ireland.
- Best paper presentation award in ICRIDME 2019 organized by NIT Meghalaya.
- Best presentation award in ICAER 2017 organized by IIT Bombay.
- University Gold Medallist award for the academic year 2013-2015 from Tezpur Central University.
- Qualified “Graduate Aptitude Test in Engineering (GATE) 2013” in Mechanical Engineering
- Academic Excellence Award for securing the second rank in B.Tech third year and first rank in B.Tech final year.

### Training & Workshops:

- Participated in the five-day Faculty Development Programme on “Robotics and Mechatronics in Manufacturing” held from 15<sup>th</sup> November to 19<sup>th</sup> November at Swami Keshvanand Institute of Technology, Management & Gramothan, Jaipur.
- Successfully completed AICTE Training And Learning (ATAL) Academy Online Elementary FDP on "3D Printing Basics and Applications" from 25<sup>th</sup> to 29<sup>th</sup> October 2021 at MBM Engineering College Jodhpur.
- Successfully completed AICTE Training And Learning (ATAL) Academy Online Elementary FDP on "Artificial Intelligence in the Renewable Power Generation" from 18<sup>th</sup> to 22<sup>nd</sup> October 2021 at University of Lucknow.
- Successfully completed the 4-day training webinar on TRNSYS produced by Thermal Energy System Specialists on April 26<sup>th</sup> through April 29<sup>th</sup> 2021.

- Participated in the conclave on “Transforming Meghalaya State through Science & Technology Interventions” organised by North East Centre for Technology Application and Reach (NECTAR) on April 9<sup>th</sup>-10<sup>th</sup> 2021.
- Attended a short-term course under TEQIP-III on “Advances in Energy Storage Technology” held from 9<sup>th</sup> March to 13<sup>th</sup> March 2020 at IIT Delhi.
- Participated in a workshop under TEQIP-III on “Hands in Training on ANSYS for Computational Fluid Dynamics” held from 6<sup>th</sup> September to 10<sup>th</sup> September 2019 at NIT Meghalaya.
- Participated in a workshop on “Engineering Design and Simulation” organized by NIT Meghalaya and ELMAX on 7<sup>th</sup> March 2018.
- Attended a “Solar Awareness Training Programme on Off Grid Solar Energy Technologies” sponsored by MNRE and conducted by National Power Training Institute from 20<sup>th</sup> Feb to 22<sup>th</sup> Feb 2017.
- Participated in a workshop on “Advances in Applications of Computational Fluid Dynamics” held from 7<sup>th</sup> November to 11<sup>th</sup> November 2019 at NIT Silchar.
- Successfully completed training on “Functioning and Maintenance of Solar Radiation Resource Assessment Station” organized by CWET, Chennai on 3<sup>rd</sup>-4<sup>th</sup> July 2014.
- Participated in a Indo-Finnish workshop on “Green Chemistry” held from 13<sup>th</sup> December to 14<sup>th</sup> December 2013 at Tezpur University.
- B. Tech 6<sup>th</sup> semester Industrial training from “Bongaigaon Refinery (IOCL)” for a period of 30 days from 29/05/2009 to 30/06/2009.
- B.Tech 4<sup>th</sup> semester Industrial training from “Bongaigaon Refinery Petrochemical Limited” for a period of 30 days from 16/06/2008 to 16/07/2008.

### Research Highlights:

#### A. Reviewer of the following journals

- Heat and Mass Transfer [Springer]
- Applied Solar Energy [Springer]
- International Journal of Heat and Mass Transfer [Elsevier]
- Journal of Thermal Science and Engineering Applications [ASME]
- Solar Energy [Elsevier]
- Renewable Energy [Elsevier]

#### B. List of Publications

##### ❖ Journal Papers

1. **Bezbaruah, P.J., Das, R.S. & Sarkar, B.K.**, “Experimental and numerical analysis of solar air heater accoutered with modified conical vortex generators in a staggered fashion,” *Renewable Energy*, vol. 180, pp. 109-131, 2021. **(SCI, IF: 8.001)**
2. **Bezbaruah, P.J., Das, R.S. & Sarkar, B.K.**, “Experimentally validated 3D simulation and performance optimization of a solar air duct with modified conical vortex generators,” *Solar Energy*, vol. 224, pp. 1040-1062, 2021. **(SCI, IF: 5.742)**

3. **Bezbaruah, P.J.**, Das, R.S. & Sarkar, B.K., "Overall performance analysis and GRA optimization of solar air heater with truncated half conical vortex generators," *Solar Energy*, vol. 196(15), pp. 637-652, 2020. **(SCI, IF: 5.742)**
4. **Bezbaruah, P.J.**, Borah, D. & Baruah, D.C., "An Experimental Investigation to Check the Overall Performance of a Packed Bed Solar Air Heater", *Applied Solar Energy*, vol. 56(6), pp. 431-441, 2020. **(SCOPUS)**
5. **Bezbaruah, P.J.**, Das, R.S. & Sarkar, B.K., "Solar air heater with finned absorber plate and helical flow path: A CFD analysis," *Applied Solar Energy*, vol. 56(1), pp. 35-41, 2020. **(SCOPUS)**
6. **Bezbaruah, P.J.**, Das, R.S. & Sarkar, B.K., "Thermo-hydraulic performance augmentation of solar air duct using modified forms of conical vortex generators," *Heat Mass Transfer*, vol. 55, pp. 1387-1403, 2019. **(SCI, IF: 2.464)**
7. **Bezbaruah, P.J.**, Das, R.S. & Sarkar, B.K., "Thermal and fluid flow dynamics of miller teeth shaped ribbed solar air heater-A CFD analysis," *Journal of Scientific and Industrial Research*, vol. 78(10), pp. 694-698, 2019. **(SCI, IF: 1.056)**

#### ❖ Book Chapters

1. **Bezbaruah, P.J.**, Das, A., Das, R.S. & Sarkar, B.K., "Numerical investigation on triangular fin based solar air heater," In: Singh S., Ramadesigan V. (eds) *Advances in Energy Research*, Vol. 2. Springer, Singapore, pp. 341-351, 2020.
2. **Bezbaruah, P.J.**, Patowary, R., Borah, D. & Baruah, D.C., "Thermohydraulic performance of packed bed solar air heater," In: Singh S., Ramadesigan V. (eds) *Advances in Energy Research*, Vol. 2. Springer, Singapore, pp. 323-339, 2020.
3. **Bezbaruah P.J.**, Das R.S., Sarkar B.K., "CFD-Based Study on Thermal and Fluid Flow Dynamics Due to Miller Teeth Shaped Ribs Over Absorber Plate of Solar Air Collector," In: Biswal B., Sarkar B., Mahanta P. (eds) *Advances in Mechanical Engineering. Lecture Notes in Mechanical Engineering*, Springer, Singapore, pp. 1045-1053.

#### ❖ Conference Papers

1. Bhandarkar A.C., **Bezbaruah P.J.**, Sarkar B.K., Das R.S., "Solar air heater system control for space heating application in Shillong" *8th International and 47th National Conference on Fluid Mechanics and Fluid Power (FMFP)*, IIT Guwahati. Paper ID: 154"
2. **Bezbaruah P.J.**, Gupta A.K., Das R.S., Sarkar B.K., "CFD analysis of solar collector with truncated hemispherical vortex generators" *Proceedings of 14<sup>th</sup> International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT 2019)*, pp. 265-270. Paper ID: 348, July 21-24, 2019, **Wicklow, Ireland.**
3. **Bezbaruah P.J.**, Kumar R., Das R.S., "Thermohydraulic performance analysis of solar air heater with helical roughness," *Proceedings of the 25<sup>th</sup> National and 3<sup>rd</sup> International ISHMT-ASTFE Heat and Mass Transfer conference (IHMTTC-2019)*, pp. 233-237, 2019
4. **Bezbaruah P.J.**, Das R.S., Sarkar B.K., "Numerical Analysis of Solar Triangular Air Duct with Conical Turbulators," *2nd International Conference on Power, Energy and Environment: Towards Smart Technology (ICEPE)*, Shillong, India, pp. 1-5, 2018.
5. Gupta A.K., **Bezbaruah P.J.**, Das R.S., Sarkar B.K., "Numerical Investigation on Solar Air Heater with Hemispherical Roughness," *2nd International Conference on Power, Energy and Environment: Towards Smart Technology (ICEPE)*, Shillong, India, pp. 1-6, 2018.

**Projects:**

- PhD project entitled “*Studies of the Thermohydraulic Performance of Solar Air Heater with Novel Vortex Generators*”.
- State Council of Science, Technology & Environment Meghalaya sanctioned Rs. 97,834/-for the project entitled “*Solar Based Room Heater Cum Food Drier with Energy Storage Unit*”.
- M.Tech major project on “*Thermohydraulic Performance of Packed Bed Solar Air Heater*”.
- B.Tech major project on “*Integration of CHP (Combined Heat & Power) and Building Simulation for Predicting the Energy Requirement of a Residential Building*” as part of the University curriculum.

**Personal information:**

- Nationality : Indian
- Marital Status : Married
- Date of Birth : March 6, 1988
- Sex : Male
- Present address : Bengaluru, Karnataka

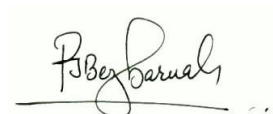
**Declaration:**

I hereby declare that the information given above is true to the best of my knowledge. I will make it my earnest endeavour to discharge competently and carefully the duties, you may be pleased to entrust with me.

**Referees:**

Name	Designation	Address	Contact Details
Dr. Debendra C Baruah	Professor	Tezpur University	+91-9435508563 baruahd@tezu.ernet.in
Dr. Rajat Subhra Das	Asst. Professor	NIT Meghalaya	+91-9402102380 rajatsubhra@nitm.ac.in
Dr. Bikash Sarkar	Asst. Professor	NIT Meghalaya	+91-9485177038 bikash.sarkar@nitm.ac.in
Dr. Dheeraj Joshi	Professor	SKIT, Jaipur	+91-9460355422 hodme@skit.ac.in

**Date: 08-02-2022**  
**Place: Bengaluru**



**Signature of Candidate**