

Profile details

Assistant Professor
Department of Mechanical Engineering Tezpur University,
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Industrial Exposure :

Organization : Oil India Limited (OIL, Duliajan)

Tenure : 2 months

Profile : Summer Trainee

Successfully completed the project within the stipulated time inspite of many hurdles.

Projects Undergone :

- A project named as “Study of efficiency of two stage double acting reciprocating compressor” in OIL, Duliajan.
- A project in the area of Heat Transfer using C-Programming Undergone a project in Diesel Engine using Numerical Methods
- A project in the field of “Darrieus-Savonius wind rotor”.
- A project on the study of thermal analysis of Solar water heater.

Papers/Presentations:

1. Journal Publication

- ❖ Shikha Bhuyan, Agnimitra Biswas, “Investigations on self-starting and performance characteristics of simple H and hybrid H-Savonius vertical axis wind rotors”, Energy conversion and Management, Vol 87,pp 859–867. DOI: 10.1016/j.enconman.2014.07.056
- ❖ Dikshita Nath, Danish Ansar, Biswajit Das, Shikha Bhuyan, “Experimental analysis of solar water heater with compound parabolic concentrator”, EAI Endorsed Transactions on Energy webs, 2020. DOI: 10.4108/eai.13-7-2018.165513

2. Conference proceedings

- ❖ Shikha Bhuyan, Agnimitra Biswas, “**CFD analysis of cambered airfoil for H-rotor VAWT**”, International conference in Industrial Engineering in Science and Applications, NIT Durgapur, 2-4 April 2014.
- ❖ Shikha Bhuyan, Agnimitra Biswas, “**Performance evaluation of combined Savonius-H-rotor**”, FMFP 2014, 5th International and 41st National conference, IIT Kanpur ,12th- 14th December 2014.
- ❖ Shikha Bhuyan, Dipankar Narayan Basu, “**Study of flow behavior of natural convection for different Prandtl number using lattice Boltzmann method**”, 1st national conference in Sustainable Mechanical Engineering: Today and beyond (SMETB), March 24-25, 2017, Tezpur University.
- ❖ Shikha Bhuyan, Dipankar Narayan Basu, “**Numerical analysis of effect of Prandtl number on Natural convection using lattice Boltzmann method**”, 24th National and 2nd International ISHMT-ASTFE heat and mass transfer conference (IHMTTC-

2017), December 27-30, 2017, BITS Pilani, Hyderabad.

- ❖ Arupjiyoti Das, Shikha Bhuyan, “**Performance analysis of mixed convection in T-shaped geometry for entropy generation using Lattice Boltzmann method**”, International Conference on Recent Innovations and Developments in Mechanical Engineering *NIT Meghalaya, Shillong, India, November 8 – 10, 2018.*
- ❖ Shikha Bhuyan, Dibyakanta Moran, Bishal Dutta, Saunik Neerat, “ **Experimental investigation of low cost designed solar water heater with V-trough system in Assam, India- A thermal analysis**”, 7th International and 45th National Conference on Fluid Mechanics and Fluid Power (FMFP) December 10-12, 2018, IIT Bombay, Mumbai, India.
- ❖ Shikha Bhuyan, Dipankar Narayan Basu, “**Numerical analysis of mixed convection flow using non-Boussinesq approximation lattice Boltzmann method**”, 25th National and 3rd International ISHMT-ASTFE Heat and Mass Transfer Conference (IHMTTC-2019), December 28-31, 2019, IIT Roorkee, Roorkee, India.

3. Lecture presentation

Shikha Bhuyan, “**Darrieus Rotor-A review in its various design and performance parameters**”, Renewables in Science and Engineering, 10-14 January 2014 at NIT Silchar.

Seminar/Workshop attended:

- Attended seminars in Nano-Fluids, Indian Foreign Policy, 2009.
- Participated in Automotive Workshop organized during Tech-Xetra, 2010, a Technical fest at Tezpur University.
- Attended seminar in ‘black holes’ in March’2011 held at Tezpur University.
- Attended one day awareness programme on ‘Industry Oriented Piping Engineering’, February-2013.
- Attended workshop on CAD/CAM/CAE using Creo 2.0 (PRO-E), August-2013.
- Attended workshop on COMSOL at Reflux-2016, IIT Guwahati in March 2016.
- Attended 2 weeks course in Boiling heat transfer, May 2016.
- 1 week STTP on “Assessment tools for outcome based education”, NITTTR Kolkata, 27 February-03 March 2017.
- AICTE Approved Faculty Development Programme on Foundation Program in ICT for Education conducted by IIT Bombay from 03.08.2017 to 07.09.2017.
- Attended pre-conference short term course on Multigrid methods and GPU computing, IHMTTC 2017, 26-27 December 2017.
- One week FDP on “Advances in Renewable Energy Technologies and systems”, Department of Energy, Tezpur University, 19-14 February 2018.
- MHRD Sponsored Induction Training of Faculty Conducted by the Teaching-Learning Centre, Tezpur University from 26.11.2018 to 26.12.2018.
- Attended 1 week FDP on Refrigeration and Air conditioning, IIT Guwahati, 2-6 July, 2018.

Educational qualification

- **Pursuing Ph.D in Mechanical Engineering from IIT Guwahati.**
- **M.Tech in Thermal Engineering from Department of Mechanical Engineering, NIT Silchar, 2014 with CPI 9.4.**
- **Qualified GATE-2012, GATE-2013.**
- **B.Tech in Mechanical Engineering from Tezpur University, 2011 with CGPA 8.22.**
- 10+2 (Science) from KV Khanapara, CBSE in 2006 with 72%
- 10 from KV Khanapara, CBSE in 2004 with 75%

Personal Details

Date of Birth : 5th September, 1988
Languages Known : English, Hindi, Assamese, Bengali.
Hobbies : Reading , Net Surfing, Travelling. Singing, Cooking.
Area of interest : Thermodynamics, Fluid Mechanics.
Contact : shikha5@tezu.ernet.in

Place: Tezpur

Shikha Bhuyan