RESUME

DR. DEVA KANTA RABHA

Associate Professor

Department of Mechanical Engineering

Jorhat Engineering College

Jorhat-7, Assam

e-mail: devaktra@gmail.com

(A) Educational Qualification:

- Ph.D., Mechanical Engineering, Development and performance investigation of a solar dryer integrated with latent heat storage, Indian Institute of Technology Guwahati, India, August, 2017.
- M. Tech., Energy Technology, Tezpur University, Tezpur, India, July, 2004.
- B.E., Mechanical Engineering, Assam Engineering College, Guwahati, India, December, 2001.

(B) Professional Experience:

1. Working as **Associate Professor in** the Department of Mechanical Engineering, **Jorhat Engineering College**, Jorhat, Assam since 2nd October 2020 till date.
2. Worked as **Assistant Professor in** the Department of Mechanical Engineering, **Jorhat Engineering College**, Jorhat, Assam from from 2nd October 2007 to 2nd October 2020.
3. Worked as **Assistant Manager** in **Assam Power Generation Corporation Ltd.** from 1st May 2007 to 31st October 2007. Posted in Namrup Thermal Power Plant, Assam.
4. Worked as **Engineer** in Operation and Maintenance Engineering Department of Wind Turbine, **Suzlon Wind Firm Service Ltd.** from 15th May 2006 to 15th November 2006.
5. Worked as **Project Associate** in **National Productivity Council**, regional office Guwahati, from 22 nd December 2004 to 21st March 2006. Involved in monitoring and supervision of the implementation of **Accelerated Power Development and Reform Program (APDRP)** in Assam and conducted Energy Audit.

(C) International Journal (SCI)

1. G. Srinivasan, **D.K. Rabha**, P. Muthukumar (2021). A Review on Solar Dryers Integrated with Thermal Energy Storage Units for Drying Agricultural and Food Products. **Solar Energy**, https://doi.org/10.1016/j.solener.2021.07.075
2. **D.K. Rabha** (2021), Performance investigation of a passive-cum-active dryer with a biomass-fired heater integrated with a plate heat exchanger. **Renewable Energy**, 169, 598-607. https://doi.org/10.1016/j.renene.2020.12.126
3. **D.K. Rabha,** P. Muthukumar (2017). Performance studies on a forced convection solar dryer integrated with a paraffin wax - based latent heat storage system. **Solar Energy,**149:214–226. **https://doi.org/10.1016/j.solener.2017.04.012.**
4. **D.K. Rabha**, P. Muthukumar, C. Somayaji (2017). Experimental investigation of thin layer drying kinetics of ghost chill pepper (Capsicum Chinense Jacq.) dried in a forced convection solar tunnel dryer. **Renewable Energy,** 105: 583–589. https://doi.org/10.1016/j.renene.2016.12.091.
5. **D.K. Rabha**, P. Muthukumar, C. Somayaji (2017). Energy and exergy analyses of the solar drying processes of Ghost Chilli Pepper and Ginger. **Renewable Energy** 105: 764–773. https://doi.org/10.1016/j.renene.2017.01.007.

(D) Book Chapter (Conference Proceedings)

1. **D. K. Rabha**, P. Goswami, S. Ullah, S. Basak, J. Raj. Baruah (2021). Experimental Investigation of the Performance of a Low-Cost Flexible All Plastic Solar Air Heater. **Recent Advancements in Mechanical Engineering**, under publication, Springer.
2. M. Das and **D. K. Rabha**. (2021). Mathematical modeling and simulation of the drying process of tea leaves in a batch-type tray dryer. **Advances in thermo-fluids and Renewable Energy**, Springer Nature,
3. Parag K. Talukdar, Nur Alom, Umang Rathod, Vinayak Kulkarni, **D. K. Rabha,** Polash Saikia (2021) Performance Estimation of Vertical-axis Drag-based Savonius Wind Turbines (VSWT) through Wind Tunnel Testing. **Advances in thermo-fluids and Renewable Energy**, Springer Nature.
4. R. Kalita, P.B. Barua. **D.K. Rabha** (2021), Review of Performance of a Single Basin Passive Solar Still. **Emerging Technologies in smart cities**, Springer Nature, pp 187-196. https://doi.org/10.1007/978-981-16-1550-4_20.
5. D. Sarma, P. B. Barua, **D. K. Rabha**, N. Verma, S. Purkayastha and S. Das (2021), Flat Plate Solar Thermal Collectors – A Review. **Emerging Technologies in smart**

cities, Springer Nature, pp 177-207. https://doi.org/10.1007/978-981-16-1550-4_20.

6. **D. K. Rabha**, D. Pathak, R. Baruah,T. Kalita, A.Sharma (2018), Experimental Investigation of the Performance of a Double-Pass Unglazed Transpired Solar Air Heater, **Advances in Fluid and Thermal Engineering**, Springer Nature, pp 571-584. https://link.springer.com/chapter/10.1007/978-981-13-6416-7_53.
7. **D.K. Rabha** and P. Muthukumar (2018), Feasibility Study of the Application of a Latent Heat Storage in a Solar Dryer for Drying Green Chili. 2nd International conference of energy, power and environment, (ICEPE-2018), 1-2 June, NIT Meghalaya. **IEEE *Xplore*.** https://doi.org/10.1109/EPETSG.2018.8658770**.**

(E) International Conference

1. **D. K. Rabha**, B. K. Singh, A. A. Hazarika, A. H. Laskar, S. Dutta. (2018) Drying of Black Pepper in Box Type Solar Dryers with and Without Latent Heat Storage. International Conference on Renewable & Alternate Energy (ICRAE-2018). Assam Science and Technology University (ASTU), Guwahati, Assam, India. 4-6 December, 2018.
2. **D.K. Rabha**, P. Muthukumar, C. Somayaji (2015). Design and analytical study of a solar dryer integrated with shell and tube paraffin based latent heat storage for drying chilli. Proceedings of the 23rd National Heat and Mass Transfer Conference and 1st International ISHMT – ASTFE Heat and Mass Transfer Conference (IHMTC-2015) 17–20 December, 2015, Liquid Propulsion Systems Centre, Indian Space Research Organization, Thiruvananthapuram, India.

(F) R & D Project

1. Design, Development and Testing of a Batch Type Green Tea Leaves Steamer and Dryer, awarded by **AICTE** under **RPS-NER** (undergoing). **(Principal Investigator) (23 Lakhs)**

2. Development and Testing of a Passive Dryer with Biomass Heater, awarded by Assam Science and Technology University (ASTU) under **TEQIP-III** (Completed). **(Principal Investigator). (2.805 Lakhs)**

3. Development and Testing of Multi-burner Cooking Mud stove with Chimney funded by Bright spark Energy Private Limited **(Principal Investigator) (Completed) (1.5 Lakhs).**

4. Aerodynamic Performance Evaluation of Savonius Vertical-axis Rotor for Small-scale Power Generation awarded by National Project Implementation Unit (Co-PI) (Completed). **(4.48 Lakhs).**

(G) Membership

1. Indian Society of Heating, Refrigerating and Air Conditioning Engineers (ISHRAE)
2. Life Member of Solar Energy Society of India (SESI), New Delhi.
3. **Certified Energy Auditor** under Bauru of Energy Efficiency, Govt. of India.

(H) Reviewer of International Journal

1. Journal of food processing and preservation
2. Journal of Heat Transfer,

(I) Additional Responsibilities/ Administrative Duties

1. Superintendent of Hostel No-5, JEC
2. Coordinator of Unnat Bharat Abhiyan, JEC
3. Faculty coordinator of the Start-up cell of JEC

(J) Course Taught:

Basic Thermodynamics, Applied Thermodynamics-I, Applied Thermodynamics-II, Power Plant Engineering, Fluid Mechanics, Advanced Fluid Mechanics, Hydraulics Machines, I.C Engines, and Energy systems and Management.

(K) Training Program Attended from 2020 onwards

	Title of the course	**Training duration**	**Organized by**
1.	Green Technology & Sustainability Engineering"	5 days	AICTE Training and Learning (ATAL) Academy
2.	Experimental and computational Methods in Fluid Flow and Heat Transfer in Engineering Applications	5 days	NIT, Manipur
3.	Design and Development of content for e-Learning	10 days	NIIITR, Kalkata
4.	Advanced Solar Collectors"	5 days	IIT Guwahati
5.	Recent trends in renewable energy utilization Technologies	5 days	IIT Guwahati
6.	Faculty development program		IIT, Madrass
7.	Energy conservation and waste heat recovery	12 weeks	Swayam
8.	Induction training	10 days	NITTTR, Kalkata

Date : 28.08.2021

(Dr. Deva Kanta Rabha)
Associate Professor
Department of Mechanical Engineering
Jorhat Engineering College
Jorhat-7