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EDUCATION

Degree	Institute/ Board	CGPA/Percentage	Year
M. Tech (Rural Technology)	Indian Institute of Technology Guwahati	9.78	2020
B. Tech (Mechanical Engineering)	Dibrugarh University Institute of Engineering and Technology	9.3	2016
Senior Secondary	AHSEC	79.4%	2012
Secondary	SEBA	91.5%	2010

PUBLICATIONS

- **Bordoloi, U.**, Das, D., Kashyap, D., Patwa, D., Bora, P., Muigai, H., Kalita, P., Synthesis and comparative analysis of biochar based form-stable phase change materials for thermal management of buildings, ***Journal of Energy Storage***, 55,105801, 2022.
- Patwa, D., **Bordoloi, U.**, Dubey, AA., Ravi, K., Sekharan, S., Kalita, P., Energy-efficient biochar production for thermal backfill applications, ***Science of The Total Environment***, 833, 155253,2022.
- **Bordoloi, U.**, Kalita, P., Experimental Investigation on the Stability of Biocomposite Phase Change Materials for Building Applications. In: 15th International Green Energy Conference, Glasgow, UK, ***Springer Nature Switzerland***, 137-147,2023.
- **Bordoloi, U.**, Das,B., Kalita, P., Enhancing thermal comfort in buildings through the integration of phase change material on the building envelope: a simulation study. In: International Conference on Sustainable Energy and Green Technology 2023, Vietnam, ***IOP Conference Series: Earth and Environmental Science (EES)***,2024.
- **Bordoloi, U.**, Das,B., Kalita, P., Thermal performance investigation of biocomposite phase change material incorporated autoclaved aerated concrete bricks in a simulated environment. In: 2nd International Conference on Innovations in Clean Energy Technologies, ***Springer conference proceeding***, Bhopal, 2023.
- Banik, R.K., Das,S., **Bordoloi,U.**, Das,H.J., Das,B., Basumatary,S., Das,B., Kalita,P., The Promising Role of Thermochemical Conversion in Sustainable Power Generation, ***Challenges and Opportunities of Distributed Renewable Power***, Springer Nature Singapore, 101-140, 2024.
- Kamble,A.D., Das,S., Vijaya, Das,B., **Bordoloi,U.**, Hazarika,P., Kalita,P., Role of Solar Energy in the Development of the Indian Economy, ***Challenges and Opportunities of Distributed Renewable Power***, Springer Nature Singapore, 489-535, 2024.
- Kalita, P., Kashyap, D., **Bordoloi, U.**, Thermal Energy Storage Systems for Cooling and Heating Applications, ***Energy Storage***, 149-199, 2021.
- Kalita, P., Das D., Das S., Banik RK., **Bordoloi U.**, Heat Transfer Analysis in Solar Thermal Collectors, ***Advances in Sustainable Energy***, 251-277,2021.
- Muigai, H., **Bordoloi, U.**, Hussain, R., Ravi, K., Moholkar, V., Kalita, P., A comparative study on the physicochemical characterization of biochars derived from lignocellulosic biomass for their candidacy in agronomy and energy applications, ***International Journal of Energy Research***,2021.
- Das, D**., Bordoloi, U.**, Muigai, H., Kamble, A.D., Kalita, P. Performance investigation of a rectangular spiral flow PV/T collector with a novel form-stable composite material, ***Applied Thermal Engineering***, 182, 116035, 2021.
- Das, D**., Bordoloi, U.,** Muigai, H., Kalita, P. A novel form-stable PCM based biocomposite material for solar thermal energy storage applications, ***Journal of Energy Storage,***30,101403,2020.
- Das, D., **Bordoloi, U.**, Kalita, P., Boehm, R., Kamble, A.D. Solar still distillate enhancement techniques and recent developments, ***Groundwater for Sustainable Development,***10,100360,2020.

PATENT

- Development of novel biocomposite form-stable phase change material from locally available biomass for thermal energy storage applications (**Reference no. 202331021892**)

EXPERIENCES

- Guest Lecturer at Dibrugarh Polytechnic under the Directorate of Technical Education, Assam (2017-2018)
- Trainee at Brahmaputra Valley Fertilizer Corporation Limited, Namrup (January 2015)

PROJECTS

- **Development of biocomposite material for thermal energy storage,** *June 2020*

  Mentor Name: Dr. Pankaj Kalita, Assistant Professor, SESE, IIT Guwahati
- **Design and fabrication of multipurpose crop harvester,** *June 2016*

  Mentor Name: Mr Rupam Deka, Assistant Professor, ME, DUIET
- **Development of Ultra-High Molecular Weight Polyethylene Silicon Carbide biocomposite using compression moulding,** *July 2015*

  Mentor Name: Dr. M. Ravi Sankar, Assistant Professor, ME, IITG
- **Different gasifiers for utilization of resources and optimization of existing biomass gasification,** *Dec 2018*

TECHNICAL SKILLS

- Modelling software Solid works
- Simulation software Ansys

POSITIONS OF RESPONSIBILITY

Centre Post Graduate Programme Committee member, Centre for Rural Technology, IIT Guwahati 2019-2020

ACHIEVEMENTS

- Selected for Prime Minister Research Fellowship (Direct entry channel), May 2020 under Ministry of Education, Government of India
- Received Best Thesis Award for M Tech thesis from Center for Rural Technology, IIT Guwahati,2020
- Selected for an internship under Ishan Vikash Programme of the Ministry of Human Resource Development, Government of India

KEY COURSES TAKEN

Rural Energy	Thermodynamics
Solar Energy Conversion Technology	Heat and Mass Transfer
Energy Efficiency, Planning and Management	Strength of Materials

REFERENCES

Dr. Pankaj Kalita, Assistant Professor

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