Curriculum-vitae of RUPAM KATAKI

Rupam Kataki, *PhD*

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Dr. Rupam Kataki is currently serving as a Professor, Department of Energy, Tezpur University. A former Head, Department of Energy and a former Director, Internal Quality Assurance Cell (IQAC) at Tezpur University, Dr Kataki received his B.Sc. and M.Sc. from Assam Agricultural University, Jorhat and Ph.D. from Tezpur University, and had a post-doctoral stint at the Department of Biological Systems Engineering at Washington State University, Pullman, USA.

He has research interests in the areas, viz. thermochemical conversion of biomass to biofuel and biochar, utilization of agricultural and industrial waste for recovery of fuels and chemicals, C-sequestration and soil amendment through biochar application, biodiesel production from indigenous tree-borne oil yielding species of NE India, Water remediation through use of biochar application and Ecological and economical aspects of charcoal production in traditional kilns in NE India.

Thermochemical conversion of biomass and biowastes to bio-oil and biomaterials

A number of feedstock including agro-wastes (Sesame stalk, maize stalk), agro-industrial wastes (tea factory waste, arecanut husk, coir pith, jute dust), industrial wastes (black liquor solids), perennial grass (*Arundo donax, Saccharum ravanae*), aquatic weeds (*Ipomea carnea*, *Ipomoea fistulosa*), noxious weeds (*Parthenium hysterophorus, Lantana camara*), algae (*Scenedesmus dimorphus, Chlorella spp.*) and non-edible oil-seed cakes (*Cascabela thevetia*, *Kayea assamica, Mesua ferrea, Pongamia glabra*) have been screened for their suitability for thermo-chemical conversion to bio-oil and biomaterials. Further, process optimization for pyrolysis of these feedstocks has been carried out in order to recommend this diverse group of biomass feedstock for thermochemical conversion process. Both the physico-chemical properties and kinetic decomposition parameters were studied to explore these feedstocks for thermochemical conversion. The bio-oil obtained from *Mesua ferrea* seed cover, *Pongamia glabra* seed cover and *Scenedesmus dimorphus* were further fractionated to investigate its suitability both as renewable fuel and value added chemical. Antioxidant and antimicrobial properties of the bio-oil obtained were also investigated for applications in the field of pharmaceuticals. Pretreatment of arecanut husk using torrefaction was performed to explore it as a feedstock for pyrolytic conversion. These studied showed that these feedstocks have potential for conversion to bio-oil through the process of pyrolysis to supplement the petro-derived liquid fuel for heating and transportation applications after

upgrading. The biochar produced as a coproduct of pyrolysis can be a potential soil amendment with multiple benefits including increased soil fertility and C-sequestration.

Investigation of indigenous non-edible oil bearing seeds for biodiesel production and utilization in IC engine

Lot of research activities concerning production of biodiesel from a variety of non-edible plant seed oil including *Pongamia glabra* (*Koroch*), *Mesua ferrea L*. (*Nahor*), *Thevetia peruviana S.* (*Karabi*), and *Kayea assamica* (*Sia Nahor*) are going on. Identification of new feedstock, characterization of new variety of vegetable oil with an aim to assess the suitability for biodiesel production, optimization of the production process and assessment of engine performance (Brake specific fuel consumption, brake thermal efficiency, CO and NO_x emission) have been the major focus of the biodiesel research till now. With reference to Indian policy to search for non-edible feedstock, regional factors need to be considered for identification of feedstock. The assessment of the identified feedstock in terms of quality and utility of biodiesel is a pre-requisite for its further promotion.

Bio-waste valorization to produce biochar and its application

Various biowastes such as deoiled seed cakes (*Cascabela thevetia*, *Pongamia glabbra*, *Mesua ferra*), seed covers (*Pongamia glabra*, *Mesua ferra, Jatropha carcus*), microalgae species (*Chlorella, Senedesmus dimorphus*), aquatic weed species (*Ipomoea carnea, Ipomoea fistulosa, Parthenium hysterophorus*), perennial grass (*Arundo donaxL.*), agro wastes (maize corn, sesame stalk), agro industrial wastes (tea factory waste, coir pith, jute dust, arecanut husk) were valorized to produce biochar at different temperatures. The physicochemical properties of these biochars were investigated and their feasibility for soil application was analyzed. Biochar produced from these feedstocks showed high pH and electrical conductivity (EC) values with increase in pyrolysis temperature. Due to high pH, biochar may be used as a liming agent as it is capable to resolve the acidity problem of soil. Biochar produced at higher temperature is important for favorable values of pH and EC of for its use as a soil amendment. Carbon sequestration potential is another parameter of biochar to study the resistance ability of biochar against both biotic and abiotic degradation when applied to soil. Biochar produced at higher temperature shows higher recalcitrance which indicated that it cannot be easily mineralized by microorganism present in the soil. Biochar produced has been utilized to assess its impact on crop production (short duration crop) and soil quality in field trials Also, the biochar produced from these feedstocks showed efficient adsorption capacity for removal of heavy metal from waste water. *Ipomoea fistulosa* biochar showed high adsorption potential for removal of Cd from contaminated water.

PRESENT & PAST PROFESSIONAL EXPERINECE

Served as ***an Adjunct Faculty*** in the Department of Biological Systems Engineering, Washington State University, at Pullman, WA 99163, USA from July 1, 2019 to September 30, 2019.

Served as the ***Head, Department of Energy*** from September 2016 to June 2019.

Working as a ***Professor,*** in the Department of Energy, Tezpur University from June 28, 2015 to till date.

Served as an ***Associate Professor***, in the Department of Energy, Tezpur University from September 06, 2010 to June 27, 2015.

Served as an ***Assistant Professor***, in the Department of Energy, Tezpur University from October 07, 2007 to September 05, 2010.

Served as an ***Assistant Professor*** in the North-Eastern Regional Institute of Water and Land Management (NERIWALM, *an Autonomous Institute under Ministry of Water Resources, Govt. of India*), Tezpur from June 29th, 2005 to October 6th, 2007.

EDUCATIONAL QUALIFICATIONS

Degree : Ph.D.
Awarded by : Tezpur University, Tezpur
Year : 2006 (Awarded on 06-02-2006)
Title of thesis : Studies on carbonization of some indigenous wood species of north-east India.

Degree : M.Sc. (Biochemistry)
Awarded by : Assam Agricultural University with First Class
Year : 1995

Degree : B.Sc. (Agriculture)
Awarded by : Assam Agricultural University with First Class
Year : 1993

ACADEMIC ACHIEVEMENTS

- **Indian Roads Congress Medal** for the best paper, *Towards sustainable asphalt binders: Evaluation of bio-asphalt binders and mixes with biochar*, discussed during the 80th Annual Session of the Indian Roads Congress at Patna, and awarded during the 81st Annual Session of the Indian Roads Congress, October 8-11, 2022, Lucknow, India.
- **Best Poster award** in the International Conference on Smart Materials for Sustainable Technology (SMST-2020), organized by the Society for Interdisciplinary Research in Materials & Biology, Goa, February 23-25, 2020.
- **Awarded the DBT Overseas Research Associateship in 2018**
- **Best Poster award** in the 27th National Conference of Soil Conservation Society of India on Sustainable Management of Soil and Water Resources for Doubling Farmers' income, AAU, Jorhat, October 25-27, 2018.
- **Top Reviewer Award 2017 from Bioresource Technology, Elsevier**
- Awarded the DBT Overseas Research Associateship in 2017
- **Best Poster award** in the ***National Conference on Renewable Energy Technology Utilization for Rural Development (NCRETURD-2017),*** *organised by Department of Energy Engineering, North-Eastern Hill University*, Shillong, Meghalaya, February 27 – March 1, 2017.
- **Best Poster award** in the ***International Conference on Current Trends in Biotechnology (ICCB-2016),*** organized by VIT University, Vellore, Tamil Nadu, December 8-10, 2016.
- **Awarded CSIR's Foreign Travel Grant** for participating in the 2010 International Chemical Congress of Pacific Basin Societies [**Pacifichem,2010**] in Honolulu, Hawaii, USA, 15-20 December, 2010;
- **Awarded DST's full Foreign Travel** Grant for participating in World Renewable Energy Congress 2009, Bangkok,19-22 May, 2009
- **Awarded CSIR's full Foreign Travel Grant** for participating in the 1st World Congress on Agro-forestry, Orlando, Florida, USA,27 June – 2 July, 2004
- Awarded **National Renewable Energy Fellowship** by MNRE, Govt. of India
- Awarded **CSIR Senior Research Fellowship**
- Awarded **Visiting Research Scholarship by IISc**, Bangalore at the Centre for Ecological Sciences, IISc, Banglore
- Awarded **University Merit Scholarship** during UG & PG studies at Assam Agricultural University
- Awarded **National Merit Scholarship**
- Awarded **State Merit Scholarship**

COURSES TAKEN (AT POST-GRADUATE LEVEL)

- ❖ Fuel Technology (EN566)/Fuel and Combustion (EN503) – **Course Instructor (CI)**
- ❖ Energy, Ecology and Environment (EN502) – **CI**

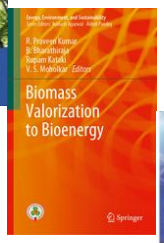
- ❖ Energy Economics and Planning (EN511) – **CI**
- ❖ Energy Laboratory I (EN576) – **CI**
- ❖ Petroleum Exploration, Drilling and Production (EN588) **– CI**
- ❖ Energy, Climate Change and C-Trading (EN592) **– CI**
- ❖ Biomass Energy and Conversion System (EN703) **– CI**
- ❖ Waste to Energy **– CI**
- ❖ Biomass Energy (EN568) **–Co- Course Instructor (Co- CI)**
- ❖ Energy and Environment (ES510) – **Co-CI**
- ❖ Energy Management and Auditing (EN573) – **Co-CI**
- ❖ Soil Chemistry and Plant Growth (in the Dept. of Env. Sci.) – **Co-CI**

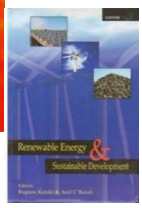
COUNTRIES VISITED ON ACADEMIC PURSUIT

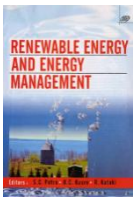
- USA (**Florida, 2004**)
- Thailand (**Bangkok, 2009**)
- USA (**Hawaii, 2010**)
- Belgium (**Brussels, 2012**)
- The Netherlands **(Utrecht, Amsterdam and Wageningen, 2013)**
- Belgium (**Brussels, 2014**)
- Italy **(Rome, 2014)**
- USA **(Washington, 2019)**

PUBLICATIONS

Books (edited)







1) **Rupam Kataki,** Ashok Pandey, Samir K. Khanal, Deepak Pant (2020). **Current Developments in Biotechnology and Bioengineering: Sustainable Bioresources for the Emerging Bioeconomy**. ***Elsevier.***
2) R. Praveen Kumar, B. Bharathiraja, **Rupam Kataki,** V.S. Moholkar (2020). ***Biomass Valorization to Bioenergy***, **Singapore: *Springer*** (ISBN 978-981-15-0409-9).
3) **Rupam Kataki,** Anil C Borah (2012). ***Renewable Energy and Sustainable Development***, **Guwahati: EBH Publishers** (ISBN: 978 93 80261 78).
4) S.C. Patra, B.C. Kusre, **R Kataki** (2007). ***Renewable Energy and Energy Management,*** Lucknow: International Book Distributing Co. (ISBN: 978-8123925578).

Book Chapters

During 2025

5. Padhi P, Bhuyan N, Bora N, Deka A, Athparia M, Borah B, **Kataki R.** Biocrude Oil through Hydrothermal and Pyrolysis Processes: A Comparative Assessment of Properties and Downstream Upgradation. In: Production and Biorefining of Biocrude Oil: Current Status and Future Development, (Ed. Aslam M), Springer Nature, 2025 [ISBN: 978-981-96-5197-9] [DOI: https://doi.org/10.1007/978-981-96-5198-6_10].

6. Bora D, Bardhan P, Padhi P, Mandal M, **Kataki R**. Microbial production of Biocrude oil and its futuristic applications. In: Biocrude Oil Biorefinery: An Emerging Biorefining Approach, (Ed. Aslam M), **Springer Nature**, 2025, [ISBN: 978-3-031-85035-6] [DOI: https://doi.org/10.1007/978-3-031-85036-3_13].
7. Gadling NB, Prasad S, **Kataki R,** Rathore D, Venkataramanan V, Singh A, Sevda S. Characteristics of Biomass: Composition, Source and Sustainable Applications. In: The Principles of Green Energy & Technology: Basic Concepts to Applications: Vol I, (Ed: Sevda S), **CRC Press**, 2025 [In Press].
8. Bardhan P, Bhuyan S, Saha D, Sohtun P, Kumar S, Jha AN, Mandal M, **Kataki R.** Bioremediation, mycoremediation and phycoremediation of wastewater: a promising approach for pollutant removal and bioresource recovery. In: The Principles of Green Energy & Technology: Basic Concepts to Applications: Vol I, (Ed: Sevda S), **CRC Press**, 2025 [In Press].
9. Borah D, Eldiehy KSH, **Kataki R**, Deka D. Circular bio-based economy of microalgae-based processes and products. In: Algal Bioreactors: Vol 1: Science, Engineering and Technology of Upstream Processes (Eds. Jacob-Lopes E, Deprá MC), **Elsevier**, 2025, pp. 39-67 [ISBN: 978-3-031-85035-6] [DOI: https://doi.org/10.1016/B978-0-443-14058-7.00045-2].

During 2024

10. Venkatramanan V, Maddirala S, Bardhan P, **Kataki R,** Rathore D, Prasad S, Singh A, Sevda S. Application of Anaerobic Digestion Approach for the Treatment of Agro-Residue Waste. In: Solid Waste Management – Volume 2: Biological/Biochemical Approaches, (Eds. Sevda S, Chauhan G), **CRC Press**, 2024, [ISBN: 9781003229919], [DOI: https://doi.org/10.1201/9781003229919].

During 2023

11. Gayan A, Borah P, Nath D, **Kataki R.** Soil microbial diversity, soil health and agricultural sustainability. In: Sustainable Agriculture and the Environment (Eds. Farooq M, Gogoi N, Pisante M), **Academic Press**, 2023, pp. 107-126 [ISBN: 978-0-323-90500-8] [DOI: https://doi.org/10.1016/B978-0-323-90500-8.00006-3].
12. Bardhan P, Gupta K, Mandal M, **Kataki R.** Nanomaterials in Lignocellulosic Biodiesel Production by Oleaginous Microorganisms. In: Biotic Resources: Circular Bioeconomy Perspective (Eds. Bhaskar T, Varjani S, Krishna BB, Pandey A), **CRC Press**, 2023, pp. XXXX-XXXX [ISBN: 9781003335740] [DOI: https://doi.org/10.1201/9781003335740].
13. Phukan MM, Sangma SR, Kalita D, Pankaj PP, Das PP, Bora P, Saha J, Kumar M, Hazarika N, **Kataki R.** Next-generational biosurfactant and their practical application in the food industry. In: Applications of Next Generation Biosurfactants in the Food Sector (Eds. Inamuddin, Adetunji CO), **Academic Press**, 2023, pp. 361-389 [ISBN: 978-0-12-824283-4] [DOI: https://doi.org/10.1016/B978-0-12-824283-4.00020-4].

During 2022

14. Gupta K, Bardhan P, Bhatt D, Rather MA, Kumar P, Bawitlung L, Mandal M, **Kataki R.** Evolution of Biological Pretreatment Methods for Agricultural Residues and Defatted Microalgae for Overcoming Biomass Recalcitrance in Biofuel Generation. In: Enzymes in the Valorization of Waste (Ed. Verma

P), Boca Raton, **CRC Press**, 2022, [ISBN: 9781003187714] [DOI: https://doi.org/10.1201/9781003187714].

15. Deka P, Gohain M, Bhuyan N, Gogoi N, **Kataki R.** Utilization of Biowastes in Green Chemistry. In: Climate Change and Agriculture: Perspectives, Sustainability and Resilience (Ed. Benkeblia N), **Wiley**, 2023, pp. 399-424 [ISBN: 978-1-119-78976-5] [DOI: https://doi.org/10.1002/9781119789789.ch16].
16. Bordoloi N, Bora N, Deka A, Athparia M, Sohtun P, **Kataki R.** Panoramic View about Microalgae Biomass as Waste-to-Energy: A Biorefinery Concept. In: Handbook of Waste Biorefinery (Eds. Jacob-Lopes E, Zepka LQ, Deprá MC), **Springer Cham**, 2022, pp: 417-62 [ISBN: 978-3-031-06561-3], [DOI: https://doi.org/10.1007/978-3-031-06562-0_15].
17. Deka A, **Kataki R,** Simha P. Recycling source-separated human faeces. In: Novel Approachers Towards Wastewater Treatment and Resource Recovery Technologies (Eds. Mungray A, Mungray A, Sonawane S, Sonawane S), **Elsevier** 2022, [ISBN: 978-0-323-90627-2] [DOI: https://doi.org/10.1016/B978-0-323-90627-2.00023-X].
18. Biswal T, Shadangi KP, **Kataki R**. Advanced Practices in Biodiesel Production. In: Biodiesel Production: Feedstocks, Catalysts, and Technologies (Eds. Rokhum SL, Halder G, Assabumrungrat S, Ngaosuwan K), **Wiley,** 2022. [ISBN: 9781119771364] **[DOI: https://doi.org/10.1002/9781119771364.ch20].**
19. Kumar S, Mahato RP, Gupta K, Bardhan P, Rather MA, Mandal M, **Kataki R.** Understanding Biomass Recalcitrance: Conventional Physical, Chemical, and Biological Pretreatment Methods for Overcoming Biomass Recalcitrance. In: Thermochemical and Catalytic Conversion Technologies for Future Biorefineries. Clean Energy Production Technologies. (Ed. Verma P) **Springer, Singapore** 2022, pp. 53-78, [ISBN: 978-981-19-4311-9] [DOI: https://doi.org/10.1007/978-981-19-4312-6_3].
20. Gupta K, Rather MA, Kumar P, Bardhan P, Mahnot NK, Mandal M, **Kataki R.** Physical and Chemical Hydrolysis Methods for Breaking Down the Complex Waste Biomass to the Fermentable Sugars and Value-Added Products. In: Thermochemical and Catalytic Conversion Technologies for Future Biorefineries, (Ed. Verma P) **Springer, Singapore 2022**, pp. 59-75, [ISBN: 978-981-19-4315-7] [DOI: https://doi.org/10.1007/978-981-19-4316-4_3].
21. Gupta K, Bardhan P, Rather MA, Saikia D, Loying S, Mandal M, **Kataki R.** Microbes in Resource and Nutrient Recovery via Wastewater Treatment. In: Industrial Microbiology and Biotechnology (Ed. Verma P), **Springer, Singapore**, 2022. [ISBN: 978-981-16-5213-4] [DOI: https://doi.org/10.1007/978-981-16-5214-1_22].
22. Gupta K, Bardhan P, Saikia D, Rather MA, Loying S, Mandal M, **Kataki R.** Microbial Fermentation: Basic Fundamentals and Its Dynamic Prospect in Various Industrial Applications. In: Industrial Microbiology and Biotechnology (Ed. Verma P), **Springer,** Singapore, 2022. [ISBN: 978-981-16-5213-4] [DOI: https://doi.org/10.1007/978-981-16-5214-1_4].
23. Sarma B, Gogoi L, Gogoi N, **Kataki R.** Crop Plants Under Metal Stress and Its Remediation. In: Plant Stress: Challenges and Management in the New Decade, (Eds. Roy S, Mathur P, Chakraborty AP, Saha SP), **Springer Nature,** 2022 (ISBN: 978-3-030-95365-2) [DOI: https://doi.org/10.1007/978-3-030-95365-2_3].
24. Deka A, Bardhan P, Mandal M, **Kataki R.** Nano-biomaterials as a Potential Tool for Futuristic Applications. In: Handbook of Smart Materials, Technologies, and Devices, (Eds. Chaudhery MH,

Paolo DS), **Springer,** Singapore, 2022 (ISBN: 978-3-030-58675-1) [DOI: https://doi.org/10.1007/978-3-030-58675-1_32-1].

25. Bardhan P, Deka A, Bhattacharya SS, Mandal M, **Kataki R.** Economical aspect in biomass to biofuel production. In: Value-Chain of Biofuels: Fundamentals, Technology, and Standardization, (Eds. Yusup S, Rashidi NA), **Elsevier,** 2022. (ISBN: 978-0-12-824388-6) [DOI: https://doi.org/10.1016/B978-0-12-824388-6.00003-8].
26. **Kataki R,** Kataki MD. Weeds as a renewable bioresource: prospects for bioconversion to biofuels and biomaterials through a cascade of approaches. In: Biofuels and Bioenergy -Opportunities and Challenges (Eds. Gurunathan B, Sahadevan R, Zakaria ZA), **Elsevier,** 2022 (ISBN: 978-0-323-85269-2) [DOI: https://doi.org/10.1016/B978-0-323-85269-2.00021-6].

During 2021

27. Gogoi L, Narzari R, Chutia RS, Borkotoki B, Gogoi N, **Kataki R.** Remediation of heavy metal contaminated soil: Role of Biochar. In: Advances in Chemical Pollution, Environmental Management and Protection, (Ed. Sarmah A), **Elsevier,** 2021. (ISSN: 2469-9289), [DOI: https://doi.org/10.1016/bs.apmp.2021.08.002].
28. Bhuyan N, Borah MJ, Bora N, Saikia D, Deka D, **Kataki R.**Heterogeneous Nanocatalytic Conversion of Waste to Biodiesel. In: Nano and Biocatalysts in Biodiesel production, (Ed. Ingle AP), **Wiley**, pp. 249-277. (ISBN: 9781119730002) [DOI: https://doi.org/10.1002/9781119729969.ch10].
29. Bhuyan N, Bora N, Narzari R, Boruah K, **Kataki R.** (2021). Thermo-Catalytic Conversion of Non-Edible Seeds (Extractive-Rich Biomass) to Fuel Oil. In: Liquid Biofuels: Fundamentals, Characterization, and Applications, (Ed. Shadangi KP), **Wiley**, 2021 pp. 285-360. (ISBN:9781119791980), [DOI: https://doi.org/10.1002/9781119793038.ch9].
30. Bhuyan N, Dutta A, Mohan R, Bora N, **Kataki R.** Advances in Nanotechnology for Biofuel Production. In: Nanomaterials: Application in Biofuels and Bioenergy Production (Eds. Praveen Kumar R, Bharathiraja B), **Elsevier,** 2021, pp. 533-562 (ISBN: 9780128224014), [DOI: https://doi.org/10.1016/B978-0-12-822401-4.00008-8].
31. Bordoloi N, Narzari R, Choudhury PK, **Kataki R.** Bioconversion of Food Waste into Biogas. In: Sustainable Bioconversion of Waste to Value Added Products (Eds. Inamuddin, Khan A), **Springer,** 2021, pp. 81-94 (ISBN: 978-3-030-61836-0) [DOI: https://doi.org/10.1007/978-3-030-61837-7_5].
32. Mazumdar NJ, **Kataki R,** Pant KK. Furfural and Chemical Routes for its Transformation into Various Products. In: Catalysis for Clean Energy and Environmental Sustainability: Biomass Conversion and Green Chemistry, (Eds. Pant KK, Gupta SK, Ahmad E), **Springer,** 2021, pp. 705-719 (ISBN: 978-3-030-65016-2) [DOI: https://doi.org/10.1007/978-3-030-65017-9_21].
33. Phukon MM, Kumar R, Gupta K, Bardhan P, Bhuyan N, Gogoi L, Bora P, Mandal M, **Kataki R.** Aquatic Microbial Oxygenic Phototrophs: A Short Treatise on Diverse Applications and the Future Biofuel Scenario. In: Environmental Microbiology and Biotechnology (Eds. Singh A, Srivastava S, Rathore D, Pant D), **Springer Nature**, 2021 (ISBN 978-981-15-7492-4) (https://doi.org/10.1007/978-981-15-7493-1_7).
34. Choudhury ND, Bhuyan N, Narzari R, Saikia R, Seth D, Saha N, **Kataki R.** Various conversion techniques for the recovery of value-added products from tea waste. In: Valorization of Agri-Food Wastes and By-Products (Ed. Bhat R), **Academic Press**, 2021, pp. 237-265 (ISBN: 978-0-12-824044-1) [DOI: https://doi.org/10.1016/B978-0-12-824044-1.00015-5].

During 2020

35. Goswami PK, Choudhury ND, **Kataki R**. Comparison of Various Solar Radiation Data Sources for Feasibility Study of Parabolic Trough Collector Power Plant in Assam. In: Advances in Mechanical Engineering, (Eds. Biswal B, Sarkar B, Mahanta P), Lecture Notes in Mechanical Engineering. **Springer, Singapore**, 2020, pp: 1437-1445 (ISBN 978 981 15 0123 4), [DOI: https://doi.org/10.1007/978-981-15-0124-1_126].

36. Sut D, **Kataki R.** A Biorefinery Based Zero-Waste Utilization of Non-edible Oilseeds for Biodiesel and Biofuel Production Along with Chemicals and Biomaterials. In: Biorefineries: A Step Towards Renewable and Clean Energy (Ed. Verma P), **Springer**, 2020 (ISBN 978-981-15-9592-9) [DOI: https://doi.org/10.1007/978-981-15-9593-6_2].

37. Bora N, Narzari R, Bhuyan N, **Kataki R.** Bioenergy-Byproducts Based Electrodes for Flexible Supercapacitors. In: Biorefineries: A Step Towards Renewable and Clean Energy (Ed. Verma P), **Springer**, 2020 (ISBN 978-981-15-9592-9), [DOI: https://doi.org/10.1007/978-981-15-9593-6_17].

38. Borah P, Baruah N, Gogoi L, Borkotoki B, Gogoi N, **Kataki R.** Biochar: A New Environmental Paradigm in Management of Agricultural Soils and Mitigation of GHG Emission. In: Biochar Applications in Agriculture and Environment Management (Eds. Singh J, Singh C). **Springer, Cham**, 2020 (ISBN978-3-030-40996-8) [DOI: https://doi.org/10.1007/978-3-030-40997-5_11].

39. Das S, Reshad AS, Bhuyan N, Sut D, Tiwari P, Goud VV, and **Kataki R.** Utilization of non-edible oilseeds in a biorefinery approach with special emphasis on rubber seeds. In: Waste Biorefinery: Integrating Biorefineries for Waste Valorisation (Eds. Bhaskar T, Pandey A, Rene ER, Tsang DCW), **Elsevier,** 2020 (ISBN978-0-12-818228-4) [DOI: https://doi.org/10.1016/B978-0-12-818228-4.00012-5].

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Conference publicationsas full papers (Peer reviewed)

1) **Kataki, R.** (2023). Biochar for a Biobased Economy, In the Compendium of lecture notes under NAHEP Sponsored One Week Hands-on Training Programme on, Use of Biochar in Agriculture, organized by Biswanath College of Agriculture, Assam Agricultural University, Biswanath Chariali, July 17-22, 2023, pp. 41-51.
2) Dev Choudhury N, Saha N, **Kataki R.** (2021). A study on the improvement of cold flow behaviour and thermal-oxidation stability of *Camellia sinensis* assamica (tea) oil lubricants as industrial lubricant. IOP Conf. Ser.: Mater. Sci. Eng. 1070 012124. [DOI: https://doi.org/10.1088/1757-899X/1070/1/012124]
3) Gohain, P. P., Sut, D., Baruah, S. D., and **Kataki, R.** (2018). Biodiesel production from tea seed oil, In: Renewable Energy Technologies: Issues and Perspectives (Eds. Das, B., Biswas, A. and Bhowmik, S.), AIP Conference Proceedings 1998, 020019 (2018) (ISBN 978-0-7354 1714 4) [DOI: https://doi.org/10.1063/1.5049115].
4) Gogoi, S., Bhuyan, N., Sut, D., Narzari, R., Gogoi, L., and **Kataki, R.** Sesame Stalk as a Feedstock for Thermo-chemical Conversion: Products Distribution and Characterization, In: *Sustainable Waste Management* (Ed. Ghosh, S.K.), Proceedings of the 8th International Conference on Sustainable Waste Management (8th IconSWM), 2018, Acharya Nagarjuna University, Guntur, AP, India November 22 – 24, 2018, pp. 791-800.
5) Gogoi S, Narzari R, Bordoloi N, Sut D, Gogoi L, Bhuyan L, and **Kataki R.** Temperature Influence on Quality and Yield of Pyrolytic Products of Seedcake of *Kayea assamica*. In: *Sustainable Waste Management* (Ed. Ghosh, S.K.), Proceedings of the 8th International Conference on Sustainable Waste Management (8th IconSWM), Acharya Nagarjuna University, Guntur, AP, India November 22 – 24, 2018, pp. 801-810.
6) Das C, and **Kataki R.** A review on catalytic reforming techniques for hydrogen production from biomass derived oxygenated hydrocarbons, in proceedings of the International Conference on Renewable Energy (**ICORE2011)** organized by Solar Energy Society of India (SESI) and Tezpur University, Tezpur, India, November 2-4, **2011**, pp. 185-191.
7) **Kataki R.** Prospects of renewable energy in India, in proceedings of an All India Seminar on New & Renewable Energy Sources, organized by The Institution of Engineers, Meghalaya, September 18, 2010, Shillong, pp. 86-95.

8) Nath T, Das M, and **Kataki R.** Ethanol production from lignocellulosic biomass, in proceedings of an All India Seminar on New & Renewable Energy Sources, organized by The Institution of Engineers, Meghalaya, September 18, 2010, Shillong, pp. 96-104.

9) **Kataki R,** Chutia RS, and Kashyap S. Charcoal Production in North-East India : A Case Study on Biomass Utilization and Charcoal Production in Traditional Kilns, in proceedings of the World Renewable Energy Congress 2009 – Asia, Bangkok, Thailand, May 19-22, 2009, pp. 464-469.

10) Borah M, **Kataki R,** and Chutia RS. Development and Characterization of Expanded Graphite-Based Composite As Bipolar Plate for Polymer Electrolyte Membrane Fuel Cells (PEMFCs) in proceedings of the World Renewable Energy Congress 2009 – Asia, Bangkok, Thailand, May 19-22, **2009**, pp. 759-764.

11) **Kataki R,** Deka D, and Chutia RS. A study on the fuel characteristics of solid biofuels produced from some indigenous tree species of north-east India, in proceedings of the 8thInternational Oil & Gas Conference & Exhibition (Petrotech 2009), organized by Ministry of Petroleum and Natural Gas, Govt. of India & Indian Oil Corporation Ltd., New Delhi, January 11-15, 2009.

Conference Sessions Chaired/Moderated

I) Chaired a Technical Session (Session VA: Thermochemical Processing of Biomass) with Dr. Manish Kumar in the International Conference on Emerging Trends and Innovations in Biotechnology (BIOSPECTRUM-2023) during November 30 to December 2, 2023 organized by School of Biosciences, Mar Athanasios College for Advanced Studies Tiruvalla (MACFAST), Tiruvalla, Kerala, India.

II) Chaired the 2nd Technical Session in the National Seminar, Reviving Traditional Practices in light of climate change, organized by Kaliabor College, Kaliabor, Nagaon, June 12-13, 2023.

III) Acted as a Pannelist in the Panel Discussion on, Industry-Academia Energy Conclave: IAEC-22: Buildng A Low Carbon Economy For The Northeast: Transition To Renewables, during the National Conference North East Sustainable and Inclusive Development (NESID), at the Assam Kaziranga University Jorhat, November 17, 2022.

IV) Chaired the 5th Technical Session in the ONGC-CPBT sponsored National Seminar on Petroleum Biotechnology and Bioenergy at Tezpur University, Tezpur, March 3-4, 2017.

V) Chaired the Session B-1 (Conversion of Biomass to Biofuels- I)in the 1st International Conference on Sustainable Energy and Environmental Sustainability (SEEC 2017) at the DBT-Centre for Innovative and Applied Bioprocessing, Mohali, February 26-28, 2017.

VI) Chaired (jointly with Emmanual M Papamichael) the session IVB, Lignocellulose/Algal Biorefinery in the International Conference on Current Trends in Biotechnology (ICCB2016), organized by VIT University in association with BRSI, India at VIT University, Vellore, December 8-10, 2016.

VII) Co-chaired the II Technical Session of the Workshop, Issues and Prospect of nutrient recovery from Bioenergy system for rural community, jointly organized by Department of Energy, Tezpur University and University of Nottingham, UK at Department of Energy, Tezpur University, July 27-28, 2015.

VIII) Chaired (jointly with Prof. V Ramamurthy) the **fourth Technical Session**, International Conference on Natural Resource Restoration Technologies (ICNRRT 2015), organized by the Department of Biotechnology, PSG College of Technology, Coimbatore, India, April 17-18, 2015.

IX) Chaired (jointly with Dr. Booki Min) the **third Technical Session on Biohydrogen**, 5th India-Korea Joint Workshop on Bioenergy: *Incorporating Biofuels & Biorefineries*, organized by the DST (MoST), Govt. of India and Ministry of Science, ICT and Future Planning (MSIP), Govt. of Korea at CSIR-National Institute of Interdisciplinary Science & Technology, Thiruvananthapuram, India, September 9-10, 2013.

X) Moderated (jointly with Dr. Rainer Janssen, WIP, Germany) the Technical Session 1: Biomass availability for biotechnological processes in the SAHYOG Project (an Indo-EU Collaborative project) Meeting and Stakeholder Meeting, New Delhi, India, November 5-7, 2012. http://www.sahyog-europa-india.eu/stakeholder-workshops/15-events.

Invited lectures in Seminar/Conference/CEP/FDP

1) **R. Kataki** delivered an invited lecture, Non-fuel applications of biowastes pyrolysis products: A Sustainable Approach to Resource Recovery for Circular Economy, in the 4th International Symposium on Analytical and Applied Pyrolysis (PyroAsia 2024), at Indian Institute of Technology Guwahati during November 28-29 2024.
2) **R. Kataki** delivered an invited lecture, Biochar and it's application for environmental sustainability, in a 3-day AICTE-Vibrant Advocacy for Advancement and Nurturing of Indian Languages (VAANI) sponsored workshop on "Mitigation of Climate Change for a Sustainable Earth", organized by the Department of Chemical Engineering, Assam Engineering College, Guwahati during September 02 – 04, 2024.
3) **R. Kataki** delivered a Key-note lecture (online), Biowaste derived Bioenergy and Biomaterials for Biobased Economy, in 3rd International Conference on "Recent Innovation in Engineering, Technology, Management and Research" (3rd ICRIETMR-2024), organized by the Bal Krishna Institute of Technology, Kota, Rajasthan, India during July 16-17 2024.
4) **R. Kataki** delivered an invited lecture, Biowaste derived biochar for land restoration, on the occasion of World Environment Day, at the College of Community Science, Assam Agricultural University on June 5, 2024.
5) **R. Kataki** delivered an invited lecture, Solid and plastic waste management circularity and sustainability, in the Earth Day Celebration (2024) on the Theme: Planet vs Plastics, organized by the Amity School of Earth and Environmental Sciences, Amity University Gurugram, Haryana – 122413 on April 22, 2024.
6) **R. Kataki** delivered an invited lecture at a Refresher Course, Waste bioresources for circular economy, organized by the University of Jammu on 19 January 2024.
7) **R. Kataki** delivered an invited lecture, Valorization of biowastes for biochar production and utilization for circular bioeconomy, in an International Conference on Emerging Trends and Innovations in Biotechnology (BIOSPECTRUM-2023) during November 30 to December 2, 2023 organized by School of Biosciences, Mar Athanasios College for Advanced Studies Tiruvalla (MACFAST), Tiruvalla, Kerala, India.
8) **R. Kataki** delivered an invited lecture, Agricultural waste management as a strategy for circular bioeconomy, in an International Conference on New Horizons in Biotechnology (NHBT-2023) November 26-29, 2023, organized by the CSIR-NIIST, Trivandrum, and BRSI at Trivandrum Kerala India.
9) **R. Kataki** delivered a Key-note lecture, Biochar for industrial applications, in a National Seminar on Biochar - Greening of Steel through agro-based products, organized by Technology Knowledge Society (TKS) –Ranchi, in association with R&D Centre for Iron & Steel (RDCIS), Steel Authority of India Limited (SAIL) and ICAR-Indian Institute of Agricultural Biotechnology (IIAB), under guidance of Ministry of Steel at RDCIS, Ranchi during 15-16 September, 2023.
10) **R. Kataki** delivered an invited lecture, Biobased resource for sustainable energy generation, in the International Summit on Renewable Energy 2023 (INSORE2023), organized by North East Renewable Energy Research Lab & University of Zagreb, Croatia at Guwahati, Assam, India, July 22-24, 2023.
11) **R. Kataki** delivered a Keynote lecture, ***Biochar for a biobased economy***, in the National Agricultural Higher Education Project sponsored 1-week Hands-on training programme on *Use of Biochar in Agriculture,* Biswanath College of Agriculture, AAU, July 17-22, 2023.
12) **R. Kataki** delivered an **invited lecture in the Refresher Course in Environmental Science** (Interdisciplinary), ***Waste Bioresources for Circular Bioeconomy***, organized by the Department of Environmental Sciences, University of Jammu, Jammu, Dec 28, 2022 – Jan. 08, 2023.
13) **R. Kataki** delivered an **invited lecture in the** National Conference North East Sustainable and Inclusive Development (NESID) on ***Valorization of organic wastes***, organized by the Assam Kaziranga University Jorhat, and Institute of Frontier Science and Application (IFSA) Bangalore, at Jorhat, Assam, November 16-18, 2022.
14) **R. Kataki** delivered an **invited lecture in the** National Conference on Environmental and Industrial Biotechnology (NCEIB-2022), on ***Waste Management***, **o**rganised by Department of Biotechnology, Dr. Ambedkar Institute of Technology for Handicapped, Kanpur, U.P, India November 10-12, 2022.

15) **R. Kataki** delivered an **invited lecture in the** ICAR sponsored winter school on Crop Residues utilization and management for clean energy and environment during 23rd Feb - 15th March 2022, on ***Biowaste Biorefinery – Recovery of Bioenergy and Biomaterials,*** organized by the Agricultural Energy and Power Division of ICAR-Central Institute of Agricultural Engineering, Bhopal, MP, India.
16) **R. Kataki** delivered an **invited lecture,** in the International Environmental Engineering Webinar Series (Enviro Webtalk 2021 during 17-22 May, 2021) on, **Biorefinery approach for biowaste Valorization**, organized by the School of Civil Engineering, Lovely Professional University, Punjab, India.
17) **R. Kataki** delivered an **invited lecture,** in the International Conference on Biotechnology for Sustainable Agriculture, Environment and Health (BSAEH 2021) jointly organized by Malaviya National Institute of Technology, Jaipur and the Biotech Research Society, India at Jaipur, India during April 04-08, 2021.
18) **R. Kataki** delivered an **invited lecture,** in the AICTE Training and Learning Academy (ATAL) Sponsored 5 Day online Faculty Development Program (FDP) on "Recent Development in Biomass to Energy" organized by the Department of Mechanical Engineering, NIT Arunachal Pradesh, on March 04, 2021.
19) **R. Kataki** delivered an **invited lecture,**in the at Virtual International Conference on Innovative Research in Renewable Energy Technologies (IRRET-2021), organized by the IMPS College of Engineering and Technology, Malda, West Bengal on February 26, 2021.
20) **R. Kataki** delivered an **invited lecture,** *Thermochemical conversion of perennial grass biomass to energy and biomaterial,* in thewebinar,*Characterization of biofuel*, organized by the Department of Mechanical Engineering, Jorhat Institute of Science & Technology, Jorhatin collaboration with Assam Science & Technology University under CRS Programme(TEQIP-III) on February 20, 2021.
21) **R. Kataki** delivered an **invited lecture,** *Lignocellulosic waste biomass for Fuel and biomaterials through a biorefinery approach*, in the webinar series "Clean Energy Technology for Sustainability of the Environment" organized by the Department of Chemical Engineering, Assam Engineering College, Guwahati, Assam, in collaboration with Assam Science and Technology University, Guwahati, Assam, under TEQIP III from January 27-30, 2021.
22) **R. Kataki** delivered an **invited lecture**,*Lignocellulosic biomass for biofuels and chemicals/ materials in a biorefinery approach*, in the Refresher Course in Environmental Science (Interdisciplinary) organized by the Department of Environmental Sciences, University of Jammu, on December 30, 2020.
23) **R. Kataki** delivered an **invited lecture**, *Valorization of low value biomass to biofuels and chemicals*, in the International Webinar on Bioenergy for Environment and Society, organized by the School of Environment and Sustainable Development, Central University of Gujarat, September 17, 2020.
24) **R. Kataki** delivered an **invited lecture,** *Bamboo: A sustainable & renewable source of bioenergy*, in the webinar, Potential of Bio-Energy in North-East India, organized by Assam Science and Technology University (ASTU), Guwahati on September 08, 2020.
25) **R. Kataki** delivered an **invited lecture,** *A bio-refinery approach for the production of biofuels andchemicals from bio-wastes*, on September 6, 2020 in the one week Faculty Development Programme on, Water, Energy & Environment -2020 (WEE-2020), organized by the Department of Chemical Engineering, Veer Surendra Sai University of Technology, Burla, Odisha, India during September 05 – 09, 2020.
26) **R. Kataki** delivered an **invited lecture,** *Energy and materials/chemicals recovery from biowastes*, on August 26, 2020 in the Webinar series, Emerging Technologies in Biofuel Production (ETBP-2020), organized by the Department of Mechanical Engineering, AEC, Guwahati in collaboration with ASTU (under TEQIP III) during August 26-27, 2020.
27) **R. Kataki** delivered an **invited lecture,** *Energy and materials/chemicals recovery from biowastes*, on August 26, 2020 in the 5-day Webinar series, Biomass and Bioenergy, organized by the Department of Mechanical Engineering, Jorhat Institute of Science & Technology, Jorhat during August 25-29, 2020.
28) **R. Kataki** delivered an **invited lecture,** *Valorization of non-edible oil seeds for production of fuel and chemicals through a cascade of approaches*, on August 12, 2020 in the 5-day Webinar series, Research Initiatives and current developments in Renewable energy sources, organized by the Department of Mechanical Engineering, GIMT, Guwahati in collaboration with ASTU (under TEQIP III) during August 9-13, 2020.

29) **R. Kataki** delivered a **key-note lecture**, *Biomass as a source of green energy*, in a Faculty Development Programme on, Recent Trends in Green EnergyUtilization, organized by the Departments of Mechanical Engineering, and Industrial and Production Engineering, Assam Engineering College, Guwahati, Assam during February 10-14, 2020.

30) **R. Kataki** delivered two **invited lectures,** *Prospects of biodiesel production from non-edible oil seeds: an Indian perspective*, and *Conversion of biomass and biowastes to bio-oil and biomaterials*, in the ICAR Winter School at the College of Forestry, Kerala Agricultural University, Thrissur, Kerala, December 21-23, 2019.

31) **R. Kataki** delivered an **invited lecture,** *Biofuels for sustainable development***,** in a Faculty Development Programme organized by the Department of Energy, Tezpur University, February 20, 2018.

32) **R. Kataki** delivered an **invited lecture,** *Biomass as a source of green energy***,** in a National Seminar organized by the Departments of Chemical Engineering and Mechanical Engineering, Assam Engineering College, Guwahati, November 17-18, 2017.

33) **R. Kataki** deliveredan **invited lecture,** *Sustainable Development Goals of UNO***,** in a workshop organized by the District Administration, Sonitpur District, Tezpur at the Office of the Dy. Commissioner, Sonitpur, Tezpur, November 14, 2017.

34) **R. Kataki** delivered an **invited lecture,** *Biomass inventorization and thermo-chemical conversion for biofuels and biomaterials*, in a *National Conference on Renewable Energy Technology Utilization for Rural Development (NCRETURD-2017),*organised by Department of Energy Engineering, North-Eastern Hill University, Shillong, February 27 – March 1, 2017.

35) **R. Kataki** delivered an **invited lecture,** *Agro-processing wastes: a low value waste for conversion to fuels and materials***,** in an *International Conference***,** organized by VIT University in association with BRSI, India at VIT University, Vellore, December 8-10, 2016.

36) **R. Kataki** delivered an **invited lecture,** *Effect of pyrogenic carbon (Biochar) on soil management and C-sequestration***,** in an *International Conference on Advances in Bioprocess Technology*, organized by the School of Biosciences, Mar Athanasios College for Advanced Studies, Tiruvalla (MACFAST), Kerala, November 26-28, 2015.

37) **R. Kataki** delivered an **invited lecture,** *A bio-refinery approach for complete utilization of Cascabela thevetia seed***,** in an *International Conference on New Horizons in Biotechnology (NHBT 2015),* organized jointly by the CSIR-National Institute for Interdisciplinary Science & Technology, Trivandrum, Kerala and Biotech Research Society of India, November 22-25, 2015.

38) **R. Kataki** delivered an **invited lecture,** *Biomass and biowastes inventorization and thermo-chemical conversion of waste biomass,* in an International Conference on Natural Resource Restoration Technologies (ICNRRT 2015), organized by the Department of Biotechnology, PSG College of Technology, Coimbatore, India, April 17-18, 2015.

39) **R. Kataki** delivered **two invited lectures,** *Contemporary issues in Biomass & Bioenergy Research and Vision for Future, and Inventorization of Biomass & Biowastes Potential in Europe and India &Bio-waste valorization through Pyrolysis,*in a short term course, *Advances in New and Renewable Energy Materials and Technology (ANREMT-2015),* organized by Indian Institute of Technology (ISM), Dhanbad, March 23-27, 2015.

40) **R. Kataki** delivered an **invited lecture,** *Biomass conversion for rural development and livelihood options***,** in a short-term course, *Appropriate Technology for Rural Development*, organized by North Eastern Regional Institute of Science & Technology, Itanagar, August 25-29, 2014.

41) **R. Kataki** delivered an **invited lecture,** *Biomass for future bio-based economy*, in the II SAHYOG Summer School organized under the ambit of the Indo-European Union Collaborative Research project "SAHYOG" at Tezpur University, July 20-26, 2014.

42) **R. Kataki** delivered an **invited lecture,** *Biomass as a Source of Futuristic Inputs for a low-carbon Economy*, in the International Conference on Advances in Biotechnology and Bioinformatics (ICABB 2013), organised by Dr. D. Y. Patil Biotechnology and Bioinformatics Institute, Pune in association with Biotech Research Society of India (BRSI) at Hotel Le Meridian, Pune, November 25–27, 2013.

43) **R. Kataki** delivered an **invited lecture**, *Bioenergy byproducts (BEBP) utilization for Biooil and Biomaterials,* in the 5th India-Korea joint Workshop on Bioenergy: Incorporating Biofuels and Bio refineries, organized by DST (MoST), Govt. of India and Ministry of Science, ICT and Future Planning (MSIP), Govt. of Korea, at CSIR-National Institute for Interdisciplinary Science and Technology (CSIR-NIIST), Thiruvananthapuram, India, September 9 -10, 2013.

44) **R. Kataki** delivered an **invited lecture,** *Biomass and Biofuels for sustainable development*, in an International Symposium on Global Initiative for Sustainability and Human Development: Envisioning the Planetary Future, organized by the Global initiative for Sustainable Development and Planning (GISDP) & NECRD, IGNOU at IGNOU, Guwahati, India, October 1-3, 2012.

45) **R. Kataki** delivered an **invited lecture,** *Biomass Fast Pyrolysis: A Sustainable Renewable Energy Technology*, in a National Seminar on Challenges for Renewable Energy programme implementation, organised by the Environmental Watch and Management Institute and sponsored by MNRE, New Delhi, at Guwahati, March 21-22, 2012.

46) **R. Kataki** delivered an **invited lecture,** *Biomass as a source of sustainable livelihood option for rural masses*, in the first National Stakeholders meet for Global initiative for Sustainable Development and Planning (GISDP) organized by the NECRD, IGNOU, at IGNOU Guwahati, February 20, 2012.

47) **R. Kataki** delivered an **invited lecture**, *Youth Employment Opportunities in Renewable Energy*,in a National Seminar on Renewable Energy Technology (RETIP-2011), organized by North Eastern Regional Institute of Science &Technology (NERIST), Itanagar, September 2-3, 2011.

48) **R. Kataki** delivered an **invited lecture**, *Biomass to liquids (BTL): production, upgrading and use*, in the Continuing Education Programme (CEP) on Biomass: Technology Intervention for sustainable Management, organized by the Defence Research Laboratory (DRDO), Tezpur, November 8-12, 2010.

49) **R. Kataki** delivered a **key-note lecture,** *Biochar for C sequestration and soil amelioration*, in a National Seminar on Renewable Energy Technology (RETIP-2010), organized by North Eastern Regional Institute of Science & Technology (NERIST), Itanagar, September 24-25, 2010.

50) **R. Kataki** delivered two **invited lectures**, *Lignocellulosic biomass as a feedstock for bioenergy production and Renewable Energy in India*, in an All-India Seminar on New & Renewable Energy Sources, organized by The Institution of Engineers, Meghalaya, September 18, 2010, Shillong.

51) **R. Kataki** delivered an **invited lecture***, Weeds Utilization for energy production*, in a *National Consultation on Weed Utilization*, organized by the Indian Council of Agricultural Research – Directorate of Weed Science Research (ICAR-DWSR), Jabalpur, M.P., October 20-21, 2009.

Conference/seminar/workshop presentations/participation

During 2024

1) Maheshwari S, Siswanto ID, **Kataki R.** *presented a paper*, Comparative evaluation of Valorization of Eucalyptus Bark and Palm Empty Fruit Bunch (EFB) conversion to Biochar for sustainability in totality, in the 2nd Biochar Malaysia Association International Conference 2024 (BMAIC2024), Malaysia, 13-14 August 2024.
2) **Kataki R,** Borkotoki B, Bora N, Maheshwari S. *presented a paper*, Valorization of Pulp and Paper mill bio-residues to biochar for environmental and business sustainability in totality, in the Indian Pulp & Paper Technical Association 59th AGM and National Seminar, *Fostering the future of Energy & Environment in pump and paper industry, organized by* the Indian Pulp & Paper Technical Association, Kolkata, India, during February 22-24, 2024.

During 2023

3) Devi J, **Kataki R.** Bio-energy By-product as an enhancer of the biomethanation process, in the 76th Annual Session of Indian Institute of Chemical Engineers (IIChE – CHEMCON 2023) & International Conference on, *Energy Transition: Challenges and Opportunities*, organized by Indian Institute of Chemical Engineers at Heritage Institute of Technology, Kolkata, India, during December 27-30, 2023.

4) Athparia M, **Kataki R.** *presented a paper*, Organic fraction of municipal solid waste as a renewable feedstock for biofuel and biobased materials: A circular economy approach, in the 76th Annual Session of Indian Institute of Chemical Engineers (IIChe-CHEMCON 2023) & International Conference on, *Energy Transition: Challenges and Opportunities*, organized by Indian Institute of Chemical Engineers at Heritage Institute of Technology, Kolkata, India, during December 27-30, 2023.
5) Bora N, Athparia M, Daimary N, Loganathan MK, and **Kataki R.** *presented a paper*, Optimization of Biogenic Supplementary Cementitious Materials in Concrete prepared from East-Indian Lemon Grass (*Cymbopogon flexuosus*) and Poultry Litter using Response Surface Methodology, in the 76th Annual Session of Indian Institute of Chemical Engineers (IIChE – CHEMCON 2023) & International Conference on, *Energy Transition: Challenges and Opportunities*, organized by Indian Institute of Chemical Engineers at Heritage Institute of Technology, Kolkata, India, during December 27-30, 2023.
6) Deka A, Simha P, Vinnerås B, and **Kataki R**. *presented a paper*, Fabrication of a Poly L Lactic based passive self dosing system for alkaline stabilization of fresh human urine, in the 6th IWA International Conference on eco-Technologies for Wastewater Treatment (ecoSTP23), organised by the International Water Organisation in Girona, Spain during June 26th to 29th, 2023.
7) Padhi P, and **Kataki R.** *presented a paper*, Agro-industrial waste generation in India and its utilization - a pyrolytic valorization approach, in the 1st National Conference on Chemical and Bio-Sciences (NCCBS-2023), organized by the Department of Chemical Engineering, Veer Surendra Sai University of Technology, Burla, Sambalpur, Odisha during March 25-26, 2023.

During 2022

8) **Kataki R,** *presented (online) a paper,* Wood production in agro-forestry systems for sustainable energy use, in the 5th World Congress on Agroforestry 2022: Transitioning to a Viable World, Quebec City, Canada during July 17-20, 2022.

During 2021

9) Bora, N., Jayswal, V. K., and **Kataki, R.,** *presented (online) a paper,* Investigation of the Capacitive Properties of Chemically Activated Sugarcane Bagasse Biochar for Supercapacitor Application, in the International Conference on Innovative Research in Renewable Energy Technologies (IRRET-2021), IMPS College, Malda, West Bengal, India during February 25 – 27, 2021.
10) Das, R., Athparia, M., and **Kataki, R.**, *presented (online) a paper*, Co-pyrolysis of plastic waste and waste biomass: A potential strategy for waste management, in the 5thInternational Conference on Bioenergy, Environment and Sustainable Technologies organized by the Department of Biotechnology, Arunai Engineering College, Tiruvannamalai – 606603, Tamilnadu, India during January 29 – 30, 2021.
11) Devi, P., Choudhury, P.K.,and **Kataki, R.**, *presented (online) a paper*, Solar energy driven/assisted pyrolysis, in the 5thInternational Conference on Bioenergy, Environment and Sustainable Technologies organized by the Department of Biotechnology, Arunai Engineering College, Tiruvannamalai – 606603, Tamilnadu, India during January 29 – 30, 2021.

During 2020

12) Bora, N., and **Kataki, R.** *presented a paper*, A review on biomass based electrode materials for flexible supercapacitors in the 3rdNational Conference on Recent Advances in Science and Technology (NCRAST 2020), organized by Assam Science and Technology University (ASTU), August 17-19, 2020.
13) Bhuyan, N., Dev Choudhury, N., Upadhyaya, K., and **Kataki, R.** *presented a paper*, Assessment of Kinetic Parameters of *Tithonia diversifolia* Pyrolysis, in the 3rdNational Conference on Recent Advances in Science and Technology (NCRAST 2020), organized by Assam Science and Technology University (ASTU), August 17-19, 2020.

14) **Kataki, R.** participated in a two-day online workshop, Integration of Basic ICT Tools in Teaching Pedagogy, organized by the Teaching Learning Centre in association with IQAC, Tezpur University under PMMMNMTT Scheme of MHRD, Govt. of India, June 8-9, 2020.
15) Kumar, A., Choudhary, R., **Kataki, R.,** Kumar, A., Narzari, R. *presented a paper*, Application of Biomaterials in Road Construction: Evaluation of Permanent Deformation Characteristics of Biochar Modified Asphalt Binders, International Conference on Smart Materials for Sustainable Technology (SMST-2020), organized by the Society for Interdisciplinary Research in Materials & Biology, Goa, February 23-25, 2020 **[Best Poster Presentation Award]**.
16) Sohtun, P., Saikia, B. K., **Kataki, R.** *presented a paper*, Doped activated carbon prepared from abundant coal resource for using in energy storage device, in an International Conference on Engineering Sciences & Technologies for Environmental Care (ESTEC-2020) organized by CSIR-North East Institute of Science & Technology (NEIST), Jorhat, Assam, February 20-22, 2020.
17) Kataki R. *presented a paper, Weeds as a bioenergy feedstock for pyrolytic valorization to biofuel and biomaterials,* in the Indian Society of Weed Science (ISWS) Biennial Conference on "Weed Management for Enhancing Farmers' Income and Food Security", organized by ISWS, ICAR - Central Coastal Agricultural Research Institute, Goa, & ICAR - Directorate of Weed Research, Jabalpur, at ICAR-CCARI, Goa, 5-7 February, 2020.
18) Mazumdar, N. J., Ahmed, E., Pant, K. K., **Kataki, R.** *presented a paper,* A comprehensive review on hydrogenation of furfural to furfuryl alcohol, in an International Conference on Advances in Chemical Engineering-2020 (AdChE-2020), Department of Chemical Engineering, University of Petroleum and Energy Studies, Dehradun, February 5-7, 2020.

During 2019

19) Narzari, R., **Kataki, R.,** *presented a paper,* Influence of different rates of biochar amendment on soil quality and growth of *Oroxylum indicum*, in the 3rdInternational Conference on Energy and Environmental Science (ICEES-2019), Seoul, South Korea, January 26-29, 2019.
20) Bhuyan, N., Narzari, R., Sut, D., Bora, N., **Kataki, R.,** *presented a paper,* Valorization of waste biomass for production of value added products, in a National Symposium on Sustainable Waste Management (SWM 2019), Department of Energy, Tezpur University, Tezpur, Assam, August 03, 2019.
21) Bhuyan, N., Narzari, R., and **Kataki, R.,** *presented a paper*, Comparative assessment of artificial neural network and response surface methodology for evaluation of the predictive capability on bio-oil yield of *Tithonia diversifolia* pyrolysis, in an International Conference on New Horizons in Biotechnology (NHBT 2019), Thiruvananthapuram, Kerala, India, November 20-24, 2019.
22) Bora, N., Jayswal, V. K., and **Kataki, R.,** *presented a paper*, Experimental Analysis of Chemically Activated Sugarcane Bagasse Biochar for Supercapacitor Application, in an International Conference on New Horizons in Biotechnology (NHBT 2019), Thiruvananthapuram, Kerala, India, November 20-24, 2019.
23) Kumar, A., Choudhary, R., Nirmal, S.K., Pandey, I.K., and **Kataki, R.,** *presented a paper,* Towards sustainable asphalt binders: Evaluation of bio-asphalt binders and mixes with biochar, in the 80th Annual Session of the Indian Roads Congress, Patna, Bihar, December 12 – 15, 2019 **[Best paper presentation award]**.
24) Mazumdar, N. J., Ahmed, E., Pant, K. K., **Kataki, R.** *presented a paper,* Production of Furfuryl alcohol from furfural: A comprehensive review on ex-situ and in-situ hydrogenation, in the 72ndAnnual Session of Indian Institute of Chemical Engineers, Indian Institute of Technology Delhi, New Delhi, December 15-19, 2019.

During 2018

25) Gogoi, L., **Kataki, R.,** *presented a paper,* To Study the Efficacy of Forest Litter Biochar on Plant Growth, in an International Conference on Renewable and Alternate Energy (ICRAE- 2018), organized by Assam Science and Technology University, Guwahati, Assam, December 4-6, 2018.
26) Bhuyan, N., and **Kataki, R.,** *presented a paper,* Characterization of Carbonaceous Product Obtained by Pyrolysis and Hydrothermal Carbonization of *Pistia stratiote*, in an International Conference on

Renewable and Alternate Energy (ICRAE- 2018), organized by Assam Science and Technology University, Guwahati, Assam, December 4-6, 2018.

27) Gogoi, S., Narzari, R., Bordoloi N., Sut, D., Gogoi, L., Bhuyan, N., and **Kataki, R.**, *presented a paper,* Temperature influence on quality and yield of pyrolytic products of seed cake of *Kayea assamica*, in the 8th International Conference on Sustainable Waste Management, organised by Acharya Nagarjuna University, Guntur, Vijayawada, Andra Pradesh, November 22-24, 2018.

28) Gogoi, S., Bhuyan, N., Sut, D., Narzari, R., Gogoi, L., and **Kataki, R.,** *presented a paper,* Sesame Stalk as a Feedstock for Thermo-chemical Conversion: Products Distribution and Characterization, in the 8th International Conference on sustainable waste management, organised by Acharya Nagarjuna University, Guntur, Vijayawada, Andra Pradesh, November 22-24, 2018.

29) Goswami, P.K., Choudhury, N.D., and Kataki, R., *presented a paper,* Comparison of Various Solar Radiation data Sources for Feasibility study of Parabolic Trough Collector Power Plant in Assam, in the 1st International Conference on Recent Innovations and Development in Mechanical Engineering (IC-RIDME 2018), organized by National Institute of Technology, Meghalaya, Assam, India, November 8-10, 2018.

30) Borkotoki, B., Gogoi, N.K., Saikia, P., **Kataki, R.,** Narzari, R. and Gogoi, N., *presented a paper,* Charcterization of *Ipomoea carnea* biochar and its soil application, in the 27th National Conference of Soil Conservation Society of India on Sustainable Management of Soil and Water Resources for Doubling Farmers' income, AAU, Jorhat, October 25-27, 2018. **[Best Poster Presentation Award]**.

31) Baruah, B., Tiwari, P., Thakur, P. and **Kataki, R.** presented a paper, *Detailed physicochemical and thermochemical analyses of Indian oil shale*, in the 25th edition of the International Symposium on Chemical Reaction Engineering (ISCRE25), in Florence, Italy, 20-23 May 2018.

32) Kumar, A., Choudhary, R., Narzari, R., and **Kataki, R.,** *presented a paper,* Rheological Evaluation of Asphalt Binders Containing Pyrolytic Biochar, in the 17th Annual International Conference on Pavement Engineering, Asphalt Technology and Infrastructure, *organized by* Liverpool John Moores University, Liverpool, United Kingdom, February 21-22, 2018.

During 2017

33) Narzari, R., Bordoloi, N., Sut, D., Baruah, B., Poddar, M. and **Kataki, R.,** presented a paper, *Fabrication and characterization of magnetic biochar from Lantana camara through pyrolysis for Chromium (VI) removal,* in an ***International Conference on Emerging Trends in Biotechnology for Waste Conversion (ETBWC-2017),*** *organised by CSIR-NEERI,* and BRSI, Nagpur, Maharashtra, October 8-10, 2017.

34) Sut, D., Narzari, R., Bhuyan, N. and **Kataki, R.,** presented a paper, *Biodiesel production from Michelia champaca oil*: *Process optimization, kinetic modelling and rheological behaviour study,* in an ***International Conference onEmerging Trends in Biotechnology for Waste Conversion (ETBWC-2017),*** *organised by CSIR-NEERI,* and BRSI, Nagpur, Maharashtra, October 8-10, 2017.

35) Baruah, B., Tiwari, P. and **Kataki, R.,** presented a paper, *Upper Assam Oil Shale: A Detailed Physicochemical & Thermochemical Study*, in the ***Annual Chemical Engineering Symposium "Reflux-2017"***, *organised by IIT-Guwahati*, Guwahati, Assam, March 25-26, 2017.

36) Bordoloi, N. and **Kataki, R.** presented a paper, *An overview of thermochemical conversion of renewable resources*, in a ***National seminar on Petroleum Biotechnology and Bioenergy,*** *organised by Department of Molecular Biology and Biotechnology and co-organized by Department of Energy, Tezpur University*, Tezpur, Assam, March 3-4, 2017.

37) Sut, D., Narzari, R. and **Kataki, R.** presented a paper, *Biodiesel as an alternative fuel for compression ignition engine*: *A Review*, in a ***National Seminar on Petroleum Biotechnology and Bioenergy,*** *organised by Department of Molecular Biology and Biotechnology and co-organized by Department of Energy, Tezpur University*, Tezpur, Assam, March 3-4, 2017.

38) Baruah, B., Tiwari, P., Thakur, P. and Kataki, R. presented a paper, *Upper Assam Oil Shales: A Detailed Physicochemical & Thermochemical Study*, in a National Seminar on Petroleum Biotechnology and

Bioenergy, organised by Department of Molecular Biology and Biotechnology and co-organized by Department of Energy, Tezpur University, Tezpur, Assam, March 3-4, 2017.

39) Saikia, R and **Kataki, R.,** presented a paper, *Perennial grass (Saccharum sponteneum L.) from North-East India*: *candidacy for alternate renewable fuel and biomaterial,* in a ***National Conference on Renewable Energy Technology Utilization for Rural Development (NCRETURD-2017),*** *organised by Department Of Energy Engineering, North-Eastern Hill University*, Shillong, Meghalaya, February 27 – March 1, 2017.

40) Sut, D. and **Kataki, R.,** presented a paper, *Investigation of Litsea leata seed as an energy source by thermochemical conversion,* in a ***National Conference on Renewable Energy Technology Utilization for Rural Development (NCRETURD-2017),*** *organised by Department Of Energy Engineering, North-Eastern Hill University*, Shillong, Meghalaya, February 27 – March 1, 2017 **[Best Poster Presentation Award].**

41) Bhuyan, N., Saikia, N. and **Kataki, R.,** presented a paper, *Thermo-kinetic evaluations of Messua ferrea stem,* in a ***National Conference on Renewable Energy Technology Utilization for Rural Development (NCRETURD-2017),*** *organised by Department of Energy Engineering, North-Eastern Hill University*, Shillong, Meghalaya, February 27 – March 1, 2017.

42) Chetia, U.K., Sarmah, N. and **Kataki, R.,** presented a paper, *Performance study of Static and Tracking PV Systems at Tezpur University Campus,* in a ***National Conference on Renewable Energy Technology Utilization for Rural Development (NCRETURD-2017),*** *organised by Department of Energy Engineering, North-Eastern Hill University*, Shillong, Meghalaya, February 27 – March 1, 2017.

43) Yadav, A. and **Kataki, R.,** presented a paper, *Characterization of bio-oil and biochar produced from Lantana camara and study the effects of torrefaction on products,* in a ***National Conference on Renewable Energy Technology Utilization for Rural Development (NCRETURD-2017),*** *organised by Department of Energy Engineering, North-Eastern Hill University*, Shillong, Meghalaya, February 27 – March 1, 2017.

44) Narzari, R. and **Kataki, R.,** Presented a paper, *Biochar as a low cost and sustainable remediation option*:*A review,* in a ***UGC-SAP National Seminar on Climate Change and Society,*** *organised by Department of Environmental Science, Tezpur University,* Tezpur, Assam, February 24-25, 2017.

45) Gogoi, L., Borkotoki, B. and **Kataki, R.,** Presented a paper, *To Study the Efficacy of biochar treatment in mixed forest plantation,* in a ***National Seminar on Climate Change and Society,*** *organised by Department of Environmental Science, Tezpur University,* Tezpur, Assam, February 24-25, 2017.

During 2016

46) **Kataki, R.** attended the 4th Triennial International Workshop, Evolving Energy Models in Emerging Economies – Post COP21, *organized by NAM S&T Centre, New Delhi and SEEM, India*, Ahmedabad, Gujrat, December 12-14, 2016.

47) Gogoi, D., Bordoloi, N., Narzari, R., Saikia, R., Goswami, R. and **Kataki, R.,** presented a paper, *Effect of torrefaction on yield and quality of pyrolytic products of Arecanut Husk: an agro processing wastes*, in an ***International Conference on Current Trends in Biotechnology (ICCB-2016),*** *organized by VIT University*, Vellore, Tamil Nadu, December 8-10, 2016 **[Best Poster Presentation Award]**.

48) Narzari, R., Bordoloi, N. and **Kataki, R.**, presented a paper, *Fabrication and evaluation of physicochemical development of bio-carbons obtained from valorization of biowastes*, in an ***International Conference on Current Trends in Biotechnology (ICCB-2016)***, *organized by BRSI and VIT University*, Vellore, Tamil Nadu, December 8-10, 2016.

During 2015

49) Basumatary, V., Saikia, R., Narzari, R., Bordoloi, N., Gogoi, L., Sut, D. and **Kataki, R.** presented a paper, *Tea factory waste as a feedstock for thermo-chemical conversion to biofuel and biomaterial*, In the ***5th International Conference on Advances in Energy Research,*** *organized by the Department of Energy Science and Engineering, Indian Institute of Technology Bombay*, Mumbai, December 15-17, 2015.

50) Chutia, S., Narzari, R., Bordoloi, N., Saikia, R., Gogoi, L., Sut, D. and **Kataki, R.,** presented a paper, *Pyrolysis of Dried Black Liquor Solids and Characterization of the Biochar and Biooil*, In the ***5th International Conference on Advances in Energy Research,*** *organized by the Department of Energy Science and Engineering, Indian Institute of Technology Bombay, Mumbai,* December 15-17, 2015.

51) Bordoloi, N., Narzary, R., Sut, D., Saikia, R., Chutia, R.S., **Kataki, R.,** presented a paper, *Characterization of bio-oil and its sub-fractions from pyrolysis of Scenedesmus dimorphus,*in an ***International Conference on New Horizons in Biotechnology (NHBT 2015),***organized jointly by the CSIR-National Institute for Interdisciplinary Science & Technology, Trivandrum, Kerala and Biotech Research Society of India, 22-25 November, 2015.

During 2014

52) Brahma, D.K., Sut, D. and **Kataki, R.** presented a paper, *Kayea assamica* oil biodiesel: an alternate fuel for CI engine, In an ***International symposium on Aspects of Mechanical Engineering and Technology for Industry,*** *organized by NERIST, Itanagar*, December 6-8, 2014.

53) Saikia, R., **Kataki, R.** and Pant, K.K.presented a paper, Perennial grass as a feedstock for thermo-chemical conversion to energy and materials, in an***International Conference on Emerging Trends inBiotechnology -2014,***organized by BRSI and JNU at JNU New Delhi, November 6-9, 2014.

54) Bordoloi, Neonjyoti,Phukon, Mayur M.,Chutia, Rahul S.,Bora, A. and**Kataki,R.** presented a paper, Microalgae as a source of Bio-fuel,in an***International Conference on Harnessing Natural Resources for Sustainable Development: Global Trends,***organised by Cotton College, Guwahati, January 29-31, 2014.

55) Narzari, Rumi, **Kataki, R.,** Gogoi, N. and Borkotoki,B.presented a paper, Biochar as a Potential soil Amendment and Carbon Sequestrate, in an ***International Conference on Harnessing Natural Resources for Sustainable Development: Global Trends,***organised by Cotton College, Guwahati, January 29-31, 2014.

56) Sut, D., Brahma, Deepak K. and **Kataki, R.** presented a paper, Potential non-edible oil Resources in India as feedstock for Biodiesel Production" in an***International Conference on Harnessing Natural Resources for Sustainable Development: Global Trends***, organised by Cotton College, Guwahati, January 29-31, 2014.

57) Saikia, Ruprekha and **Kataki, R.** presented a paper, Lignocellulosic Perennial grass Biomass as a Potential feedstock for Pyrolytic bio-oil Production,in an***International Conference on Harnessing Natural Resources for Sustainable Development: Global Trends,***organised by Cotton College, Guwahati, January 29-31, 2014.

58) Gogoi, Debajeet and **Kataki,R.** presented a paper, Fast Pyrolysis Reactors and Recent Progress in Design: A Review,in an***International Conference on Harnessing Natural Resources for Sustainable Development: Global Trends,***organised by Cotton College, Guwahati, January 29-31, 2014.

59) Basumatary,Vivek and **Kataki,R.** presented a paper, Activated Carbons from Agricultural Residues: A Review,in an ***International Conference on Harnessing Natural Resources for Sustainable Development: Global Trends,***organised by Cotton College, Guwahati, January 29-31, 2014.

60) Brahma, Deepak K., Sut, D. and **Kataki, R.**presented a paper, Biodiesel production from non-edible feedstock available in north-eastern region of India and their engine performance,in an ***International Conference on Harnessing Natural Resources for Sustainable Development: Global Trends,*** organised by Cotton College, Guwahati, January 29-31, 2014.

61) Brahma, Deepak K., Sut, D. and **Kataki, R.** presented a paper, Biodiesel production from *Kayea assamica*, itscharacterization and performance analysis in direct injection diesel engine" in an***International Conference on Green Energy and Smart Materials Through Science, Technology & Management (GESM'14),*** organised by Gauhati University, Guwahati, January 21 -23, 2014.

62) Jayswal, Vijay K., **Kataki, R.** and Samdarshi, S. K. presented a paper entitled "Electrochemical properties of Ceria doped titania thin films for Solar Energy applications: A review" in an***International Conference***

on Green Energy and Smart Materials Through Science, Technology & Management (GESM'14),organised by Gauhati University, Guwahati, January 21 -23, 2014.

During 2013

63) Jayswal VK, Verma R, **Kataki R,** and Samdarshi SK. presented a paper, Structural, Optical and Electrochemical properties of Ceria doped Titania thin films for Solar Energy Applications: a Review,in the***India-Japan Workshop on Bio-molecular Electronics & Organic Nanotechnology for Environment Preservation***, organised by Delhi Technological University (DTU), New Delhi, December 13-15,2013.

64) Sut D, and **Kataki R.** presented a paper, Prospects of biodiesel production from non-edible oil seeds of north-east India: A review,in the ***3rd National Conference on Recent Advances in Bio-energy Research,***organized by Sardar Swaran Singh National Institute of Renewable Energy, Kapurthala, Punjab, November 22-24, 2013.

65) Choudhury ND, Gohain PP, Bichitra B, Baruah SD, and **Kataki R.** presented a paper, Production of hydrocarbon liquid by pyrolysis of *Camellia sinensis* (Tea) seed deoiled cake and characterization of Products, in the ***3rd National Conference on Recent Advances in Bio-energy Research,***organized by Sardar Swaran Singh National Institute of Renewable Energy, Kapurthala, Punjab,November 22-24, 2013.

66) Chutia, RS, **Kataki R, and** Bhaskar T. attended and presented a paper, Characterisation of liquid and solid product from pyrolysis of *Pongamia glabra* deoiled cake,in an***International Conference on Advances in Biotechnology and Bioinformatics (ICABB 2013)***, organised by Dr. D. Y. Patil Biotechnology and Bioinformatics Institute, Pune in association with Biotech Research Society of India, Le Meridian, Pune, November 25 -27, 2013.

67) Das C, Chilukuri S, and **Kataki R.** attended and presented a paper, Selective Hydrogenolysis of glycerol to propanediol over Cu and Ni dope spinels,in an***International Conference on Advances in Biotechnology and Bioinformatics (ICABB 2013)***, organisedbyDr. D. Y. Patil Biotechnology and Bioinformatics Institute, Pune in association with Biotech Research Society of India, Le Meridian, Pune,November 25 -27, 2013.

68) Chutia RS, **Kataki R, and** Bhaskar T. presented a paper, Production of Renewable Hydrocarbon through Catalytic pyrolysis of Large Bio-Polymers: A Review, in the***7th International symposium on feedstock recycling of polymeric materials,***organized by CSIR-IIP, Dehradun, at India Habitat Centre, New Delhi, October 23 -26, 2013.

69) Sut D, Bora DK, and **Kataki R.** attended andpresented a paper, Evaluation of characteristics of *Thervetia Peruviana* biodiesel and performance analysis in diesel Engine, in the ***7th International symposium on feedstock recycling of polymeric materials,*** organized by CSIR-IIP, Dehradun, at India Habitat Centre, New Delhi, October 23 -26, 2013.

70) Choudhary ND, Chutia RS, and **Kataki R.** presented a paper, Industrial Waste as Feedstock for Biofuel and Biomaterial Production,in the ***7th International symposium on feedstock recycling of polymeric materials,***organized by CSIR-IIP, Dehradun, at India Habitat Centre, New Delhi, October 23 -26, 2013.

71) Gohain PP, Baruah SD, and **Kataki R.** presented a paper, Biodiesel production from Tea seed oil,in the ***7th International Symposium on feedstock recycling of polymeric materials***,organized by CSIR-IIP, Dehradun, at India Habitat Centre, New Delhi, October 23 -26, 2013.

72) **Kataki R.** participated in the SAHYOG Mini-Symposium and Twinning Workshop (an Indo-EU Collaborative project) at Utrecht, The Netherlands, October 28-29, 2013.

During 2012

73) **Kataki R.** participated in the first Kick-off Meeting/Symposia of all SAHYOG (Indo-European Union Project) partners at Brussels, Belgium, January 12-13, 2012

74) Chutia RS, and **Kataki R.** attended andpresented a paper, Conversion of biowastes to biooil and biochar, in a ***National Seminar on New and Innovative Renewable Energy and Energy Efficiency***, organised by

the Environmental Watch and Management Institute and sponsored by MNRE, New Delhi, Guwahati, March 21-22, 2012.

During 2011

75) Borah M, Chutia RS, and **Kataki R.** attended andpresented a paper,Oil spillage at Lakwa drilling site of Sivasagar district, Assam:evaluation of spilled crude oil as influenced by weathering processes, in a***National Seminar on Renewable Energy Technology***, organised by NERIST, Itanagar, September 24-25, 2011.

76) Nath T, Das M, and **Kataki R.** attended and presented a paper, Ligno-cellulosic alcohol fermentation from bagasse, in a ***National Seminar on Renewable Energy Technology***, organised by NERIST, Itanagar, September 24-25, 2011.

77) Chutia RS, Borah M, Nath T, and **Kataki R**. attended and presented a paper, Thermo-chemical conversion of biomass as a sustainable renewable energy technology, in a***National Seminar on Renewable Energy Technology,*** organised by NERIST, Itanagar, September 24-25, 2011.

During 2010

78) **Kataki, R.** attended anddelivered an oral presentation, Deoiled seed cakes of *P. glabra* and *M. ferrea* as potential feedstock for thermochemical conversion, in the **2010 International Chemical Congress of Pacific Basin Societies (Pacifichem2010)**, Honolulu, Hawaii, USA, December 15-20, 2010.

79) Nath, T. and**Kataki, R.** attended andpresented a paper, Ethanol fermentation from lignocellulosic biomass with special reference to bagasse, in a **National Seminar on Renewable Energy Technology** (RETIP-2010), organised by NERIST, Itanagar, September 24-25, 2010.

80) Chutia, Rahul S. and **Kataki, R.** presented a paper, Biochar production as a byproduct of bio-oil production through pyrolysis of bio-wastes, in a ***National Workshop on Biochar Production and Uses***organized by ARTI and UK Biochar Research Centre, Pune, September 16-17, 2010.

81) Chutia, Rahul S. and **Kataki, R.** attended andpresented a paper, Study of pyrolytic behaviour of deoiled seed cakes of *Pongamia glabra* and *Mesua ferea* by TGA for their Potential Use as Bio-oil" in a***National Seminar on Renewable Energy Tech (RETIP-2010),*** organised by NERIST, Itanagar, September 24-25, 2010.

82) **Kataki, R.** attended andpresented a paper, Conversion of lignocellulosic biomass wastes to wealth – *biooil & biochar,* in a ***National Seminar on Urban Waste Management: Quest for Solutions***organized by Sibsagar College, Sivasagar, Assam, September 23-25, 2010.

83) Chutia, Rahul S. and **Kataki, R.** attended andpresented a paper, Biowastes as a potential feedstock for thermo-chemical conversion to biooil and biochar, in a ***National Conference on Renewable Energy (NCRE2010)*** organised by Tezpur University, Tezpur, March 23-25, 2010.

84) Saikia, Prasenjit, **Kataki, R.** andKonwer, D. attended andpresented a paper, Greenhouse Gas emission from solid fuels in the rural households of Assam: A case study of Sonitpur district, in a ***National Conference on Renewable Energy (NCRE2010)*** organised by Tezpur University, Tezpur, March 23-25, 2010.

85) Kashyap, S., **Kataki, R.** andBorah, A.C. attended andpresented a paper, An overview and assessment of Indian biomass energy sector under the Clean Development Mechanism (CDM)in a ***National Conference on Renewable Energy (NCRE2010)***, organised by Tezpur University, Tezpur, March 23-25, 2010.

86) Mahanta, B. and **Kataki, R.** presented a paper, Hydrothermal conversion of Lignin, in a ***National Conference on Innovations in Engineering***, organized by Delhi Technological University, Delhi, November 1-2, 2010.

87) Chutia, Rahul S. and **Kataki, R.** presented a paper, Study of pyrolytic behaviour of deoiled seed cakes for their potential use as bio-oil, in a ***National Conference on Innovations in Engineering***, organized by Delhi Technological University, Delhi, November 1-2, 2010.

During 2009 and before

88) **Kataki, R.** attended the 5th proficiency course onModern Practices in Petroleum Exploration, in Keshav Dev Malviya Institute of Petroleum Exploration (KDMIPE) ONGC – Dehradun, September 14 – 19, 2009.

89) Saikia, P., **Kataki, R**. and Konwer, D. presented a paper, Indoor air pollution due to solid fuel combustion in Sonitpur district of Assam, India - A case study, in the **South Asia Regional Workshop on Indoor Air Pollution, Health and Household Energy,** organized by Practical Action, Kathmandu, Nepal, February 27 - 28, 2006.

90) **Kataki, R.** and Saikia, P. attended andpresented a paper, Bamboo and its potential as a source of bioenergy in North-East India, in a **National Seminar on Renewable Energy and Energy Management**, organized by NERIWALM, Tezpur, August 23-24, 2005.

91) **Kataki, R.** participated in a two dayWorkshop for the preparation of vision NER: 2020, Organized by Tezpur University, December 22-23, 2005.

92) **Kataki, R.** attended and presented a poster, in a National workshop on Science and Technology for Regional Development: Case for North – East India, organized jointly by IIT Guwahati and Tezpur University, held at IIT Guwahati, February 3-6, 2004.

93) **Kataki, R**., Konwer, D. and Saikia, P. attended and presented a paper, Biomass yield and energy value of some agro-forestry tree species of north-east India, in the ***1st World Congress on Agro-forestry*****,** Orlando, Florida, USA, June27–July 2, 2004.

94) **Kataki, R**. participated in one day Training cum Demonstration programme on Bamboo based biomass gasifier, organized by Dept. of Energy Tezpur University, November 20, 2004.

95) **Kataki, R**. participated in the workshop on Remote sensing and GIS for Natural Resources Surveys in North-East India, organized by Mathematical Sciences, Tezpur University, July 20-23, 2000.

96) **Kataki, R**. participated in the workshop on Peoples participation in Biodiversity Conservation, organized by The Northeastern Biodiversity Research Cell and Synjuk Seng Samla Shnong, Shillong, March 4-6, 1999.

97) **Kataki, R**. attended and presented a paper, Consumption and supply of fuelwood: A case study of some villages in Dibrugarh and Darrang districts of Assam, in the ***XVIII Indian Geography Congress***, organized by North-Eastern Hill University, Shillong, Meghalaya, October 29-31, 1996.

98) **Kataki, R.,** Deka D. and Konwer, D. attended and presented a paper, Fuelwood characteristics of some indigenous wood species of north-east India, in an ***International Conference on Biomass Energy Systems***, organized by the British High Commission and TERI, New Delhi, February 26-27, 1996.

CONSULTANCY & RESEARCH PROJECTS HANDLED AS PRINCIPAL INVESTIGATOR

1) A National Consultancy on Energy Study with special reference to wood balance situation in Assam, Principal Chief Conservator of Forests, Govt. of Assam (Rs. 5.79 lakhs), Status – Completed.

2) A collaborative research project under Indo-European Union collaboration titled "**S**trengthening networking on Biom**A**ss researc**H** and biowaste conversion-biotechnolog**Y** for Eur**O**pe India inte**G**ration (**SAHYOG**)", **supported by the European Commission within the 7th Framework Programme (FP7-289615) and by the Department of Biotechnology (DBT) of the Indian Ministry of Science and Technology, as one of the PI of 14 multi-national partners** (Rs. 44.79 Lakh), Status – Completed (SAHYOG website: www.sahyog-europa-india.eu).

3) A collaborative research project (with Assam Agricultural University), Production of Biochar from various bio-wastes and its soil application for sustainable soil management and mitigation of GHG emission, **sponsored by UGC** (Rs. 12.958 Lakh.), Status – Completed.

4) A collaborative research project (with CS Centre for Women Studies), Women empowerment and skill development through technological intervention in cooking stove, sponsored by DSIR, Ministry of Science & Technology (Rs. 15.97 lakh), Status – Completed.

5) A research project, Biomass conversion to Fuels and chemicals, sponsored by AICTE (Rs. 23 lakh) – Status – Completed.
6) A National Consultancy, Water quality baseline survey and follow-up monitoring assessment of hydrological and biological status of streams in upper watersheds for Water Resource Conservation (COSFOM), Manipur, awarded by the PCCF, Govt. of Manipur (Rs. 58,98,820/-) – Ongoing.
7) An International Consultancy, *Waste biomass characterization & valorization through production of biochar and its application as soil amendment and other uses,* awarded by **PT. Tanjungenim Lestari Pulp and Paper (PT. TEL),** Desa Niru-Tebat Agung, Kec. Rambang Dangku, Ka.Muara Enim, Sumtera Selatan 31172, Indonesia (TeL, A Foreign Investment Company of Marubeni Corporation, Japan) (US$ 15,552) – Ongoing.
8) A Conservation approach for Structural Heritage of the Ahom Dynasty through the intervention of Science & Technology (CASHAD) – Indian Knowledge System, Ministry of Education, (Rs. 13,64,000/-) – Ongoing.
9) Developing a Climate Resilient Technology utilizing the indigenous Plant Growth Promoting Microbes (PGPM) for growing vegetables in the rice fallow land of Assam – Biotechnology Industry Research Assistance Council (BIRAC), (Rs. 77,80,000/-) – Ongoing.

TECHNICAL REPORTS

1) Success of afforestation and tree planting activities undertaken during 1991-92 in Jorhat district of Assam. Regional Centre, National Afforestation and Eco-Development Board (MoEF), NEHU, Shillong. (B.K. Tiwari & R.S. Tripathi). Investigators - B.P. Mishra, **R. Kataki** & A.J. Goswami. 1997.
2) **Final Consultancy Report (2012), Energy Study with special reference to wood balance situation in Assam,** submitted to the Principal Chief Conservator of Forests, Govt. of Assam.
3) **Strategic Research Agenda on bio-based economy in EU and India**, *A report produced within the framework of the project SAHYOG (Strengthening Networking on Biomass Research and Biowaste Conversion – Biotechnology for Europe India Integration), submitted to EU and DBT.*http://www.sahyog-europa-india.eu/images/SAHYOG-Strategic_Research_Agenda-Final.pdf
4) **Final Project Report (2011-2015),** Strengthening networking on biomAss researcH and biowasteconversion – biotechnologY for EurOpe India integration (SAHYOG), submitted to the Department of Biotechnology, Ministry of Science and Technology, Govt. of India.
5) **Final Project Report (2013-2017),** Production of Biochar from various bio-wastes and its soil application for sustainable soil management and mitigation of GHG emission, submitted to UGC.
6) **Final Project Report (2019-20),** Women empowerment and skill development through technological intervention in cooking stove, submitted to the DSIR, MST, Govt. of India.

SEMINAR/CONFERENCE/SUMMER SCHOOL ORGANIZED

- **Member** of the **National Organizing Committee,** International Conference on Emerging Trends and Innovations in Biotechnology (BIOSPECTRUM-2023) during November 30 to December 2, 2023 organized by Mar Athanasios College for Advanced Studies Tiruvalla (MACFAST), Tiruvalla, Kerala, India.
- **Member** of the **National Organizing Committee,** International Conference on New Horizons in Biotechnology (NHBT-2023) November 26-29, 2023, organized by the CSIR-NIIST, Trivandrum, and BRSI at Trivandrum Kerala India.

- **Member** of the **National Organizing Committee,** International Conference on Biotechnology for Sustainable Bioresources and Bioeconomy (BSBB-2022), Indian Institute of Technology, Guwahati, India, December 7-11, 2022.
- **Member** of the **National Advisory Board,** National Conference on Environmental and Industrial Biotechnology (NCEIB-2022), Organised By Department of Biotechnology, Dr. Ambedkar Institute of Technology for Handicapped, Kanpur, U.P., India, November 10-12, 2022.
- **Member** of the **National Organizing Committee,** VI International Conference on Sustainable Energy and Environmental Challenges (VI SEEC), Organized by **International Society for Energy, Environment and Sustainability (ISEES),** Lucknow, December 27-29, 2021.
- **Member** of the **National Organizing Committee,** ISEES 4th International Conference on Sustainable Energy & Environmental Challenges, CSIR-NEERI, Nagpur, India, November 27-29, 2019.
- **Member** of the **National Organizing Committee**, International Conference on New Horizons in Biotechnology (NHBT-2019), organized by CSIR-NIIST, Trivandrum, India, November 20-24, 2019.
- **Member** of the **National Organizing Committee,** ISEES 3rd International Conference on Sustainable Energy and Environmental Challenges (SEEC 2018), Indian Institute of Technology Roorkee, December 18-21, 2018.
- **Member** of the **National Organizing Committee,** International Conference onBiotechnological Research and Innovation for Sustainable Development, XV BRSI Convention and V Asia-Oceania Algae Innovation Summit (AOAIS), CSIR-Indian Institute of Chemical Technology, Hyderabd, November 22-25, 2018
- **Member** of the **National Organizing Committee,** ISEES 2ndInternational Conference on Sustainable Energy and Environmental Challenges (SEEC2018), Indian Institute of Science, Bangalore, January 1-4, 2018.
- **Member** of the **National Organizing Committee,** International Conference on Emerging Trends in Biotechnology for Waste Conversion (ETBWC-2017), XIV Convention of the Biotech Research Society, India, CSIR - National Environmental Engineering Research Institute, Nagpur, India, October 8 - 10, 2017.
- **Member** of the **National Organizing Committee,** ISEES 1st International Conference on Sustainable Energy and Environmental Challenges, SEEC-2017 held at CIAB, Mohali, 26-28 February, 2017.
- **Organizing Secretary** of the ONGC-CPBT sponsored **National Seminar on Petroleum Biotechnology and Bioenergy,** jointly organized by the ONGC-Centre for Petroleum Biotechnology, Departments of Molecular Biology & Biotechnology, and co-organized by the Department of Energy at Tezpur University, Tezpur, March 3-4, 2017.
- **Member** of the **National Organizing Committee**, International Conference on Current Trends in Biotechnology (ICCB-2016), VIT University, Vellore, Tamil Nadu, December 8-10, 2016.
- **Convener** of the Industry - Academia Meet on Consultative cum Awareness Meeting on Renewable Energy Application at North East India and Interaction of Finishing Students with Industry, sponsored by AICTE - NEQIP, organized at Department of Energy, Tezpur University, November 3-4, 2015
- **Coordinator** of the **II SAHYOG Summer School** organized under the ambit of the Indo-European Union Collaborative Research project "SAHYOG" at Tezpur University, July 20-26, 2014.
- **Member of the National Scientific Committee** of the ***International Conference on Emerging Trends in Biotechnology (ICETB 2014)*** organized by Jawaharlal Nehru University, New Delhi, November 6 - 9, 2014.
- **Chairperson** of the Publication Committee of the National Seminar on Role of Bioactive Compounds in Foods on Human Health, organised by Tezpur University, November 14-16, 2011.
- **Co-Convener** of the ***International Congress on Renewable Energy 2011 (ICORE2011)***organized by Tezpur University, November 2-4, 2011.

- **Convener** of the ***National Conference on Renewable Energy (NCRE2010)*** organized at Tezpur University jointly with NECRD, Indira Gandhi National Open University, Guwahati, March 23-25, 2010.
- **Convener** of the ***National Seminar on Renewable Energy and Energy Management*** at NERIWALM, Tezpur, August 23-24, 2005.

COURSE-CURRICULUM DEVELOPMENT

Developed a Choice Based Credit Transfer course, **Energy, Sustainability and the Environment**, for the PhD programme of the Department of Energy, Tezpur University.

NATIONAL AND INTERNATIONAL COLLABORATION

National	***International***
1. Dr. Manish Kumar, CSIR-IMMT, Bhubaneswar	1. Dr. Robbert Bakker, WUR, The Netherlands
2. Dr. Nirmali Gogoi, Tezpur University	2. Dr. Kees Kwant, NL Agency, The Netherlands
3. Dr. Bikram Borkotoki, AAU	3.Dr. Rainer Janssen, WIP, Germany
4. Dr. Utsab Deb, DRL(DRDO), Tezpur	4. Dr Deepak Pant, VITO, Belgium
5. Prof. K K Pant, IIT Delhi	5. Dr Neeta Sharma, ENEA, Italy
6. Dr. B Saikia, CSIR-NEIST, Jorhat	6. Prof. Samir Khanal, Univ. of Hawaii, USA
7. Dr. Kalidas Upadhaya, Mizoram University	7. Dr Anuj K Chandel, CTC, Brazil
7. Dr. T Bhaskar, CSIR-IIP, Dehradun	8. Prof. Manuel Garcia-Perez, WSU, USA
8. Dr. S Venkata Mohan, CSIR-IICT, Hyderabad	
9. Prof. Kishor Goswami, IITKgp	

PhD & MTech THESIS SUPERVISED

PhD thesis supervised: 09 (Nine)

- **Rahul S. Chutia,** *Thermochemical conversion of bioenergy byproducts to biooil and biomaterials*, (currently working as a National-PDF, Dept. of Energy Engineering, NEHU, Shillong), (Joined in July 2008, thesis submitted December 2013, degree awarded in July 2016).
- **Neonjyoti Bordoloi,** *Pyrolytic conversion of biowaste and algal biomass,* (currently working as an Asstt Professor, Department of Chemistry, Assam Down Town University, Guwahati) (Joined in January 2013, thesis submitted December 2017, degree awarded in July 2018).
- **H. T. Lalmuankima,** *Studies on wood charcoal production, utilization and its environmental impact in Mizoram* (As a Joint Supervisor, PhD Degree awarded by Mizoram University, India). (Joined in August 2011, thesis submitted May 2019, degree awarded in November 2019).
- **Debashis Sut,** *A biorefinery approach for production of biofuel and chemicals from the selected non-edible oil seeds of North-East India* (Joined in June 2013, thesis submitted December 2019, degree awarded in July 2020).
- **Ruprekha Saikia,** *Thermochemical conversion of perennial grass biomass to energy and biomaterial* (Joined in January 2014, thesis submitted December 2019, degree awarded in July 2020).
- **Rumi Narzari,** *Biowaste valorization to biochar and its soil application to investigate its impact on soil health and crop production* (Joined in June 2013, thesis submitted October 2019, degree awarded in January 2021).
- **Lina Gogoi,** Effects of biochar application in a mixed forest plantation: A Study (Joined in January 2015, thesis submitted December, 2020, degree awarded in July 2021).

- **Nilutpal Bhuyan,** Fixed-Bed Pyrolytic Conversion of Tithonia diversifolia: Process Optimization, Catalytic Effects and Kinetic Study (degree awarded in December 2024).
- **Anuron Deka,** A Circular Approach to Alkaline Urine Dehydration: Polymer-Based Solutions for pH Buffering, Water Recycling and Reduced Energy Footprint (degree awarded in December 2024).

MTech thesis supervised: 47 (Forty seven)

Batch	Name of the student	Current Position/Organization	Email
2007-09	Ruhit Jyoti Konwar	Registrar, Mahatma Gandhi University	*ruhit82@gmail.com*
	Satyabrot Gogoi	PG Teacher, Salt Brook Academy, Dibrugarh	*satyabrot@gmail.com*
	Shaya Basumatary	Asstt. Professor, CIT Kokrajhar	*shaya26@gmail.com*
2008-10	Bijan Mahanta	Dy. Chief Scientist, OIL, Duliajan	*bijanmahanta@gmail.com*
	Nayanjyoti Talukdar	Asstt. Professor, JIST, Jorhat	*go4nayan@gmail.com*
	Surjyakamal Chaliha	Sr. Chemist, ONGCL, Sivsagar	*chaliha7@gmail.com*
2009-11	Bichitra Bikash	Dy. Registrar (Acad.), Mahapurusha Srimanta Sankaradeva Viswavidyalaya	*bichi1111@gmail.com*
2010-12	Chandan Das	Process Engineer,	*chandand06@gmail.com*
	Rana Sengupta	-	*ranayou.sengupta3@gmail.com*
2011-13	Debashis Sut	Asstt. Professor, Dhemaji Polytecnic	*debashissut07@gmail.com*
	Nabajit D Choudhury	Asstt. Professor, AST University, Guwahati	*nabajit2013@gmail.com*
	Priyanko P Gohain	Asstt. Professor, USTM, Meghalaya	*priyanko_go@yahoo.in*
	Rajiyung S Barman	SBI, Guwahati	*han_sing229@yahoo.com*
	Subhajit Das	Guwahati High Court	*subhajitf2@gmail.com*
2012-14	Debajeet Gogoi	Govt of Assam	*debajeetgogoi28@gmail.com*
	Dipak Kumar Brahma	Asstt. Professor, Scholar's Academy, GHY	*deepakmailme34@gmail.com*
	Vijay Kumar Jayswal	PhD Student, University of Laval, Canada	*vkjay1991@gmail.com*
	Vivek Basumatary	NF Railway, Guwahati	*vivekbasumatary176@gmail.com*
2013-15	Arun J Dutta	Food Corporation of India	*adarunjyotidutta08@gmail.com*
	Manas J Pathak	SDO, APDCL	*manas98642@gmail.com*
	Shantanu Deka	PO, UCO Bank	*dekashantanu72@gmail.com*
	Swagat Chutia	Tezpur University	*swagat108@yahoo.com*
2014-16	Samarjit Gogoi	JRF, Kaziranga University	*samarjitipl123@gmail.com*
	Sanjay Das	NF Railway, Guwahati	*sanjayabhy@gmail.com*
2015-17	Abhishek Yadav	Assam Civil Service	*abhischin@gmail.com*
	Bhargav Baruah	Post Doctoral Associate, Ghent Univ.	*bhargavbaruah22@yahoo.com*
	Uttam Chetia	Entrepreneur	*uttamchetia1@gmail.com*
2016-18	Sneha Acharya	PhD Student, IIT Guwahati	*emailsneha90@gmail.com*
	Tanmay J Deka	PhD Student, Queen's University Belfast	*tanmaydeka@gmail.com*
2017-19	Bhawana Dahotia	-	*bhavna94dahotia@gmail.com*
	Dipanka Saikia	-	*dipankasaikia01@gmail.com*
	Neelam Bora	PhD Student, Tezpur University	*neelambora06@gmail.com*
	Uddipta Kumar Nath	EcoLance Private Limited, Guwahati	*unath8992@gmail.com*
2018-20	Nayan J Mazumdar	PhD Student, Queen's University Belfast	*nayan526@gmail.com*
	Phibarisha Sohtun	Self employed	*phibasohtun05@gmail.com*
	Rupalim Das	SELCO Foundation	*dasrupalim13@gmail.com*
	Samujjal Paul	JRF, IIT Guwahati	*samujjalpaul56@gmail.com*
2019-21	Pranita Devi	Govt. of Assam	
	Sudarshana Hazarika		
2020-22	Jyotimoni Devi	PhD Student, NIT Meghalaya	
	Krishnamoni Gogoi	-	
	Trishna Das	-	
2021-23	Nilotpal Baishya	Zee See Smart Solutions Pvt Ltd.	
	Ripunjoy Borah	-	
2022-24	Kalbari Basumatari	L&T	

Merennungla Imchen	-
Nishant Gogoi	IOCL, Guwahati

Current Research (PhD & MTech) Students:

PhD Students	*MTech Students*
1. Mr. Neelom Bora (*neelambora06@gmail.com*)	1. Mr. Chiranjit Talukdar
2. Ms. Mondita Athporia (*monditaathparia1994@gmail.com*)	2. Mr. Ishanu Sharma Phukan
3. Ms. Priyanka Padhi (*priyankapadhi14@gmail.com*)	3. Ms. Jyotirmoyee Deka
4. Ms. Bidisha Bora	4. Mr. Naruttam Pegu

Former short-term students

1. Mr. Arup Jyoti Borah, VIT University, Vellore
2. Mr. Abdul Aziz, AEC Guwahati
3. Mr. Prasanta Gogoi, NIT Silchar
4. Mr. Hitangshu Das, 4th year B.E., Aarupadai Veedu Institute of Technology, Tamil Nadu
5. Mr. Iniyan S., 4th year B.E., Aarupadai Veedu Institute of Technology, Tamil Nadu
6. Mr. Vaisakh M. D., 4th year B.E., Aarupadai Veedu Institute of Technology, Tamil Nadu
7. Mr. Jyotirmoy Deka, Dept of Chemical Engineering, Assam Engineering College, Guwahati (June-July 2024)
8. Mr. Suhil Ali, Dept of Chemical Engineering, Assam Engineering College, Guwahati (June-July 2024)
9. Mr. Utpol Saikia, Dept of Chemical Engineering, Assam Engineering College, Guwahati (June-July 2024)

ADMINISTRATIVE RESPONSIBILITY AT THE UNIVERSITY

1. Director, Internal Quality Assurance Cell (IQAC), Tezpur University from September 01, 2022 to September 25, 2023.
2. Coordinator, NAAC-SSR Coordination Committee, TU (2020-22)
3. Member, Research Committee, Tezpur University (2020 – 2023)
4. Member, Examination Committee, Tezpur University (2020 – 2023)
5. Member, Centre Advisory Committee, CS Centre for Women Studies, Tezpur University (06.07.2022 -25)
6. Member, SAIC Management Committee (2020 – 2023)
7. Member, Committee for Modified Assured Carrier Promotion Scheme for Non-Teaching Staff (2019-22)
8. Member, University Purchase Committee (2020-21)
9. Head, Department of Energy (2016-19)
10. External Member, DAC, Department of Molecular Biology and Biotechnology, TU (2020-23)
11. Member of the Departmental Academic Integrity Panel, CS Centre for Women Studies (2022-24)
12. Member of the Research Committee, Tezpur University (2016-19)
13. Member of the Academic Council, Tezpur University (2016-19)
14. Editor & Convener of the University Annual Report Preparation Committee [2013-14, 14-15, 15-16, 16-17, 2022-23]
15. Member of the University Central Library Committee (2007-09)
16. Member of the Board of Studies of the Department of Energy, Tezpur University
17. General Secretary of the Tezpur University Alumni Association for two terms
18. Member of the University Annual Report Preparation committee
19. Member of the University Anti-Ragging Monitoring Cell
20. Member of the University Canteen Committee
21. Member of the University Placement Committee
22. Member of the University NSS Committee
23. Assistant Warden of AT Hostel (2003-04)

OTHER ACADEMIC AND EXTENSION ACTIVITIES

- **Life Member of the**, i) Indian Science Congress Association (ISCA)
  ii) Biotech Research Society of India (BRSI)
  iii) International Society for Energy, Environment & Sustainability (ISEES)
- Annual Member of the, i) International Union for Agroforestry (IUAF)
  ii) Indian Pulp and Paper Technical Association (IPPTA)
- **Member of the DST Expert Advisory Committee – Waste Management Technologies**, constituted by the Department of Science & Technology (DST), Ministry of Science & Technology, Govt. of India.
- **Adviser,** M/S Goenvi Technologies Pvt Ltd / Innova Engineering & Fabrication, Actual Hitech Industrial Park, B 1 & 2, Mangatane Village, Kudus, Wada, Maharashtra 421312
- **Mentor** in the Green Charcoal Hackathon, organized by NVVN, a wholly owned subsidiary of National Thermal Power Corporation Ltd (NTPC ltd), in partnership with EESL, (Find more information: https://www.incubateind.com/hack/ntpchackathon#mentors-link)
- **Executive Member of the Management Council** of Biotech Research Society of India (BRSI) (2017-19)
- **Member of the District level Core Committee on Sustainable Development Group,** constituted by the District Administration, Sonitpur
- **Member,** District Level Advisory Committee, FSSAI, constituted by the District Administration, Sonitpur
- **Member of the Board of Studies (BoS)** of the Department of Energy Engineering, Assam Science & Technology University, Guwahati
- **Member of the Working Group** #2: Asia/Europe/Australia/New Zealand, formed by International Biochar Initiative (IBI) for Biochar Characterization Standards Development
- **Expert** for evaluation of applications submitted to the Polish Fulbright Program for the 2021-22 academic cycle (For more information, https://fulbright.edu.pl/recenzenci/)
- Acted as a Mentor for a group of students for CSIR-Summer Research Training Programme 2020.
- **Has been acting as**
  - **Main Handling Editor of the *International Journal of Renewable Energy Development* [SCOPUS Indexed]**(Published by Center of Biomass and Renewable Energy, Diponegoro University, Indonesia) (https://ijred.cbiore.id/index.php/ijred/about/editorialTeam).
  - **Guest Editor (with Dr. Yinglei Han,** Sandia National Laboratories, Livermore, CA 94551, USA and **Dr. Sohrab Haghighi Mood**, Washington State University, Pullman, WA 99164, USA) of a special issue, ***Fuels and Chemicals from Thermal Conversion of Renewable Carbon Sources,*** of Sustainability (ISSN 2071-1050). This special issue belongs to the section "Sustainable Chemical Engineering and Technology" (https://www.mdpi.com/journal/sustainability/special_issues/UEGZLZ2C03).
- **Recognized PhD (Joint) Supervisor** of Mizoram Central University, Mizoram, India
- **PhD thesis examiner** (AcSIR) of CSIR-IICT, Hyderabad, CSIR-NEIST, Jorhat and CSIR-IIP, Dehradun; NIFTEM, Haryana; Gauhati University, NIT Mizoram, University of Jammu, IIT Guwahati. University of Malaya - Malaysia,

- **Extra Mural research project Evaluator** of Government of India Funding Agencies (DSIR, DST-SERB, CSIR-NISTADS)
- **External question paper setter/examiner** of
  - Gauhati University, Guwahati; Central Agricultural University, Tura; Assam Agricultural University, Jorhat; Mizoram University, Aizawl; Integral University, Lucknow
- **Reviewer of Journals**
  - Applied Energy
  - Biocatalysis and Agricultural Biotechnology
  - Bioinorganic Chemistry and Applications
  - Biomass & Bioenergy,
  - Bioresource Technology,
  - Biomass Conversion and Biorefinery
  - Biotechnology for Biofuels,
  - CATENA
  - Ecological Engineering,
  - Energy,
  - Energy Conversion & Management,
  - Engineering,
  - Environmental Progress & Sustainable Energy,
  - Fuel,
  - Fuel Processing Technology,
  - Indian Journal of Weed Science,
  - Industrial & Engineering Chemistry Research,
  - Industrial Crops and Products,
  - International Biodeterioration & Biodegradation
  - International Journal of Renewable Energy Development
  - Journal of Analytical and Applied Pyrolysis
  - Journal of Energy,
  - Journal of the Indian Chemical Society
  - Journal of the Energy Institute,
  - Journal of Environmental Chemical Engineering,
  - Journal of Environmental Management,
  - Journal of Environmental Sciences,
  - Journal of Forestry,
  - Journal of Power Engineering,
  - Journal of Thermal Analysis and Calorimetry,
  - Natural Products Research,
  - Renewable Energy,
  - Renewables: Wind, Water, and Solar,
  - Waste & Biomass Valorization,
  - Waste Management
- **Acted as Expert for syllabus preparation** of Nowgong College (Gauhati University, Guwahati)
- **Guest Faculty** of Nowgong College & Nowgong Girls' College (Gauhati University, Guwahati)
- **Delivered popular talk/lecture**
  - As a Chief Guest at Trimurthi Bhawan, Dhekiajuli, Sonitpur on the occasion of Freshers Social Function organized by the All Assam Tea Student Association on 13 December, 2020.
  - As a Chief Guest at Thelamara High and Higher Secondary School, Sonitpur on the occasion of Science and Technology Day Celebration programme on 11 May, 2018.
  - at Dawson H.S. School, Nagaon as part of their Centenary celebration on 21 January, 2017.

- at Missamari Cantonment of Indian Army as part of their “Van Mohotshov” celebration on 04 July, 2015.
- at the Training programme on Agromet Advisory Services on village level climate manager, at KVK-Sonitpur (AAU), 19 Sept., 2014.
- at Farmers Fare at KVK-Sonitpur (AAU), 10 Sept., 2013
- at KV No. 2 (Air Force Station, Tezpur) Tezpur and delivered a lecture, Popularization of science on 26 September, 2011.
- in the World Environment Day celebration at the Assam Valley School, Balipara on 5 June, 2010
- as appointed speaker in the Rajiv Gandhi Akshoy Urja Divas celebration function organized by the District Administration at Tezpur on 20 August, 2008

❖ **Member of Vidyalaya Management Committee** (VMC) of the Kendriya Vidyalaya, Central University, Tezpur from 2018 to 2022.

❖ **Acted as one of the Judges/Adjucators in the**

- The 17th East India Debates 2022 at The Assam Valley School, Balipara on September 11th, 2022.
- School level Science Exhibition at Kendriya Vidyalaya Central University Tezpur on 12 October, 2012.
- Regional level Science Exhibition organized by Kendriya Vidyalaya Sangathan at Kendriya Vidyalaya No. 2 AFS Tezpur on 26 September, 2011.

❖ **Delivered radio (AIR) talks/acted as expert**

- on June 10, 2024 (telecasted during the AIR Tezpur programme “Vigyan Sora”).
- on August 29, 2017 (telecasted during the AIR Tezpur programme “Vigyan Sora”).
- on September 3, 2014 (telecasted during the programme “Vigyan Sora” on 9 September, 2014)
- on September 5, 2014 (telecasted during the programme “Vigyan Sora” on 11 September, 2014)
- acted as an Expert in a Radio Interview programme at AIR, Tezpur (telecasted on 14 February, 2013)
- acted as an Expert in a Television Interview programme telecasted on National Energy Conservation Day (recorded on 22 Nov, 2008) during the Krishi Darshan programme of DD National

Date: August 06, 2025

(Rupam Kataki)