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# LIST OF PUBLICATIONS/CONFERENCES

**List of journal articles published:**

1. **Basumatary, B.,** & Mahanta, C. L. (2023). Isolation of cellulose and synthesis of nanocellulose from banana (Musa acuminata) rachis fibre and their utilization and characterization as bioactive aerogels. *Biomass Conversion and Biorefinery*, 1-18. https://doi.org/10.1007/s13399-023-04260-3
2. **Basumatary, B**., & Mahanta, C. L. (2025). Banana rachis nanocellulose: A natural stabilizer for Pickering nanoemulsion and its potential as a carrier of beta-carotene in food system. *Journal of the Science of Food and Agriculture.* https://doi.org/10.1002/jsfa.14135

**List of journal articles communicated:**

1. **Basumatary, B.,** & Mahanta, C. L. (2025). Design and Development of Nanocellulose/Protein-Based Double Network Hydrogels with Enhanced Gelling Properties. *Biomass Conversion and Biorefinery*.

**Papers in conference proceedings**

1. **Basumatary, B.,** & Mahanta, C. L. Aerogels characterization as bioactive delivery vehicle produced through the valorization of banana rachis (*Musa acuminata*) (Poster presentation). North-East Research Conclave (NERC) (*Towards* – Sustainable Science & Technology) organized by Indian Institute of Technology (IIT) Guwahati, Assam, India during 20$^{th}$ – 22$^{nd}$ May, 2022.
2. **Basumatary, B.,** & Mahanta, C. L. Processes optimization of nanocellulose using response surface methodology and its characterization as food grade aerogels (Poster presentation). International conference on Innovative Food System Transformations for Sustainable Development in Agro-Food and Nutrition Sector organized by Department of Food Technology, VFSTR (Deemed to be University) Vadlamudi, Guntur, Andhra Pradesh, India during 16$^{th}$ – 17$^{th}$ Nov, 2022.
3. **Basumatary, B.,** & Mahanta, C. L. Response surface methodology for the

optimization of synthesis of nanocellulose from banana rachis and its characterization (Oral presentation) under technical session, under the theme Science & Technology. Bodoland International Knowledge Festival organized by Bodoland Territorial Region (BTR) Government & Bodoland University, Kokrajhar, India during 27th Feb to 2nd Mar, 2023.

4. **Basumatary, B.,** & Mahanta, C. L. Characterization of aerogels obtained from pineapple peel waste and its role as a carrier matrix of bioactive compounds (Oral presentation). National conference on underutilized food resources: Nutrient composition, value addition and quality assurance organized by Department of Food Technology, Mizoram University, Mizoram, India on 25th – 26th May, 2023 (**First position under the theme Plant and animal by-products utilization for 'Zero-waste' value addition**).
5. **Basumatary, B.,** & Mahanta, C. L. Development of β-carotene enriched mayonnaise stabilized with banana rachis nanocellulose: a functional food approach (Oral presentation). National conference on ET-SAFe-2025 organized by Department of Food Engineering & Technology in association with AFSTI Tezpur Chapter on 13th-15th Feb 2025, Tezpur University, Tezpur, India.

**List of journal articles under preparations**

1. Incorporation of double network hydrogel for enhanced stability and bioavailability of bioactive ingredients in ice cream. (1st draft submitted)
2. Double network hydrogel with whey protein isolate and nanocellulose using cold induction method. (writing)

**Participation in national and international conference:**

1. Presented a poster in the International Conference on "Sustainable Approaches in Food Engineering and Technology (SAFETy-2022)" organized by Department of Food Engineering and Technology, Tezpur University, Assam, India and Department of Soils, Water and Agriculture Engineering, Sultan Qaboos University, Oman in Association with AFST(I) Tezpur Chapter during 19th – 20th Oct, 2022.
2. Participated in Poster Making Competition in 27th Indian Convention of Food Scientists and Technologists on "Raising Agro-Processing and Integrating Novel Technologies for Boosting Organic Wellness (RAINBOW)" organized by AFST(I)-

HQ and Tezpur Chapter at Tezpur University, Assam, India during 30$^{th}$ Jan – 1$^{st}$ Feb, 2020 (**Awarded - Best Poster**).

3. Participated as Poster Presenter in International conference on Technological Innovations for Integration of Food and Health: A Focus on North-Eastern India (TiiFH) organized by Department of Food Engineering and Technology in Association with AFSTI at Tezpur University, Tezpur, Assam, India during 14$^{th}$ – 16$^{th}$ Feb, 2019 (**Awarded - Second Prize**).
4. Participated as Poster Presenter in the National Symposium on "Probiotics and Functional Foods on Health Management" (PFFHeM) organized by Department of Food Engineering and Technology at Tezpur University, Tezpur, Assam, India during 4$^{th}$ – 5$^{th}$ Mar, 2019.