

List of Publications

List of journal publications

1. Kumari, T., & Deka, S. C. (2021). Potential health benefits of garden pea seeds and pods: A review. *Legume Science*, 3(2), e82. <https://doi.org/10.1002/leg3.82>
2. Kumari, T., Das, A. B., & Deka, S. C. (2022). Impact of extraction methods on functional properties and extraction kinetic of insoluble dietary fiber from green pea peels: A comparative analysis. *Journal of Food Processing and Preservation*, 46(4), e16476. <https://doi.org/10.1111/jfpp.16476>
3. Kumari, T., Das, A. B., & Deka, S. C. (2022). Effect of extrusion and enzyme modification on functional and structural properties of pea peel (*Pisum sativum* L.) insoluble dietary fibre and its effect on yogurt rheology. *International Journal of Food Science & Technology*, 57(10), 6668-6677. <https://doi.org/10.1111/ijfs.16012>

List of journal papers to be communicated

1. Effect enzymatic-modified pea peel dietary fiber on syneresis, texture, rheology and microstructural properties of Lactose free yogurt. (Communicated)
2. Prebiotic activity of enzymatically modified pea peel dietary fiber: an *in vitro* study. (Communicated)
3. A review on modification of dietary fiber; physical, chemical, biological, combined methods and its application in food system – A comparative study. (Communicated)
4. Prebiotic, probiotics, its relationship with food system and clinical evidences in health benefits: A review. (Communicated)

Other publications as book chapter

1. Das, A. B., Kumari, T., & Sahu, P. P. (2022). Calorimetric Biosensors: Core Principles, Techniques, Fabrication and Application. In *Biosensors in Food Safety and Quality* (pp. 11-21). CRC Press.
2. Kumari T, Das, A. J., Deka, S. C. (2022). Fermentation of Cereals: Effect on Nutritive, Functional and Biological Properties. *Cereal Processing*

Technologies: Impact on Nutritional, Functional, and Biological Properties.
CRC Press, Taylor and Francis Group.

List of presentation in conferences

1. National conference on „Millet for Food and Nutritional Security (MFNS)“, **First position** in oral presentation held on 14th-15th Nov, 2022 organised by Department of Food Processing Technology, Ghani Khan Choudhury Institute of Engineering and Technology, Malda, West Bengal. Title: Extraction of dietary fiber from millet bran fermented by *Bacillus natto*: Improved physicochemical and functional properties.
2. International conference on Sustainable Approaches in Food Engineering and Technology (SAFETy-2022), **Third position** in the technical session (oral presentation) on „Waste utilization and management in food processing and food biotechnology and bioprocessing“ category. organized by the Department of Food Engineering and Technology, Tezpur University, Assam, India and Department of Soils, Water and Agricultural Engineering, Sultan Qaboos University, Oman, held on 19-20 October, 2022. Title: Influence of pea peel dietary fiber as a source of prebiotic on the growth kinetics of probiotic strains.
3. International conference on Emerging Technologies in Food Processing –II (ETFP-2022), given Oral presentation under the category - Waste utilization, Topic- “Impact of extraction and evaluation of structural and physicochemical properties of insoluble dietary fiber from green pea peels by applying green technology approach”, held on 25th -26th March, 2022, organized by Department of Food Processing Technology, GKCIET, Malda, West Bengal.
4. International conference on Technological Innovations for Integration of Food and Health: A Focus on North- Eastern India (TiiFH- 2019), By AFSTI, Title: Use of unripen papaya fruit powder as gelling agent in Jam preparation.
5. International conference on Sustainable Approaches in Food Engineering and Technology (SAFETy-2021), **First position** in poster session under category – Waste Utilization and Management in Food Processing on Topic- “A comparative study of extraction and modification of insoluble dietary fiber from pea peel using different technique” held on 24th-25th June, 2021 between Tezpur University and University of Georgia.
6. Attained National Seminar on Trends and Innovation in Food Processing Technology: Prospects and Challenges (TIFPT)-Feb 2017, Effect of encapsulation on viability of *streptococcus thermophilus* and *lactobacillus*

- bulgaricus* in Yogurt at different heating condition, Tezpur University, Tezpur
7. National Symposium on “Probiotics and Functional Foods on Health Management”, PFFHeM2019, Title: Insect Protein- A substitute of food protein. On 4th -5th March, 2019, Tezpur University.
 8. Poster presented at 27th ICFoST organised by AFST (I)-HQ and Tezpur Chapter during 30th Jan, 2020 at Tezpur University, Assam. Titled: Process optimization and shelf life studies of pineapple juice powder (*Ananas comosus*) prepared by spray drying.

Annexure

Approximate preparation cost of this dietary fiber enriched yogurt

Normal yogurt cost around Rs 30 for 100g.

As 2g dietary fiber sample was used in preparation of yogurt.

Processing cost of dietary fiber (2g) extraction = Rs 2.10

Enzymatically modified dietary fiber (2g) cost = Rs 91.78

Extrusion modified dietary fiber (2g) cost = Rs 0

Thus, Preparation of dietary fiber enriched yogurt;

By extrusion modified fiber yogurt (100g) = Rs 30

By enzymatic modified fiber yogurt (100g) = Rs 120 (approx.)

These are the following chemicals used in the preparation of product development.

S.No.	Chemical	Company	Quantity	Price (Rs)
1	NaOH pellet	Hi-media	500g	484
2	HCl 37%	Sigma-Aldrich	500 mL	9201
3	Ethanol	Hi-media	500 mL	19
4	Cellulase	Sigma-Aldrich	5000 unit	5183
5	Xylanase	Sigma-Aldrich	5000 unit	2678