FT SAMACHAR

(News Letter)

1st July 2025–31st December 2025

Guru Nanak Institute of Technology

Department of Food Technology

Departmental Activities @FT, GNIT

Vision of the Dept. of Food Technology

DV: To become a nationally and internationally recognized institution of Food Technology by producing competent food technologists with respect to industry, research and entrepreneurship leading towards sustainable growth of the nation and imparting service to the society.

Mission of the Dept. of Food Technology

To achieve its own vision, the Department of Food Technology is committed to

DM-1: To facilitate high quality teaching to produce graduate of international standard

DM-2: To prepare students to face challenges in their professional life through skill development

DM-3: To promote interdisciplinary work culture to acquire knowledge through research activities and interaction with industries

DM-4: To motivate students towards sustainable development of the nation and society through professionalism, proper education, research and social service.

Departmental Activities @FT, GNIT

Program Educational Objectives (PEOs) of Dept. of Food Technology

PEO 1: Graduates will apply the knowledge of engineering to design product and process by analysing and interpreting experimental data.

PEO 2: Graduates will use modern techniques, skills, and engineering tools necessary in food processing sectors for sustainable development.

PEO 3: Graduates will impart knowledge of professional and ethical responsibilities toward the society.

PEO 4: Graduates will work in multi-disciplinary fields as a teamplayer or a teamleader.

PEO 5: Graduates will pursue higher education, research and other creative and innovative efforts in food technology domain through life-long learning.

Program Specific Outcomes (PSOs) of Dept. of Food Technology

PSO 1: Graduates will be able to comprehend the concepts of Food Technology and to apply them in various areas like food processing, preservation, packaging, analysis, quality control etc.

PSO 2: Graduates will be able to use modern computing technology, analytical skills and engineering tools necessary in food technology and innovation in global and social context.

PSO 3: Graduates will have a successful career and to support devotion for real-world applications using optimal resources as an Entrepreneur in the field of Food Technology.

Departmental Activities @FT, GNIT

Webinars/ Seminars/ Workshop organized by Dept. of Food Technology

- **Industry Mentor/Entrepreneur Meet:** The Department of Food Technology (GNIT), successfully organized an Industry Mentor/Entrepreneur Meet entitled "Seminar on Manufacturing Ready-to-Eat Food Products" on 18th July 2025 at 12:00 PM in the Smart Classroom. The seminar featured two dynamic entrepreneurs Mr. Jaydeep Saha, Founder & CEO, Bisuddha Enterprises Pvt. Ltd. Ms. Tanaya Kundu, Co-Founder, Bisuddha Enterprises Pvt. Ltd.The event aimed to bridge the gap between academia and industry by introducing students to the opportunities, challenges, and innovations within the Ready-to-Eat (RTE) food sector, with a focus on utilizing local and indigenous ingredients for sustainable product development. Highlights of the Seminar was Mr. Saha provided deep insights into the entrepreneurial journey of Bisuddha Enterprises, addressing critical issues like scaling production, market readiness, and quality assurance. Ms. Kundu highlighted the strategic use of local ingredients to create market-differentiated products aligned with sustainable food practices.

- **Industry Alumni Interaction:** Mr. Anindya Dhar, Senior QA Executive, Diamond Beverages (P) Ltd. (Coca-Cola). The program was jointly conducted by the Department of Food Technology in association with the Department of Applied Science and Humanities on 17.10.2025 with the objective of strengthening industry–academia linkage through meaningful alumni engagement. The session featured Mr. Anindya Dhar, Senior QA Executive, Diamond Beverages (P) Ltd. (Coca-Cola), and a proud alumnus of the Department of Food Technology. He Addressing the B.Tech Food Technology (1st Year) students,

- **Academic Mentor Meet:** A Academic Mentor Meet featuring a Seminar on “Principles of Food Safety” on 1ST August 2025 at the Seminar Hall, GNIT, from 3:00 pm onwards. The distinguished resource person, Prof. Shyamal Mandal, Department of Biomedical Engineering, School of Technology, North Eastern Hill University, delivered an insightful and knowledge-rich session for the 2nd and 3rd Year B.Tech students of the Department of Food Technology. His vast academic and research expertise enriched the discussion, making the concepts accessible yet deeply thought-provoking for the participants**.**

- **Industry Visit:** Two-day industrial visit to Vinayak Oil & Fats Pvt. Ltd., located in the bustling industrial hub of Jalan Complex (Industrial Estate), Domjur, West Bengal. This visit Organized by Department of Food Technology (GNIT), on 06.11.2025 and 07.11.2025 for B.Tech 2nd-year. Students

Departmental Activities @FT, GNIT



Industry Mentor/Entrepreneur Meet



Industry Visit



Industry Alumni Interaction



Academic Mentor Meet

Departmental Activities @FT, GNIT

Departmental Session of Parent Teacher Meet

A session of Parent Mentor Meet on 17th October 2025 has been organised by GNIT, FT department for interaction with parents of students.



Parents Teacher Meeting organized by Departmental Food Technology

Departmental Activities @FT, GNIT

Extension/Social Outreach program

Name of the Activity	Date of the Event	A Brief note regarding the Event	Type of Participants	Total No. of Participants involved	Remarks, if any
Extension/Social Outreach program	18/09/2025 & 19/09/2025	Two-Day Workshop on Hands-on Training on Food Safety	Indian Army, Air Force, and Navy Officers	50	--





Images of Extension/Social Outreach programof 2025 passed-out batch

Organized by Dept. of Food Technology, GNIT

Departmental Activities @FT, GNIT

Departmental Publication

Paper publication, research & Course work:

Patent:

1. Dr. Dolanchapa Sikdar, Dr. Shairee Ganguly, Saikat Mazumder, Dr. Kakali Bandyopadhyay, Dr. Souptik Bhattacharya, "NutriShe": A nutrient-rich, iron-fortified pellet for women, 202531059980 A, 04.07.2025
2. Ms.Riya Dasgupta, Dr. Kakali Bandyopadhyay, Jayshree Majumdar Dr. Souptik Bhattacharya, Aihik Dasgupta, Arkopriya Paul, Meghanjan Saha, PEAPODPRO, 202531060006 A, 04.07.2025
3. Dr. Kakali Bandyopadhyay Dr. Shairee Ganguly, Ms. Riya Dasgupta, Saikat Mazumder, Elina Sur, Poulami Deb, NATUREGRAIN VITALSIP, 202531059982 A, 04.07.2025.
4. Jayshree Majumdar, Ms.Riya Dasgupta, Dr. Kakali Bandyopadhyay, Dr. Shairee Ganguly, Dr. Souptik Bhattacharya, FLOWER AND STACH BASED EGGSHELL AND MORINGA FIBER REINFORCED BIODEGRABLE FOOD PACKAGING, 202531061326 A, 11.07.2025
5. Jayshree Majumdar, Dr. Shairee Ganguly, Dr. Dolanchapa Sikdar, Saikat Mazumder, prasenjit saha, Dr. Souptik Bhattacharya MACROPHYTE PROTEIN BASED EGG SUBSTITUTE, filled, 202531129682, 20.12.2025

International Journal:

1. S. Mazumder, D. Bhattacharya, D. Lahiri, M. Nag, Investigation of Antioxidant, Antimicrobial Potential, Soil Nutriology, and Molecular Docking Study of Bioactive Compounds of Eleusine coracana (Finger Millet), Pennisetum glaucum (Pearl millet), and Sorghum bicolor (Sorghum), Biotechnology and Applied Biochemistry (Wiley), Published Online: 19th August 2025, Doi: https://doi.org/10.1002/bab.70038. Indexed in: WOS/Scopus

2. S. Bhattacharya & S. Baidya, Viability Preservation of Probiotic Bacteria Encapsulated in Pectin Reinforced pH-Responsive Composite Alginate Hydrogel Matrix as the Synbiotic Delivery System, Probiotics and Antimicrobial Proteins, Springer Nature, (2025), Doi: https://doi.org/10.1007/s12602- 025-10661-9. Indexed in: WOS/Scopus

3. S. Bhattacharya, S. Das, S. Banik, S. Baidya, S. Banik, A. Pahari, Development, characterization and release kinetics analysis of polysaccharide-reinforced composite stimuli-responsive hydrogel encapsulating bioactive polyphenols to valorize Citrus reticulata peel waste, Chemical Engineering Science, Elsevier, 318, pp. 122191, (2025), Doi: https://doi.org/10.1016/j.ces.2025.122191. Indexed in: WOS/Scopus

4. Shairee Ganguly, Kakali Bandyopadhyay, and Dipa Biswas, "Formulation and characterization of omega-3 fatty acid enriched mayonnaise containing flax seed oil and chia seed oil" International Journal of Food Engineering, 2025. Published online on 7th August, 2025. DOI: https://doi.org/10.1515/ijfe-2024-0040, Impact factor: 1.4, Indexed in: WOS/Scopus

5. Sikdar, D. D., Mondal, A., Ghosh, R., & Jana, S. (2025). Unveiling the Aerial Mysteries of Hygrophila Auriculata: Ethnomedicinal Insights, Phytochemical Profiles, and Pharmacological Potentials. International Journal of Research and Scientific Innovation, XII(VI), 1322–1329. https://doi.org/10.51244/IJRSI.2025.120600109

6. S. Mazumder, D. Bhattacharya, D. Lahiri, M. Nag, Microbial-Mediated Biopolymers (Exopolysaccharide) in Food Packaging: A Current Time Approach in Food Safety, ACS Food Science & Technology, Published Online: 27th October 2025, Doi: https://doi.org/10.1021/acsfoodscitech.5c00639 Indexed in: WOS/Scopus

National Journal:

1. Shaoli Das, Sanjukta Banik, Sanjana Baidya, Sreelekha Banik, Anushree Pahari, Souptik Bhattacharya, Encapsulation Of Bioactive Compounds Of Citrus Sinensis, Citrus Limetta And Emblica Officinalis In Edible Hydrogel: A Health Promotion Approach Through Waste Valorization, Journal of the Association of Engineers India. Vol 94, ISSN: 0368-1106, Doi: 10.22485/jaei/2024/v94/i1 2/50676

2. Soumya Mondal, Arkoprovo Paul, Arka Ghosh, Shairee Ganguly, An Overview of Natural Food Colours: Origin, Chemical Properties, and Applications, Journal of the Association of Engineers India. Vol 94, ISSN: 0368-1106, Doi: 10.22485/jaei/2024/v94/i1-2/50680

3. Arkaprava Bhowmik, Pulastya Dey, Samim Hossain and Jayshree Majumdar Instant Khichdi: A Novel Approach to a Traditional Indian Staple with Enhanced Nutritional Value and Convenience, Journal of the Association of Engineers, India [ISSN 0368-1106] Vol. 94, No. 1-2, 2025, DOI: 10.22485/jaei/2024/v94/i1-2/50674

Book/Book chapter:

1. Saikat Mazumder, Dibyajit Lahiri, Moupriya Nag, Debasmita Bhattacharya (2025). Models of Enzymatic Reactions. In: Lahiri, D., Nag, M., Bhattacharya, D., Ghosh, S. (eds) Introduction to Metabolic Engineering and Application. Biologically-Inspired Systems, vol 19. Springer, Cham. https://doi.org/10.1007/978-3-031-93189-5_5, Indexed in: Scopus

2. Saikat Mazumder, Dibyajit Lahiri, Debasmita Bhattacharya, Moupriya Nag (2025). Introduction to modern technological advancement for supervising human health, In Advancing Science and Innovation in Healthcare Research (pp. 1-38). Academic Press (Elsevier). https://doi.org/10.1016/B978-0-443- 33351-4.00007-6, Indexed in: Scopus

3. Saikat Mazumder, Debasmita Bhattacharya, Hisham Atan Edinur, Dibyajit Lahiri, and Moupriya Nag (2025). Phytochemicals and food safety: natural approaches for microbial control and toxin inactivation, In: Sarkar T, Smaoui S, Lai W.F. (eds) Phytoceuticals in Food for Health and Wellness: Harnessing Plant Therapeutics (pp. 481-499) Academic Press (Elsevier). https://doi.org/10.1016/B978-0-443-26494- 8.00037-9, Indexed in: Scopus

4. Saikat Mazumder, Kakali Bandyopadhyay, Suditi Jana, Tridib Chakraborty, Navin Kumar, Chitrini Das, Arunava Sinha, AI and ML for supply chain optimization: minimizing losses and maximizing efficiency, In Sarkar T, Haldorai A. (eds) Artificial Intelligence in Food Science (pp 715-729), Academic Press (Elsevier). https://doi.org/10.1016/B978-0-443-26468-9.00041-2, Indexed in: Scopus

5. Saikat Mazumder, Navin Kumar, Anjali Lathwal, Kakali Bandyopadhyay (2025). Global Perspectives on EPS Application Showcasing International Case Studies of Successful EPS Application: Analyzing Cultural Influences on the Adoption of EPS in Different Regions. In: Sarkar, T., Lahiri, D., Nag, M. (eds) Extracellular Polysaccharides. Springer, Cham. https://doi.org/10.1007/978-3-031-94472-7_5 Indexed in: Scopus

6. Saikat Mazumder, Debasmita Bhattacharya, Dibyajit Lahiri, and Moupriya Nag (2025). Extraction Techniques: Past, Present, and Future. In: Sarkar, T., Lahiri, D., Nag, M. (eds) Extracellular Polysaccharides. Springer, Cham. https://doi.org/10.1007/978-3-031-94472-7_3, Indexed in: Scopus

7. Saikat Mazumder, Debasmita Bhattacharya, Dibyajit Lahiri, and Moupriya Nag (2025). EPS in Confectionery and Snacks: Investigating the Role of EPS in Confectionery and Snack Production and Examining Texture Enhancement and Shelf-Life Extension. In: Sarkar, T., Lahiri, D., Nag, M. (eds) Extracellular Polysaccharides. Springer, Cham. https://doi.org/10.1007/978-3-031-94472-7_7, Indexed in: Scopus

8. Saikat Mazumder, Debasmita Bhattacharya, Dibyajit Lahiri, and Moupriya Nag (2025). Harnessing the Power of Exopolysaccharides for Improved Gut Health. In: Sarkar, T., Lahiri, D., Nag, M. (eds) Extracellular Polysaccharides. Springer, Cham. https://doi.org/10.1007/978-3-031-94472-7_9, Indexed in: Scopus

9. Saikat Mazumder, Navin Kumar, Sudhriti Maity, Parmjit S. Panesar, and Patricio R. De los Ríos- Escalante (2025), Novel texturizers: creative approaches to enhance mouthfeel and structure. In: Sarkar, T., Smaoui S. (eds) Dietary, Sensory and Gastronomic Application: Exploring Unconventional Food Sources, Volume 2, (pp-175-199), Academic Press (Elsevier). https://doi.org/10.1016/B978-0-443-33345- 3.00011-0, Indexed in: Scopus

10. Tiyasa Gupta, Sagnik Chakraborty, Souptik Bhattacharya, (2025) Application of membrane bioreactor in microplastic and nanoplastic removal from water. In: Membrane Bioreactor Technology: An Innovative Water Treatment Process, Elsevier, November, pp. 277-303, https://doi.org/10.1016/B978-0-443-33661- 4.00001-5, Indexed in: Scopus

Departmental Activities @FT, GNIT

Achievements: (Faculty)

1.

- **Faculty name**: Mr. Saikat Majumder
- **Details of achievement:** Awarded JIS PURASKAR 2026 for Highest Number Publication in Indexed Journal

2.

- **Faculty name**: Dr. Shairee Ganguly
- **Details of achievement**: Awarded JIS PURASKAR 2026 for Highest Number Publication with Students

- **Faculty name**: Dr. Dolanchapa Sikdar
- **Details of achievement**: Awarded JIS PURASKAR 2026 for Highest Number Publication with Students.
- **Faculty name**: Ms. Jayshree Majumdar

Achievements: (Students)

1.

- **Name of Student:** Moubani Dutta, 2nd Year, B.Tech student, Department of Food Technology
- **Details of achievement:** 3rd Position in Placard and Slogan Competition in Bhavisya Entrepreneur 2025 National Symposium on Entrepreneurship and Innovation (Ppt Presentation) and Placard and Slogan Competition.

2.

- **Name of Student:** Mayesha Murmu, 2nd Year, B.Tech student, Department of Food Technology
- **Details of achievement:1st** Position in Placard and Slogan Competition in Bhavisya Entrepreneur 2025 National Symposium on Entrepreneurship and Innovation (Ppt Presentation) and Placard and Slogan Competition.

3.

- **Student name:** Moupia Basu, 2nd year B.Tech students in Food Technology
- **Details of achievement:** 3rd Position in Placard and Slogan Competition in Bhavisya Entrepreneur 2025 National Symposium on Entrepreneurship and Innovation (Ppt Presentation) and Placard and Slogan Competition.

4.

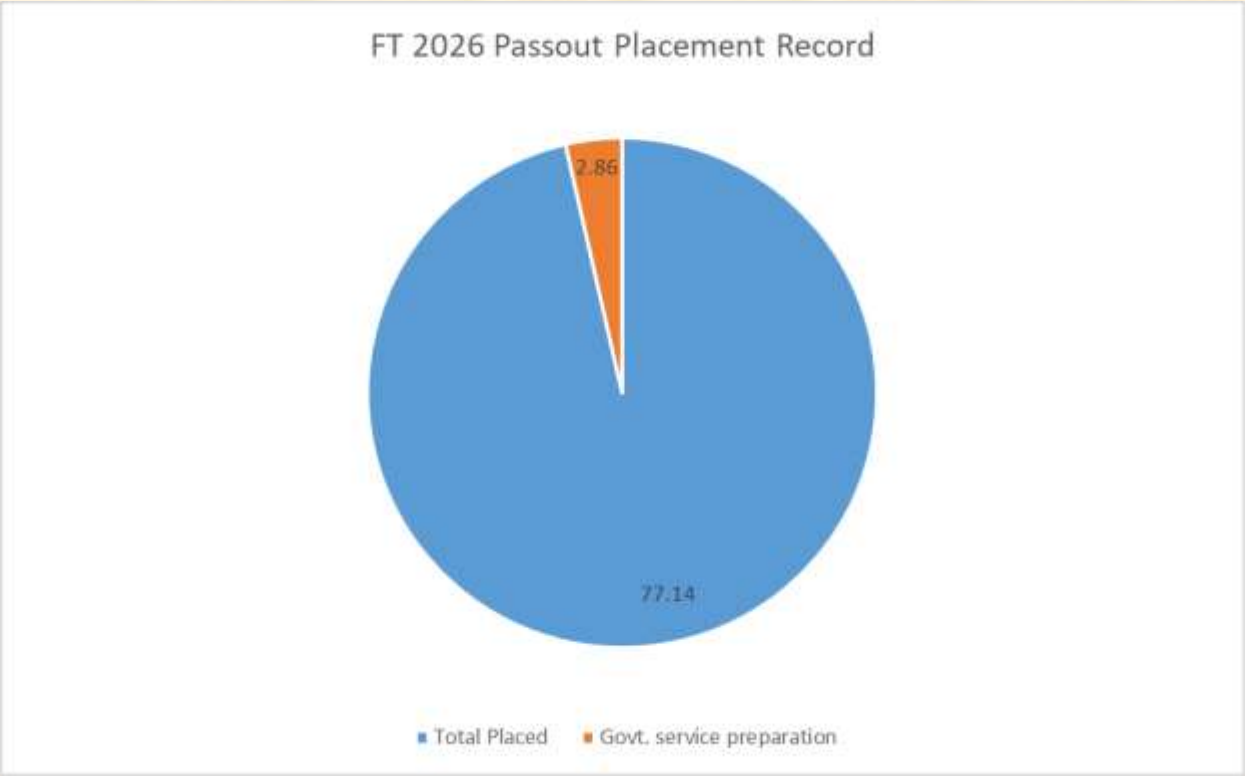
- **Student name:** Deblina Sen, Mtech. FT

Details of achievement: Achieved 1st position in Solo Singing JIS Spirit

Departmental Activities @FT, GNIT

Departmental Placement Status

Placement Records: 2026 passed out Batch



And the journey is going on