

FOOD EXPRESSO

Volume 1, Issue 1

(JANUARY - DECEMBER 2024)











SCHOOL OF BIOENGINEERING
DEPARTMENT OF FOOD PROCESS ENGINEERING,
SRM INSTITUTE OF SCIENCE AND TECHNOLOGY
KATTANKULATHUR, CHENGALPATTU - 603203

TAMIL NADU.





with 128 Status











Ranked 5-7 in Indian Universities

TABLE OF CONTENTS

- Messages from the Desk
 - > HOD's Note
 - > Editorial Message
- **♦** About the Department
- **Editorial Team**
- **♣** International Advisory Board Member Visit
- **Student Achievements**
 - > Placement Details and Higher Studies
- Faculty Corner
 - > Papers Published
 - > Book Chapters Published
 - > Projects Granted
 - > Patents Published/Granted
 - > Awards and Recognitions
 - > Technical Events Organized
 - > Events Attended by Faculty
- Student Activities
 - > Industrial Visits
 - > Alumni Connect
 - > Student Expo
 - Outreach Events
- Scholarly Contributions
 - National and International Conferences Attended and Published
 - ➤ Conferences and Training Attended by Research Scholars
 - > Number of PhDs Awarded
- Other Highlights

HOD's Desk



DR. S. PERIYAR SELVAM

It's an honour and pleasure that we are releasing the first issue, volume I, of the newsletter "FOOD EXPRESSO" with highlights on the accomplishments and activities of the Department of Food Process Engineering from January 2024 to December 2024. Currently, our department offers two PG programs, M.Tech Food and Nutritional Biotechnology and M.Tech Food Safety and Quality Management, and is also associated with the Department of Biotechnology for offering B.Tech Biotechnology (Food Technology).

This newsletter aims to highlight our department's activities, such as research contributions, programs organized, our students' recent placement records, and faculty achievements. I believe that this initiative will help to form interdisciplinary associations with other departments and also be a valuable tool for reflecting on our progress and planning for future progress.

We would also like to take this opportunity to thank our Vice Chancellor, Dr. C. Muthamizhchelvan; Registrar, Dr. S. Ponnusamy; Dean, CET, Dr. T. V. Gopal; and former Chairperson/Dean, SBE, Dr. M. Vairamani, for providing a conducive environment to synergize our strengths towards fulfilling the objectives of the department and the institute.

I would express my gratitude to the entire newsletter "FOOD EXPRESSO" team and members of the department for their dedication and contribution.

EDITORIAL MESSAGE



DR. L. ANTONY CATHERINE FLORA

Dear Readers

Greetings to all.

Success is best when it's shared – Howard Schultz

The Beginning of a new year brings in feelings of joy and hope for everyone. We are happy to release our first edition of the newsletter of the Department of Food Process Engineering, 'FOOD EXPRESSO'. The first edition comprises the efforts and accolades of the staff and students of the Department of Food Process Engineering during the last year (Jan 2024 - Dec 2024). We have highlighted the exciting events organized and attended in the past year by the faculties and students of our department. The Department of Food Process Engineering has been working tirelessly to set a milestone in academic and research to ignite the young students minds and faculties in an innovative path for the betterment of the community. The SRMIST management is constantly encouraging and supporting our path toward success. We hope this newsletter serves as a way for everyone in our college community to stay connected and informed.

On this moment I would like to thank the editorial team for their immense support in designing and framing the first edition of the department newsletter.

Enjoy reading our newsletter

Stay tuned for more information

> ABOUT THE DEPARTMENT

The department was established in the year 2003, offering M. Tech Food and Nutritional Biotechnology, M. Tech Food Safety and Quality Management, and Ph.D. in Food Process Engineering. The department has well-furnished laboratories like Food Microbiology, Food Biochemistry, Food Analysis, Food Engineering, Food Toxicology, and Product Development Laboratories and a DST FIST- supported laboratory. The department is led by experienced faculty members and has developed many food processing techniques, gadgets/equipment, and new value-added food products. As food processing is an interdisciplinary subject in nature, the department shares the staff of chemical engineering, biotechnology, and mechanical engineering. The department conducts international/National level conferences, seminars, and workshops in every academic year. The Department of Science and Technology (DST), Government of India, and National Research Foundation (NRF), South Africa (Bilateral), has awarded a research project with a budget of 60 lakhs. Department faculty members have frequently received various industrial consultancy projects and also received funding from the Department of Biotechnology (DBT), Government of India. The department produced entrepreneurs like Abhishek Abraham, President of Aachi Masala Company. Students have obtained prestigious placements in Aachi Masala, Britannia, Coca-Cola, Parikshan, Hatsun Agro, ITC Foods, Unavar Food Inspection and Certification, Manna Foods, Mega Foods, Cavinkare, Parle Agro, Pepsi, Perfetti, etc. In addition to this, our students also excel in various competitive examinations like FSSAI, GATE, IELTS, and TOEFL, which has helped them to pursue their designations in work and higher studies.



> VISION

To educate and train the students about the advanced and emerging techniques in the area of food process engineering so as to serve as technologists, managers, food safety officers, auditors and entrepreneurs of the food industries and to emerge as a center of excellence in training, research, outreach, and consultancy services in the food industrial sector with a focus on value addition of agricultural produce, food bioprocessing and technology, nutraceuticals, phytomedicine, food nutrition, food quality, and safety.



> MISSION

- To produce trained technical manpower of the highest standard in the field of the food safety and quality, Food and Nutritional Biotechnology sector.
- To reorient and develop safe food products by applying fundamental and applied technologies.
- To provide solutions to the problems and leadership in the areas of education, training, and research.
- To provide an Industry consultancy program for start-up food industries, micro, medium, and small-scale industries

EDITIORIAL TEAM



Dr. S. Periyar Selvam Head of the department



Dr. L. Antony Catherine Flora
Assistant Professor, Faculty Coordinator

FACULTY TEAM



Dr. Gurumoorthi P Associate Professor



Dr. Nagamaniammai G Associate Professor



Dr. Preetha R Associate Professor



Dr. SarathChandra G Adjunct Faculty

STUDENT EDITORS



Sanjei Kumar R Food and Nutritional Biotechnology - 2nd Year



Yuvaganesh V A Food Safety and Quality Management - 2nd Year



Samuel Alan Richard Food Safety and Quality Management - 1st Year



JeevaKanth V Food Safety and Quality Management - 1st Year



Sheik Omar Musthaq A R
Food and Nutritional Biotechnology
- 1st Year



Thilagavathy R
Ph.D in Food Process
Engineering - 1st Year



Vignesh L Food and Nutritional Biotechnology - 2nd Year

INTERNATIONAL ADVISORY BOARD MEMBER PROF. R. P. KINGSLY AMBROSE VISIT

- The International Advisory Board member Prof. R. P. Kingsly Ambrose visited The School of Bioengineering and The Department of Food Process Engineering on 08.03.2024 to 13.03.2024.
- Dr. Kingsly discussed and provided the suggestion in revising the curriculum of M.Tech Food Safety and Quality Management, M.Tech Food and Nutritional Biotechnology and B.Tech Biotechnology with specialization in Food Technology program.
- Dr. Kingsly interacted with the PG students and PhD research scholars regarding the research opportunities in abroad.
- Dr. Kingsly also visited SRM College of Agricultural Sciences, Baburayanpettai campus and interacted with their faculty members.



Prof. R. P. Kingsly Ambrose



Department of Food Process Engineering
School of Bioengineering
College of Engineering and Technology
SRM Institute of Science and Technology
Kattankulathur, India.



Department of Agricultural and
Biological Engineering
Purdue University
West Lafayette
Indiana, USA.

PLACEMENT DETAILS - HIGHER STUDIES - INTERNSHIPS

S. No	Name	Department (M.Tech - Specialization)	Batch	Company	Designation	Photo
1	Anju S	Food and Nutritional Biotechnology	2022- 2024	Senior Executive – Quality Assurance	Dindugal Thalapakatti Hotels PVT. LTD.	
2	Annam Madhurya	Food Safety and Quality Management	2022- 2024	Product Development Associate	Thinking forks	
3	Bathmasree S	Food and Nutritional Biotechnology	2023- 2025	Intern Trainee	Unavar Food Inspection and Certification Pvt., Chennai	
4	Divyadharshini S	Food and Nutritional Biotechnology	2022- 2024	Research Scholar	NIT-Rourkela	
5	Jayapriya G	Food and Nutritional Biotechnology	2022- 2024	Senior Engineer	Quality Austria Central Asia	
6	Kaarthik R S	Food and Nutritional Biotechnology	2022- 2024	Quality Master Data Management	International Flavours & Fragrances India Pvt. Ltd.	

FOOD EXPRESSO

VOL 1 ISSUE 1 FPE

S.	Name	Department	Batch	Company	Designation	Photo
No	Trume	(M.Tech - Specialization)	Duten	Company	Designation	Tiloto
7	Karthikeyan J	Food Safety and Quality Management	2022-2024	Senior Engineer	Quality Austria Central Asia	
8	Kaavya Ezhil Kumaran	Food and Nutritional Biotechnology	2022- 2024	Teaching Associate	SRM Institute of Science and Technology	
9	Kerenbharath S M	Food Safety and Quality Management	2023- 2025	Intern Trainee	Hatsun Agro Product LTD	
10	Nancy Vinoliya R	Food and Nutritional Biotechnology	2022- 2024	Senior Executive – Quality Assurance	Dindugal Thalapakatti Hotels PVT. LTD.	
11	Nishaant B. N.	Food and Nutritional Biotechnology	2022- 2024	Research Scholar	Department of Food Process Engineering, SRMIST	
12	Nithya Shree A	Food and Nutritional Biotechnology	2023- 2025	Intern Trainee	Unavar Food Inspection and Certification Pvt., Chennai	

VOL 1 ISSUE 1 FPE

S.	Name	Department	Batch	Company	Designation	Photo
No		(M.Tech - Specialization)	100			
13	Raja Rajeswari	Food Safety and	2023-	Intern	Hatsun Agro	
	P	Quality Management	2025	Trainee	Product LTD	
14	Ruth Janice Jennifer MJ	Food Safety and Quality Management	2022- 2024	Intern Trainee	Unavar Food Inspection and Certification Pvt., Chennai	vi ng
15	Shruthi T	Food Safety and Quality Management	2022- 2024	Food Technology Trainee	Hatsun Agro Product LTD	
16	Sivakumaran I	Food Safety and Quality Management	2022- 2024	Lab Executive	Sree Gupta Bhavan Private Limited.	
17	Shilpa Haridas	Food and Nutritional Biotechnology	2022- 2024	Assistant Quality Controller	Parayil Food Product PVT LTD	
18	Saran S	Food and Nutritional Biotechnology	2023- 2025	Intern Trainee	Hatsun Agro Product LTD	

FOOD EXPRESSO

VOL 1 ISSUE 1 FPE

S.	Name	Department (M. Tach	Batch	Company	Designation	Photo
No		(M.Tech - Specialization)				
19	Vishnuvardhini N	Food Safety and Quality Management	2022- 2024	Business development executive	Food Buddies	
20	S. Vishwa	Food Safety and Quality Management	2022- 2024	Technical Officer	Milky Mist Dairy food Private Limited Perundurai (TK), Erode	
21	Varshith. V	Food and Nutritional Biotechnology	2022- 2024	Intern trainee	National Sun Yet-Sen University, Taiwan	



FACULTY CORNER

PAPERS PUBLISHED

- 1. Subramaniyan, V., **Periyar Selvam, S**., Jarugala, J., & Sadiku, E. R. (2024). Effect of PVA-based films incorporated with postbiotics, flax seed mucilage, and guar gum to enhance the postharvest quality of fig fruits. *Food Chemistry*, 465, 142018. **[Q1, IF: 8.5]**
- 2. Jangam Seshagiri, D., **Periyar Selvam**, **S**., & Sadiku, E. R. (2024). Antifungal efficacy of neroli and palmarosa essential oils against major white button mushroom postharvest pathogens. *International Journal of Food Science and Technology*, *59*(12), 9602–9614. **[Q1, IF: 2.6]**
- 3. Jangam Seshagiri, D., Rajendra, A. B., **Periyar Selvam, S.**, & Sadiku, E. R. (2024). Development of eco-friendly PVA blended aloe vera rind CNC films and fumigation of essential oils: a novel approach to prolonging the shelf-life of white button mushroom (*Agaricus bisporus*). *International Journal of Food Science and Technology*, 59(12), 9602–9614. **[Q1, IF: 2.6]**
- 4. Dutta, H., Bora, D., Chetia, P., Bharadwaj, C., Purbey, R., Bohra, R. C., Dutta, K., Rajulu, A. V., Sadiku, E. R., **Periyar Selvam, S.**, Gurusamy, P., Rawal, R. K., & Jayaramudu, J. (2024). Biopolymer composites with waste chicken feather fillers: A review. *Renewable and Sustainable Energy Reviews*, 197, 114394. [Q1, IF: 16.3]
- 5. Subramaniyan, V., Periyar Selvam, S., & Sadiku, E. R. (2024). Evaluation of the antifungal activity of cell-free supernatant of *Lactobacillus* species against the fig (*Ficus carica* L.) postharvest fungal pathogens through in-vitro and in-silico analysis. *Scientia Horticulturae*, 331, 113182. [Q1, IF: 3.9]
- 6. Baskar, R., Subramaniyan, V., Nambiar, R., Perumal, A. B., Anitha, P. M., Muhamad, I. I. I., & **Periyar Selvam, S**. (2024). Effects of probiotics, paraprobiotics, and postbiotics against foodborne pathogens: A review. *Indian Journal of Pharmaceutical Sciences, 86(1), 9*—18. [NA, IF: 0.5]
- 7. Subramaniyan, V., **Periyar Selvam, S**., Sadiku, E. R., & Jayaramudu, J. (2024). Effect of flax seed mucilage and guar gum coating enriched with postbiotics on postharvest storage of fig fruits (*Ficus carica* L.). *South African Journal of Botany*, *166*, 636–647. **[Q2, IF: 2.7]**
- 8. Dharini, V., Biswal, A., **Periyar Selvam, S.**, Jayaramudu, J., & Sadiku, E. R. (2024). PVA/essential oil-based active food packaging films functionalized with halloysite nanotubes and cellulose nanocrystals as filler materials for the shelf-life extension of papaya fruits. *International Journal of Food Science and Technology*, 59, 318–332. **[Q1, IF: 2.6]**

- 9. Sundaresan, U., **Gurumoorthi, P.**, & Manivannan, K. (2024). L-dopa elicitation through calcium ion mediated channel in callus cultures of Mucuna pruriens. *International Journal of Pharmacy and Pharmaceutical Sciences*, 16(09), 35–39. **[NA, IF: N/A]**
- 10. Jayapriya, G., Abishek, S., & **Gurumoorthi, P**. (2024). Food safety and surveillance studies on the quality of traditional cold-pressed edible vegetable oils. *International Journal of Chemical and Biochemical Sciences*, 25(19), 1099–1108. **[Q4, IF: 0.24]**
- 11. Sruthi, T., Bhavadharani, P. V., & **Gurumoorthi, P**. (2024). Unveiling the purity: The physico-chemical and fatty acid profiling of unbranded ghee for quality assurance. *International Journal of Chemical and Biochemical Sciences*, 25(19), 893–901. [NA, IF: N/A]
- 12. Bhokarikar, S., **Gurumoorthi, P.**, Athmaselvi, K. A., & Pushpadhas, H. A. (2024). Optimization of process variables for the preparation of oat milk using the Box–Behnken response surface model and studying the effect of enzyme hydrolysis on structural and thermal properties of oat starch. *Journal of Applied Biology and Biotechnology*, 12(6), 261–272. **[Q3, IF: N/A]**
- 13. Abishek, S., & **Gurumoorthi**, **P**. (2024). Enhanced stability and functionality of freezedried encapsulated black cardamom (Amomum subulatum) oleoresin: A comprehensive physicochemical and thermal analysis. *Food Biophysics*, 1–19. **[Q2, IF: 2.8]**
- 14. Sharon, P. A., & **Gurumoorthi, P.** (2024). Optimization of spray drying process parameters for the production of cranberry flavoured oat milk powder using Response Surface Methodology. *Food Science and Technology*, 12(1), 48–61. **[Q2, IF: 3.1]**
- 15. Navin Venketeish, K. S., **Nagamaniammai, G.**, & Pandiselvam, R. (2025). Influence of processing techniques on the proximate composition, anti-nutritional factors, and amino acid profile of red kidney beans (*Phaseolus vulgaris L.*). *Plant Foods for Human Nutrition*, 80(1), 1-6. [Q2, IF: 3.1]
- 16. Nishaant. B. N., Nagamaniammai, G., & Pandiselvam, R. (2024). Engineering plant-based chicken substitutes: Application of fava bean (Vicia faba) and wheat gluten blend (*Triticum aestivum*) via novel layering technique. *Food Chemistry*. 466, 142221. [Q1, IF: 8.5]
- 17. Navin Venketeish, K. S., Nagamaniammai, G., Pandiselvam, R., & Khenegah, A. M. (2024). Unlocking the potential of underutilized legumes: Nutritional benefits, antinutritional challenges, and mitigation strategies. *Journal of Food Measurement and Characterization*, 1-15. [Q2, IF: 2.9]
- 18. Safreena K., Jeroline Mary, J., **Nagamaniammai**, G., Essa, M. M., & Qoronfleh, M. W. (2024). Traditional weaning foods and processing methods with fortification for sustainable development of infants to combat zero hunger: *A review. Journal of Food Science and Technology*, 1-12. [Q2, IF: 2.7]
- 19. Divyadharshini, S., Nagamaniammai, G., & Pandiselvam, R. (2024). Effect of partial replacement of whole milk khoa with groundnut and sunflower seed milk on

- biochemical and functional properties. *Journal of Food Science and Technology*, 1-10. **[Q2**, **IF: 2.7]**
- 20. Paramadhas, S., Selvi, P., Shridar, B., Palanisamy, P., Baburaj, N. S., Nagamaniammai, G., & Pandiselvam, R. (2024). Optimization and extraction of annatto pigments obtained from Bixa orellana L. using supercritical fluid extraction. *Macrochemical Journal*, 206, 111494. [Q2, IF: 4.9]
- 21. Vishwa, S., Nagamaniammai, G., Senthilkumar, N. V. K., & Kabeer, S. (2024). Effect of drying methods on the biochemical and functional qualities of ready-to-mix traditional pearl millet porridge (Pennisetum glaucum). *International Journal of Nutrition, Pharmacology, and Neurological Diseases*, 14(3), 337–342. [Q4, IF: 0.41]
- 22. Shruthy, R & Preetha R (2024) PVA- Nano Cellulose Active Packaging Film with Clay Nano Particles and Fennel Seed Essential oil for Enhanced Thermal, Barrier, Antimicrobial, Antioxidant and Biodegradation property to improve shelf life of Tofu. RAC Sustainable Food Technology. [NA, IF: N/A]
- 23. Chandrasekar, H., **Preetha R.**, Menon, K.H., Silla, A., Raghavender, S.P (2024) Detection of melamine in infant milk powder by micro-Raman spectroscopy using biosynthesized zinc oxide nanoparticles. *Journal of Food Science and Technology*. **[Q1, IF: 2.6]**
- 24. Mukkadan, M. J., **Preetha**, **R**., & Sreejit, V. (2024). Development of active packaging film reinforced with nano cellulose extracted from Palmyra palm (*Borassus flabellifer*) residues for prolonging the shelf life of chicken meat. *International Journal of Food Science and Technology*, 59(3), 2033-2041. [Q1, IF: 2.6]
- 25. Ramesh, S., & Preetha, R. (2024). Preparations of nano cellulose particles from agricultural wastes for eco-friendly biodegradable take-away bowls for food. ACS Agricultural Science and Technology, 4(11), 1216-1229. [Q3, IF:2.4]
- 26. Subindhira, R., **Preetha, R.**, & Sreejit, V. (2024). Electrospun probiotic (*Lactobacillus pentosus*) with prebiotic for better performance in the food system and during gastrointestinal conditions. *Journal of Food Science and Technology*, 1-12. **[Q2, IF: 2.6]**
- 27. Supriya, M., Preetha, R., Mubeena, S. A., & Rao, S. (2024). Formulation of catechin hydrate nanoemulsion for fortification of yogurt. *Journal of Food Science and Technology*, 1-9. [Q2, IF: 2.6]

BOOK CHAPTERS PUBLISHED

- Bhokarikar, S., Poojitha, P., Vaishampayan, V., Sridhar, A., **Gurumoorthi, P.,** & Kapoor, A. (2024). *Parameters affecting the efficiency of extraction systems in the food industries*. In *Extraction Processes in the Food Industry* (pp. 397-434). Woodhead Publishing.
- ► Nagamaniammai Govindarajan, Safreena Kabeer, and Navin Venketeish (2024). *Impact of Different Processing Techniques on the Retention of Zinc in Foods*. In *Zinc: Early Development, Applications and Recent Trends* (pp. 223-241). CRC Press, Taylor & Francis Group LLP.

- Shruthy Ramesh and **Preetha**, **R.** (2024). *Novel Food Packaging Technologies: Applications and Prospects*. Apple Academic Press. ISBN: 9781003395. DOI: 10.1201/9781003395249-3.
- Pooja Baiju R. and Preetha, R. (2024). Husk and Straw of Cereal Grains for Sustainable Food Packaging. Wiley. ISBN: 9781394174553.
- ► Ciya Teena Tom and **Preetha**, **R.** (2024). Chapter 9: Edible Film and Coating Materials Against Bacteria Decay. In Edible Film and Coatings: Innovative Applications for Packaging and Food Preservation (pp. [specific page numbers if available]). CRC Press. ISBN: 9781032606897.
- Anukshya Subudhi and **Preetha**, **R.** (2024). Chapter 10: *Edible Film and Coating Materials Against Auto Oxidation*. In *Edible Film and Coatings: Innovative Applications for Packaging and Food Preservation* (pp. [specific page numbers if available]). CRC Press. ISBN: 9781032606897.
- Anukshya Subudhi and **Preetha**, **R**. (2024). Chapter 18: *The Circular Economy Concept and Usage Cost of Edible Film and Coating*. In *Edible Film and Coatings: Innovative Applications for Packaging and Food Preservation* (pp. [specific page numbers if available]). CRC Press. ISBN: 9781032606897.

PROJECT GRANTED

Dr. R. Preetha is the Principal investigator of Project titled: Development of the rapid biodegradable test protocol for determining the bio-degradability of bio-degradable plastics. Grant received 13.4 Lakh from the DBT, India (Feb, 2024).

PATENT PUBLISHED/ GRANTED

- ► Patent No: 202041056093, "A Biodegradable Film Composition and a Process for its Preparation". Inventor: Anand Babu Perumal, Reshma B Nambiar, Periyar Selvam Sellamuthu, Rotimi Sadiku Emmanuel and M. Mahesh Kumar.
- A dietary product and a process for its preparation, Application No: 202441092194 filed on 26th November 2024. Inventors: Nagamaniammai Govindarajan and Charishma Rengarajan, Applicant: SRM Institute of Science and Technology, Kattankulathur, Chennai.
- A system for assessment of Fish Quality, Application No: 202441072021 filed on 29th September 2024. Inventors: Nagamaniammai Govindarajan and Vishnuvardhini Narayanan, Applicant: SRM Institute of Science and Technology, Kattankulathur, Chennai.
- ▶ Plant Additives and Processed Milk, Application No: 202441071386 filed on 20th Sep 2024. Inventors: Nagamaniammai Govindarajan and Dhivyadharshini Sivaraj, Applicant: SRM Institute of Science and Technology, Kattankulathur, Chennai.
- ► A process of Preparation of Edible Film No. 202441028731 Published on 08/04/2024 Inventor: **Dr. R. Preetha.**
- ► A system and Method for food aging analysis and shelf-life estimation. Patent Application No. Published on 27/12/2024 Co-Inventor: **Dr. R. Preetha.**

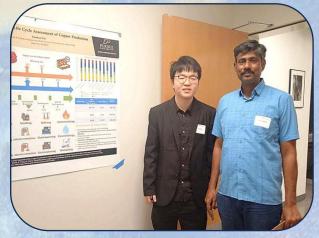
AWARDS AND RECOGNITION OF FACULTIES

• Dr. S. Periyar Selvam visited Department of Agricultural and Biological Engineering, Purdue University, USA through Faculty Abroad Program January 2024 - June 2024.





- Dr. Nagamaniammai Govindarajan, Associate Professor, Department of Food Process Engineering acting as Guest Editor in the Journal of Food Science and Technology for the special issue of International Conference on New Horizons in Bioengineering: Fostering Academia-Industry Partnership held on 14th Feb to 16th Feb 2024.
- Dr. Nagamaniammai Govindarajan, Associate Professor, Department of Food Process Engineering acting as Guest Editor in the Journal of Food Science and Technology for the special issue of International Conference on New Horizons in Bioengineering: Fostering Academia-Industry Partnership held on 14th Feb to 16th Feb 2024.
- Dr. S. Periyar Selvam, Resource Person: Poster presentation evaluator in the 11th Annual Graduate Symposium, organized by Agricultural and Biological Engineering Graduate Student Association (ABE-GSA), Purdue University, USA on 7th March 2024.



- Dr. S. Periyar Selvam, is an Editorial Board Member Discover Toxicology, Springer Nature's Journal.
- Dr. S. Periyar Selvam, is an Early Career Editorial Board Member 2024, Journal of Engineering Microbiology Elsevier.

VOL 1 ISSUE 1 FPE

- Dr. S. Periyar Selvam, is an Editorial Board Member, Scientific Reports, Springer Nature.
- Dr.R.Preetha Delivered a talk on "Recent Trends in Food Processing on April 20, 2024, Saturday, organized by Alumni group, Department of Biotechnology, IIT Madras.
- Dr. G. Nagamaniammai, Associate Professor, Department of Food Process Engineering delivered talk as National Webinar on Food Quality and Safety Monitoring using AI on 28th June 2024, organized by Kongunadu College of Engineering and Technology, Trichy
- Dr. Nagamaniammai Govindarajan, Associate Professor, Department of Food Process Engineering acted as a Guest for the event titled "Culinary Circuits" organized by Department of Computational Intelligence, School of Computing, SRM IST, Kattankulathur on 31st July 2024.

Dr.R.Preetha, Associate Professor Department of Food Process Engineering acted as a
Guest for the event titled "Culinary Circuits" organized by Department of
Computational Intelligence, School of Computing, SRM IST, Kattankulathur on 31st
July 2024.



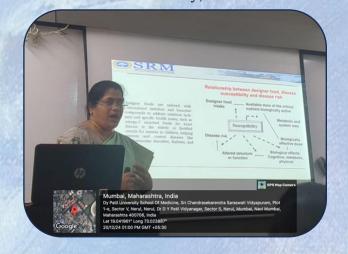
• Dr. Nagamaniammai Govindarajan, Associate Professor, Department of Food Process Engineering delivered as a Guest lecture on the topic 'Behaviourally focused nutrition education, healthy food choices and diet related non-communicable diseases" in the event Poshan Maah organized by Acharapakkam, BDO for first line health care providers on 27th Sep'24.



• Dr. Nagamaniammai Govindarajan, Associate Professor, Department of Food Process Engineering delivered a talk on 'Designer Food Development for Specific group of

- People' on 14th September. Organized by AFSTI, Mumbai Chapter.
- Dr. P. Gurumoorthi successfully completed the NABL Re assessment renewal of accreditation to SRM DBT Platform for Advanced Life Sciences and Technologies between 26th and 27th October, 2024. Mrs. Rini Narayan, Joint director- Lead Assessor, Gurugram, New Delhi and Dr. Ezhil Praveena, NABL Technical Assessor, Principal Scientist, ICAR Brackish water Aquaculture were visited SRM IST for assessment purpose.
- Dr. Nagamaniammai Govindarajan, Associate Professor, Department of Food Process Engineering received The Best Researcher Award from 26th Edition of International Research Excellence and Citation Awards by SciFax Technology and Publication Pvt. Ltd on 9th December 2024.
- Dr. P. Gurumoorthi and Mrs. Aryashree Sukumar received the award for best published research papers entitled "Effect of ultrasonication on emulsion formulation, encapsulation efficiency, and oxidative stability of spray dried chia seed oil" under Food Engineering category on the the 30th Indian Convention of Food Scientists & Technologists (ICFoST) "Food Safety, Standards, Security and Sustainability" 'FoodSSSS' held from 19th December to 21st December 2024, at D.Y Patil University, Mumbai.

• Dr. G. Nagamaniammai, Associate Professor, Dept. Food Process Engineering presented a paper titled 'Designer Foods: A Revolutionary Approach to Nutrition and Global Health Challenges' at ICFoST'24 organized by Association of Food Scientist and Technologist India at D. Y. Patil University, Mumbai on 20th December' 24.



- Dr. R. Preetha received Best Paper award In Food Engineering by Journal of Food Science and Technology, Springer Nature for the year 2023 awarded at ICFoST'24 organized by Association of Food Scientist and Technologist India, CSIR-CFTRI Mysuru at D. Y. Patil University, Mumbai on 20th December' 2024.
- Dr. G. Nagamaniammai, Associate Professor delivered Keynote Lecture in the Faculty Development Programme conducted by Department of Agricultural Engineering, SRM Valliammai Engineering College, Kattankulathur on 24th Dec 2024.
- Dr. R. Preetha corresponding author of Best paper, awarded in National conference on Advances in Science and Technology for regenerative agriculture (ASTRA-2024), Bannari Amman Institute of Technology, Sathyamangalam, Erode Dist. Tamil Nadu.

TECHNICAL EVENTS ORGANISED BY FACULTY

• Dr. S. Periyar Selvam, successfully organized an insightful expert talk on "Recent Trends and Updates in Food Safety and Standards Authority of India" on 28th October 2024. The session was conducted by Mr. Vivekanand Chandrasekaran, Executive Director of Unavar Food Inspection & Certification Pvt. Ltd., who shared his extensive expertise on the subject.



 Dr. S. Periyar Selvam, organized a five-day workshop on "Hands-on Training in Bakery, Confectionary and Millets Products" in collaboration with Desotta School of Baking, Association by Karaikudi Bakery Owners Association from 18th November 2024 to 22nd November 2024.



• Dr. S. Periyar Selvam, organized a one-day Faculty Development Program (FDP) on "Hands-on Training in Bakery and Millets Products" in collaboration with Desotta School of Baking, Association by Karaikudi Bakery Owners Association on 23.11.2024.





• Dr. S. Periyar Selvam and Dr. L. Antony Catherine Flora organized the Internal Audit Training on "ISO 22000: 2018 Programme conducted by Parikshan FSS Pvt Ltd, Chennai from 02.12.2025 to 05.12.2024.



• Dr. G. Nagamaniammai, the Department of Food Process Engineering, School of Bioengineering at SRM Institute of Science and Technology, successfully organized an insightful expert talk on "Unlocking the potential of graduate studies and career opportunities in abroad (US) for the food technology" by Dr. Kaavya Rathnakumar, Senior Scientist, Ice Cream and Frozen Novelties, Balchem Human Nutrition and Health, USA on 6th December, 2024.





• The Department of Food Process Engineering, in collaboration with the Association of Food Scientists & Technologists (India) - Chennai Chapter, organized an engaging event on 7th December 2024 at Ramachandran Hall, School of Bioengineering, SRM IST, Kattankulathur. The occasion featured two prestigious lectures: the Sri Burra Raghuramaiah Memorial Lecture and the Sri GCP Rangarao Memorial Lecture, both honoring two eminent personalities in the field of food technology.

KEYNOTE SPEAKERS AND THEIR INSIGHTS:

Sri Burra Raghuramaiah Memorial Lecture

Mr. Anurag Lodha, Director of Avlaan Pharmaceutical Pvt. Ltd., delivered an inspiring lecture on entrepreneurship, start-up strategies, and global market opportunities in the field of food technology.

Mr. Lodha shared insights on the importance of identifying and leveraging unique selling propositions (USPs) to stand out in the competitive food industry. Additionally, Mr. Lodha emphasized the need for resilience, creativity, and adaptability in the entrepreneurial journey.

Sri GCP Rangarao Memorial Lecture

Mr. Karthick Shanmuga Sundaram, Founder and CEO of Gusteau Food Pvt. Ltd., shared his expertise on "Innovation and Development of Natural Food Colors" in the field of food technology.

Special Guests and Their Addresses:

- Ms. Swarup Rane, Managing Director of Food Ingredients Speciality Pvt. Ltd., Chennai, who shared her insights into food processing advancements.
- Dr. Nilesh S. Amritkar, National President of AFST(I) and Managing Director of Envirocare Labs, who emphasized the importance of innovation and sustainability in the field of food technology.

Convenors and Organizing Committee:

- 1. Dr. Nagamaniammai G, Associate Professor, Department of Food Process Engineering, SRMIST, and
- 2. Mr. Manivannan A, Vice President, AFST(I), Chennai Chapter.





EVENTS ATTENDED BY FACULTY

- ◆ Dr. G. Nagamaniammai, Associate Professor, completed Faculty Development Programme on Universal Human Value II organized by AICTE at SRM IST, Kattankulathur from 8th to 12th April'24.
- ◆ Dr. P. Gurumoorthi, participated in AICTE Training and Learning (ATAL) Faculty
 Development Programme On "Technology Dissemination on The Sustainability of
 Animal Food Products on Human Nutrition and Health" organised from 05.08.2024 to
 10.08.2024 at the College of Poultry Production and Management, Hosur and delivered
 a technical talk on "Toxicological Evaluation of Animal Food and Feed.
- ◆ Dr. S. Periyar Selvam attended the five days Universal Human Values (UHV) II Program on 1.10.2024 to 5.10.2024 at Peter Drucker Hall, MBA Ground Floor, SRMIST, KTR.
- ◆ Dr. L. Antony Catherine Flora, attended the webinar on "Creating and Formatting your journal articles and Theses: Save research time with SciFlow" on October 6th conducted by SciFlow and Balani Infotech Pvt Ltd.
- ◆ Dr. L. Antony Catherine Flora participated in the webinar on "Towards Zero Hunger: Reducing Food waste for global food security" organized by the Food and Agricultural department of BIS on World Food Day on 16th October 2024.
- ◆ Dr. L. Antony Catherine Flora attended and completed the Online Faculty Refresher and Assimilation Program (FRAP) conducted by SRMIST.
- ◆ Dr. S. Periyar Selvam attended "NABL one-day Awareness Program on 23rd October 2024 at MWC Club, Downtown Building, Second Avenue, Mahindra World City, Chengalpattu, Tamilnadu.
- ◆ Dr. R. Preetha attended one week (1st Nov to 7th Nov 2024) National level FDP programme on "Generative AI and tools for Academic Research"
- □ Tr. L. Antony Catherine Flora attended a workshop on Patent School Worshop organized by Department of Computing Technologies along with Centre for Intellectual Asset Production, SRMIST, from 05.11.2024 to 07.11.2024.
- ◆ Dr. S. Periyar Selvam participated in the Internal Audit Training on "ISO 22000: 2018 Programme organized by Department of Food Process Engineering and Parikshan FSS Pvt Ltd, Chennai on 02.12.2025 and 03.12.2024.
- ◆ Dr. S. Periyar Selvam participated in the FoSTaC training on catering, organized by Department of Food Process Engineering and Parikshan FSS Pvt Ltd, Chennai on 04.12.2024.
- ◆ Dr. S. Periyar Selvam participated in the FoSTaC training on Advance Manufacturing, organized by Department of Food Process Engineering and Parikshan FSS Pvt Ltd, Chennai on 05.12.2024.
- ◆ Dr. L. Antony Catherine Flora participated in the Internal Audit Training on "ISO 22000: 2018 Programme organized by Department of Food Process Engineering and Parikshan FSS Pvt Ltd, Chennai on 02.12.2025 and 03.12.2024.

- ◆ Dr. L. Antony Catherine Flora has completed the FoSTaC training in the course Advance Maufacturing & COVID organized by Department of Food Process Engineering and Parikshan FSS Pvt Ltd, Chennai on 05.12.2024.
- ◆ Dr. L. Antony Catherine Flora has completed the FoSTaC training in the course Advance Catering & COVID organized by Department of Food Process Engineering and Parikshan FSS Pvt Ltd, Chennai on 04.12.2024.
- ◆ Dr. P. Gurumoorthi attended the 30th Indian Convention of Food Scientists & Technologists (ICFoST) "Food Safety, Standards, Security and Sustainability" 'FoodSSSS' held from 19th December to 21st December 202, at D.Y Patil University. Nerul Navi Mumbai.

INDUSTRIAL VISITS

Industrial visits were arranged for the postgraduate students from the Department of Food Process Engineering at SRM Institute of Science and Technology (SRMIST) to the state-of-the-art manufacturing facility of EID Parry Sugar Industry, Cuddalore, on 9th October 2024 to and on December 9th and 10th, 2024, to Hatsun Agro Product Limited (HAP) in Red Hills, Chennai. Hatsun Agro.

This visit was meticulously organized to provide students with practical exposure to cutting-edge production techniques, rigorous quality control systems, and advanced automation processes in the sugar refineries, dairy and frozen dessert sectors. The experience offered unparalleled insights into the sophisticated operations that define a world-class manufacturing facility.

Key Learnings

This industrial visit enriched the students' understanding of:

- Production Excellence: Detailed exposure to the manufacturing processes of ice creams and frozen desserts.
- Quality Assurance: Comprehensive insights into quality control protocols and testing methodologies.
- Automation in Food Processing: Observing the implementation of advanced machinery and technologies.
- Cold Chain Logistics: Learning the importance of temperature regulation in maintaining product integrity.

Highlights

➤ Industry Visited: EID Parry Sugar Industry

Date of Visit: 9th October 2024

Location: Nellikuppam, Cuddalore, Tamilnadu

Participants: II M. Tech Food and Nutritional Biotechnology (15 students) and Ph.D.

Research Scholars (2)

Organizer and Faculty Accompanied: Dr. S. Periyar Selvam



FOOD EXPRESSO

Industry Visited: Hatsun Agro Product Limited

Date of Visit: 9th December 2024

Location: Redhills, Chennai, Tamilnadu

Participants: I M. Tech Food and Nutritional Biotechnology students (11 students) and

Food Safety and Quality Management students (27)

Organizer and Faculty Accompanied: Dr. L. Antony Catherine Flora and Dr. S. Periyar

Selvam



➤ Industry Visited: Hatsun Agro Product Limited

Date of Visit: 10th December 2024

Location: Redhills, Chennai, Tamilnadu

Participants: II M. Tech Food and Nutritional Biotechnology students (18 students) and

Food Safety and Quality Management students (18) and PhD Scholar (3)

Organizer and Faculty Accompanied: Dr. L. Antony Catherine Flora and Dr. S. Periyar

Selvam





Mr. Palanivelraj Sivamani Vedhachalam (Batch of 2008, B.Tech- FPE), Manager, ALS Testing Services India Pvt Ltd, Bangaluru and Mr. Srikanth (Batch of 2019, M.Tech (FSQM), Manager, ALS Testing Services India Pvt Ltd, Bangaluru delivered a talk on "Opportunities for Food Professionals in Testing and Certification Organizations" on 6th

Feb 2024.



♠ Mr. Abhishek Shukla (B. Tech FPE 2012), Program Manager, Ignite India Technoserve, New Delhi, delivered a talk on "Staple Food Fortification to Overcome Hidden Hunger as Per SDG 2: Initiatives, Challenges and Outcomes In India" on 21st March '24.

★ Ms. Leeza Chawla, (M. Tech FNB- 2019), Assistant Manager-Hygiene & Quality, Cesta Services LLP, Gurugram delivered a talk on "Food Safety in Catering Industries" on 26th

April '24.



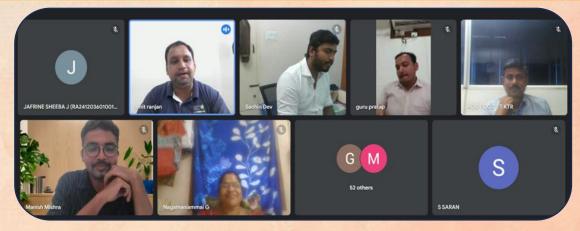
- ♦ Mr. G. S. Vaithianathan (M. Tech FNB-2021), Manager, Food Safety and Quality Assurance, Dindugal Thalapakatti Hotels Pvt. Ltd, Chennai, delivered a Placement Drive Talk on 26th April '24.
- ◆ Ms. Shiny Derose, (M.Tech Food Safety and Quality Management, class of 2021), Food Safety Manager, Proodle Hospitality Services in Chennai delivered talk on

- Understanding Quality Assurance prospects in Commercial Kitchens: Perspectives from an Alumna on 3rd May'24.
- ◆ Ms. Payel Dasgupta (BTECH FPE 2013), PMRF Research scholar of Department of Agriculture and Food Engineering IIT Kharagpur delivered talk on Exploring the Scope of Emerging Research in FoodTechnology Trends and Innovations on 22nd Aug'24.



- ◆ Department Alumni Coordinator (Dr. G. Nagamaniammai) conducted an Alumni conclave on 14th September 2024. In the conclave 5 notable Alumni working in leading Food Manufacturing industries shared their experiences in production and quality assurance in manufacturing industries. The following alumni are invited.
 - Mr. Amit Ranjan, B.Tech FPE 2013, Head operations, Akshyapatra, Chennai Region.
 - Mr. Guru Pratap, B.Tech FPE 2013, JR. Manager, Parle PVT Ltd, Pondicherry.
 - Mr. Manish Mishra, B.Tech FPE 2013, Regional Manager Quality and Food Safety, ITC Ltd, Kolkata.
 - Mr. Sachin Devendiran, M. Tech FSQM 2020, Quality Assurance Manager, Nandus Pvt. Ltd, Bangalore
 - Mr. Akhil Silla, M. Tech FNB 2022, Research Scientist DSP, Zero Cow Factory.





• Ms. Dharshini Srinivasan (M. Tech FNB 2023 Batch), SRF, NIFTEM – Thanjavur delivered a talk on "Future Prospects of Food Technology on 25th Oct'24.





Alumni Day -5.0 was organized by the SRMIST on 21st Dec'24, the following notable alumni from the department of Food Process Engineering participated in the event. In the event Mr. Mr. Abishek Abraham, (B. Tech FPE-2008), Executive Director, Aachi Groups was Awarded as Eminent Alumni by Founder Chancellor, Dr. T. P. Parivendhar.



- Mr. Abishek Abraham, (B. Tech FPE-2008), Executive Director, Aachi Groups was Awarded as Eminent Alumni.
- Mr. Nithish Kumar Singh (B. Tech FPE-2012), Manager Research and Development, Cadbury India Limited.
- Ms. Jeevitha Shree (M. Tech FNB-2023), Market Research Executive, Escalent.



Visitors (National & International)

- ▶ Dr. K. Jayaraj Rao, Principal Scientist, Department of Dairy Technology, National Dairy Research Institute, Adugodi, Bangalore visited our department lab facility on 04/10/2024 and also discussed with PhD research scholars.
- Dr. M. Sukumar, Professor and Director, Department of Food Technology, Centre for Food Technology, Anna University, Chennai visited our department on 04/10/2024 and interacted with faculty members also discussed with department research activities.
- Mr. Dineshkumar, Tiny dot Foods Pvt. Ltd, Chennai visited our department on 23.11.2024 and discussed with faculty members and PhD research scholars.
- ▶ Dr. M. Suresh Kumar, Manager Training Division, Sim Infosystems Pvt. Ltd., Chennai visited our department on 23.11.2024 and discussed with faculty members for future collaboration. (Organized by Dr. L. Antony Catherine Flora)



STUDENTS CORNER

- ► Keerthi Aravind A, a second-year student of M. Tech. in Food Safety and Quality Management at SRM, completed an online training on "Hazard Analysis and Critical Control Point (HACCP) and ISO 22000:2018," conducted by 'Quality Fusion India' on 24th April 2024.
- ► Ardra Sunil received the Best Paper Award for the paper titled "Process Development for Refined Wheat Pasta Incorporated with Brassica oleracea var. Italica Seeds and Vicia faba" at the International Conference on New Horizons in Bioengineering: Fostering Academia-Industry Partnership on 16th February 2024.
- ▶ Jemima Shalom S, Raja Rajeshwari P, Sai Priya T, Snekha A. R., Sreemathi C., Surya Kumar K., and Tamizharasi P, students of SRM pursuing M. Tech in the Department of Food Process Engineering, participated in a training program on August 3, 2024. The session on "Advanced Manufacturing & COVID" was conducted at the Madurai Agribusiness Incubation Forum Conference Hall, NABARD Madurai Agribusiness Incubation Forum, Agricultural College and Research Institute, Madurai, Tamil Nadu. The training was organized by the Madurai Agribusiness Incubation Forum (MABIF).



- ► The Ph.D. research scholars and M.Tech. students' team participated in the Smart Agro Storage Hackathon Working Model Exhibition Engineers Day 2024, held on 17th September 2024 at the Mechanical Hanger, SRM Institute of Science and Technology. The following student teams participated in the event:
- Abhishek Biswal. R PhD Scholar
- Divyashree J.S PhD Scholar
- Vignesh M.Tech FNB
- Ananya Sarkar M.Tech FNB
- Arunkumar M.Tech FNB





Pravin, Nanda Kumar, Saipriya, Sreemathi, and Tamizharasi, students pursuing M. Tech in the Department of Food Process Engineering, attended the 30th ICFoST conference held from December 19th to 21st, 2024, at DY Patil Deemed to be University, Nerul, Navi Mumbai. They also participated in the poster presentation at the event.



- → 30 M.Tech students participated and completed the Internal Audit Training on "ISO 22000: 2018 Programme organized by Department of Food Process Engineering and Parikshan FSS Pvt Ltd, Chennai on 02.12.2025 and 03.12.2024.
- 30 M.Tech students has completed the FoSTaC training in the course Advance Maufacturing & COVID organized by Department of Food Process Engineering and Parikshan FSS Pvt Ltd, Chennai on 05.12.2024.
- 30 M.Tech students has completed the FoSTaC training in the course Advance Catering & COVID organized by Department of Food Process Engineering and Parikshan FSS Pvt Ltd, Chennai on 04.12.2024.
- More than 25 students of SRM pursuing M. Tech from the department of Food process engineering are Participated in the "National Conference on Advances in Science and Technology for Regenerative Agriculture" organized by the Department of Agricultural Engineering, "Bannari Amman Institute of Technology" on 19-12-24. They also participated in oral paper presentation on the event.

► Kerenbharath pursuing M.Tech (Food Safety and Quality Management) in the department of Food process Engineer at SRMIST, Kattankulathur, completed the audit course from the FSSAI Third Party Audit Course, expertly conducted by Nivedita Rath.

NATIONAL AND INTERNATIONAL CONFERENCES ATTENDED AND PUBLISHED

- Vishnuvardini Narayanan, Nagamaniammai Govindarajan, Model development using machine learning for IOT based gas sensor for fish quality attributes. Proceedings of peer-reviewed abstracts of International Conference on New Horizons in Bioengineering: Fostering Academia-Industry Partnership, ISBN: 978-93-340- 0981-1, Pp: 179.
- Divyashree J.S, Periyar Selvam S, "Effect of Functionalised Pure Aloe Vera Gel/Essential Oil Coating For The Postharvest Storage of White Button Mushroom (Agaricus bisporus)" proceedings of Second National Conference on Advances in Science and Technology for Regenerative Agriculture, Pp: 931
- Abhishek Biswal. R, Periyar Selvam. S "Development of Essential Oil Based Hydrogel Beads to Enhance the Shelf-life of Mango" proceedings of Second National Conference on Advances in Science and Technology for Regenerative Agriculture, Pp. 93.
- Pooja Pushkarni, Periyar Selvam. S "Effect of Hibiscus Mucilage Enriched with Essential Oil as Edible Coating for Fig Fruits" proceedings of Second National Conference on Advances in Science and Technology for Regenerative Agriculture, Pp:70.
- ► Karthikeyan Jeyasakkarai, Nagamaniammai Govindharajan, Effect of treatmentson change in antinutritional factors and protein content of horse gram (*Macrotyloma uniflorum*). Proceedings of peer-reviewed abstracts of International Conference on New Horizons in Bioengineering: Fostering Academia-Industry Partnership, ISBN: 978-93-340-0981-1, Pp: 178.
- Nishaant Namakkal Bommurasu, Sandhya Srinivasaraja, Nagamaniammai Govindarajan, A comparative study on dehydrated plant-based chicken from fava bean and chickpea with different wheat gluten ratio. Proceedings of peer-reviewed abstracts of International Conference on New Horizons in Bioengineering: Fostering Academia-Industry Partnership, ISBN: 978-93-340-0981-1, Pp: 177.
- Dharshini Srinivasan, Kaavya Ezhil Kumaran, Nagamaniammai Govindharajan Process and product development for protein fortified fruit mix powder using combinational preservation techniques. Proceedings of peer-reviewed abstracts of International Conference on New Horizons in Bioengineering: Fostering Academia-Industry Partnership, ISBN: 978-93-340-0981-1, Pp: 176.
- Soundarya Gnanasekaran, Divyadharshini Sivaraj, Nagamaniammai Govindarajan, Development and standardization of dairy alternate powder from soy sesame-almond and flaxseed oil emulsion by spray drying technique. Proceedings of peerreviewedabstracts of International Conference on New Horizons in Bioengineering: FosteringAcademia-Industry Partnership, ISBN: 978-93-340-0981-1, Pp: 175.
- → Ardra V Sunil, Nagamaniammai Govindharajan, Process development for refined wheat pasta incorporated with *brassica oleracea* var. Italica seeds and *vicia faba*. Proceedings of peer-reviewed abstracts of International Conference on New Horizons

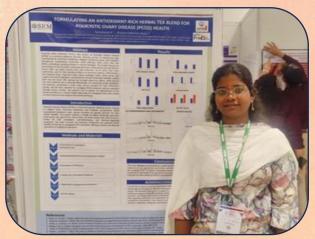
- in Bioengineering: Fostering Academia-Industry Partnership, ISBN: 978-93-340-0981s1, Pp: 174.
- Thilagavathy Ramkumar, Nagamaniammai Govindharajan, Development of ready-to-cook soup containing nata-de-coco coated with roselle leaves (*Hibiscus sabdariffa*) extract. Proceedings of peer-reviewed abstracts of International Conference on New Horizons in Bioengineering: Fostering Academia-Industry Partnership, ISBN: 978-93-340-0981-1, Pp: 34.
- Saran S, Nagamaniammai G, Development of machine learning model for IoT based gas sensors in quality analysis of chicken breast meat, Proceedings of the second National Conference on Advances in Science and Technology for Regenerative Agriculture, Pp:77.
- Gohul M Dhas, Nagamaniammai G, Assessment of Protein Quality Isolates and its Application in Food using In-Vitro Digestibility and Bioavailability for Chickpea (*Cicer Arietinum*) and Fava Bean (Vicia Faba). Proceedings of the second National Conference on Advances in Science and Technology for Regenerative Agriculture, Pp. 92.
- ► Keerthi Aravind Arumugam, Nagamaniammai G, Formulation of Nutrient-Dense Gluten-Free Crackers for Toddlers: Almond, Pumpkin, and Arrowroot Flour. Proceedings of the second National Conference on Advances in Science and Technology for Regenerative Agriculture, Pp:85.
- ► Kerenbharath S M, Nagamaniammai G, Development of artificial neural network model using IOT based multiple gas sensor for quality of chicken thigh meat, Proceedings of the second National Conference on Advances in Science and Technology for Regenerative Agriculture, Pp:75.
- Aravind G, Nagamaniammai G, Evaluation of nutritional and bio-active compounds in *Amaranthus dubius* microgreens under different cultivation techniques, Proceedings of the second National Conference on Advances in Science and Technology for Regenerative Agriculture, Pp:97.
- Arunkumar K, Periyar Selvam S, Modelling the respiration rate of custard apple at different storage temperatures for optimizing post-harvest management, Proceedings of the second National Conference on Advances in Science and Technology for Regenerative Agriculture, Pp:100.
- ► Arunkumar K, Periyar Selvam S, Modelling the respiration rate of custard apple at different storage temperatures for optimizing post-harvest management, presented a poster and won a cash price at International conference on food science and nutrition.
- ► Vignesh L, Periyar Selvam S, Development and characterization of essential oil encapsulated hydrogel beads packed in PVA / EO film for enhanced preservation of climacteric fruits, Presented a poster at the International conference on food science and nutrition.
- Preethi S, Preetha R, Enhancement of protein quality in Spirulina by In vitro fermentation using Probiotics (*Lactobacillus spp.*) for enhanced bioavailability, Proceedings of the second National Conference on Advances in Science and Technology for Regenerative Agriculture, Pp:113.
- ► Vignesh L, Periyar Selvam S, Development and characterization of essential oil encapsulated hydrogel beads packed in PVA / EO film for enhanced preservation of climacteric fruits, Proceedings of the second National Conference on Advances in

- Science and Technology for Regenerative Agriculture, Pp:102.
- Bathmasree S, Periyar Selvam S, Evaluation of drying kinetics and shelf life of pretreated white button mushroom, Proceedings of the second National Conference on Advances in Science and Technology for Regenerative Agriculture, Pp:111.
- ► Nithya Shree A, Periyar Selvam S, Development of ripeness indicator for sapota, Proceedings of the second National Conference on Advances in Science and Technology for Regenerative Agriculture, Pp:109.
- ► Sehali Sen, Periyar Selvam S, Fabrication of 3D food printer and extraction of bio ink for food product development, Proceedings of the second National Conference on Advances in Science and Technology for Regenerative Agriculture, Pp:101.
- ► Sehali Sen, Periyar Selvam S, Fabrication of 3D food printer and extraction of bio ink for food product development, Presented a poster at the International conference on food science and nutrition.
- ► Ananya Sarkar, Periyar Selvam S, Development of pH sensitive Anthocyanin based films and evaluate their real time monitoring freshness in the dairy product, Presented a poster at the International conference on food science and nutrition.
- Ananya Sarkar, Periyar Selvam S, Development of pH sensitive Anthocyanin based films and evaluate their real time monitoring freshness in the dairy product, Proceedings of the second National Conference on Advances in Science and Technology for Regenerative Agriculture, Pp:99.
- Sanjei Kumar R, Gurumoorthi P, Optimization of extraction of bioactive compound from oyster mushroom for functional food product, Proceedings of the second National Conference on Advances in Science and Technology for Regenerative Agriculture, Pp:96.
- ➤ Yuvaganesh V A, Antony Catherine Flora L, Development of a jackfruit seed starch based edible coating incorporated with eggshell calcium for carrots, Proceedings of the second National Conference on Advances in Science and Technology for Regenerative Agriculture, Pp: 67.
- Maitshaphrang Basaiawmait, Antony Catherine Flora L, Studies on the effect of drying methods on phytochemical composition of *Prunus Napaulensis* a wild edible fruit from Meghalaya, Proceedings of the second National Conference on Advances in Science and Technology for Regenerative Agriculture, Pp:71.
- Aarathy Nair M, Preetha R, Nano Delivery System for Encapsulation of Vitamin D3 for Enhanced Its bioavailability and Its application in Food Fortification. Presented abstract at the Second National Conference on Advances in Science and Technology for Regenerative Agriculture, Pp:98.
- Jisma J.C, Preetha R, Development of Bio- nanocomposite Films Using Mango Peel Nanocellulose and Mango Seed Starch for Sustainable Packaging. Presented abstract at the Second National Conference on Advances in Science and Technology for Regenerative Agriculture, Pp:103.
- Ciya Teena Tom, Preetha R, Millet Starch-based Edible Films Reinforced with Bioactive Compound Loaded Nanofiber for Food Packaging. Presented abstract at the Second National Conference on Advances in Science and Technology for Regenerative Agriculture, Pp:105.
- Elizabeth Sajeev Mathew, Preetha R, Development and Characterization of Millet

- Starch-Based Edible Films Incorporated with Bioactive Compound Nanofibers for Food Preservation. Presented abstract at the Second National Conference on Advances in Science and Technology for Regenerative Agriculture, Pp:107.
- Johaan S Thomas Mannil, Preetha R, Development of Sustainable Biowaste cutlery using Coconut Shell Cellulose, Nanocellulose and Poly Lactic Acid. Presented abstract at the Second National Conference on Advances in Science and Technology for Regenerative Agriculture, Pp:110.
- Ananya Sudheer, Preetha R, Development of Pectin Based Active Packaging Reinforced with Nisin Loaded Electrospun Chitosan Fibre. Presented abstract at the Second National Conference on Advances in Science and Technology for Regenerative Agriculture, Pp:112.
- Anukshya Subudhi, Preetha R, Development of Silver Nano-Particle Strip for Identification of Adulterants in Reconstituted Baby Formula. Presented abstract at the Second National Conference on Advances in Science and Technology for Regenerative Agriculture, Pp:114.
- ► Vallaba M, Preetha R, Development of Millet Based Edible Cup Presented abstract at the Second National Conference on Advances in Science and Technology for Regenerative Agriculture, Pp:108.
- Jeffy Ann Thomas, Preetha R, Nano-Delivery System for Encapsulation of Calcium for Enhanced Bio-Availability and its Application in Food Fortification. Presented abstract at the Second National Conference on Advances in Science and Technology for Regenerative Agriculture, Pp:106.
- Suryakumar A, Antony Catherine Flora L, Development of protein enriched cookies by using Azolla and Spirulina, Proceedings of the second National Conference on Advances in Science and Technology for Regenerative Agriculture, Pp:78.
- Tamizharasi P, Antony Catherine Flora L, Formulating an antioxidant rich herbal tea blend for polycystic ovary disease health, Proceedings of the second National Conference on Advances in Science and Technology for Regenerative Agriculture, Pp:76.
- Jemima Sharlym Suresh, Periyar Selvam S, Development of polymer based biocomposite packaging films with essential oil nanoemulsion to enhance the shelf life of papaya, Proceedings of the second National Conference on Advances in Science and Technology for Regenerative Agriculture, Pp:74.
- Snekha A R, Periyar Selvam S, Development of essential oil nanoemulsion based coating solution to enhance the shelf of custard apple, Proceedings of the second National Conference on Advances in Science and Technology for Regenerative Agriculture, Pp:73.
- ► Sreemathi C, Nagamaniammai G, Assessment of Spray Dried Powder Physical, Chemical and Functional Properties of Biofortified Functional Food Supplement from Karunguruvai Rice, Chia Seeds and White Cowpea. Proceedings of peer reviewed abstracts on Indian Convention of Food Scientists & Technologists.
- Sai Priya Thamodaran, Nagamaniammai Govindarajan, Development of Designer Food Powder for Improvement of Sperm Quality Using Mappillai Samba Rice. Proceedings of peer reviewed abstracts on Indian Convention of Food Scientists & Technologists.

- ▶ Nandakumar Velmurugan, Gurumoorthi Parameswaran, Studies on Process Optimization and Drying Kinetics of Black Turmeric (Curcuma Caesia) Using Different Drying Techniques by Mathematical Modelling Tools. Proceedings of peer – reviewed abstracts on Indian Convention of Food Scientists & Technologists.
- ▶ Pravin Shanmugam, Nagamaniammai Govindarajan, Preparation of Fruit Jam Enriched with Barley Malt Extract. Proceedings of peer – reviewed abstracts on Indian Convention of Food Scientists & Technologists.





Tamizharasi P, Antony Catherine Flora L. 'Formulating an Antioxidant-Rich Herbal Tea Blend for Polycystic Ovary Disease (PCOD) Health.' Proceedings of Peer-Reviewed Abstracts from the Indian Convention of Food Scientists Technologists.

CONFERENCE AND TRAINING ATTENDED BY RESEARCH SCHOLARS



- Navin Venketeish KS Attended the workshop on 'Advanced Food Analytical Techniques: Theory and Practical Applications' at the National Institute of Technology, Rourkela, from July 8th to 12th, 2024."
- Navin Venketeish KS Attended the GIAN course on 'Innovative Approaches for a Sustainable Blue Circular Bioeconomy of the Food and Feed Value Chain' from December 20th to 29th, 2024, at the National Institute of Technology, Rourkela.



- ➤ Nishaant N B Attended and presented a oral presentation at the International Conference on 'Impact of Climate Change on Biodiversity A Global Perspective,' held at Madras Veterinary College, TANUVAS, Chennai, from July 11th to 13th, 2024.
- ➤ Nishaant N B Attended the GIAN course on 'Innovative Approaches for a Sustainable Blue Circular Bioeconomy of the Food and Feed Value Chain' at the National Institute of Technology, Rourkela, from December 20th to 29th, 2024.



- Abishek Biswal R Attended and presented a poster at the International Conference on Emerging Post Harvest Technologies for Shelf-Life Enhancement and Valorization of Horticultural Crops, TNAU, 2024.
- ➤ Abishek Biswal R Attended and won the best paper award at the Second National Conference on Advances in Science and Technology for Regenerative Agriculture, Department of Agricultural Engineering, Bannari Amman Institute of Technology, Erode, Tamil Nadu, India, 2024.



Divyashree J.S – Attended and presented a poster at the International Conference on Emerging Post Harvest Technologies for Shelf-Life Enhancement and Valorization of Horticultural Crops, TNAU, 2024.



➤ Dharini V – Attended and presented a poster at the International Conference on Emerging Post Harvest Technologies for Shelf-Life Enhancement and Valorization of Horticultural Crops, TNAU, 2024.

NO. OF Ph.D. AWARDED: 2

S. No	Name of	Reg. No.	Area of the Research	Date of	Guide
	Scholar			Award	
1.	Senthamil	RA1813010011011	Development of bio-	27.09.2024	Dr. S.
	Selvi. P		composite packaging		Periyar
	1		material with essential		Selvam
			oils to control the		
			postharvest diseases in		
			sapota (Manilkara		
			zapota)		
2.	Dharini.	RA1913005011005	Development of	04.10.2024	Dr. S.
題信	V		Polysaccharide Based		Periyar
			Active Coating		Selvam
			Materials and	E'ST ITE	
			Functionalized		
			Biocomposite Films		
			for the Postharvest		
		THE SECTION OF THE SE	Shelf-Life Extension	TO BUILDING	HHE
75		2-19 11/12/1	of Papaya (Carica		
		THE CONTRACTOR	Papaya)		



OTHER ACTIVITIES

Successfully completed the Annual Academic Audit on 26th September 2024. The audit
was conducted by external expert Dr. Arumugam Rajavelu, Associate Professor, Indian
Institute of Technology, Chennai, with Dr. S. Bharathi serving as an observer. Effectively
presented the academic performance documents and records of the department for the
period from July 2023 to June 2024



• Our department faculty research teams are displayed their research findings and interacted with industrial participants in the IRIS 23.11.2024.



STUDENT EXPO

First-year M. Tech students in Food Safety and Quality Management and Food and Nutritional Biotechnology developed devices based on their innovative ideas and learning from the course, Food Processing, Preservation, and Quality Assurance. The developed device models were presented to visitors on 7th December 2024, and the event was coordinated by **Dr. G. Nagamaniammai.**

Team	Model	Team Members
Team 1	Hybrid Solar - Electric Dryer	 Jeevakanth Sathish Sridhar Harish
Team 2	Smart Herb Preserver	 Sheeba Sweety Shakthi S Prasana Sri Yeswanth Raja Samuel Alan
Team 3	Identification of Food Contamination in Liquid Foods	 Lavanya P Kaaviya K Nakshatra Natraj S Adhisha K
Team 4	Portable Food Temperature Controller	 Moshika A Midhun P Nair Mohamed Musruf A Tanusri B
Team 5	Colour-Based Ripening Detector	 Laxmi Revi Saranya M S Lizbeth Isaces Akhil Sasikumar Nevin Mathew
Team 6	Solar Energy Utilized Paneer Coagulator	 Oindrila Mazumder Jafrine Sheeba J Poorna Lakshmi S.R Saranya M Janet C
Team 7	Meat Analyser	 Kirubhaharan Gopika R S Nidhi S Kumar Sheik Omar Musthaq A R
Team 8	MAT Storage Solutions	 Madhumitha B.V Jabasteena.R Abshana Trafflin S P
Team 9	Anti-Contaminant Food Storage Device	 Prarthana Subiksha Gowdhami.J Kankana De Ashwini.M.













OUTREACH EVENTS

Eat Right Challenge Awareness Programme at SRM Public School

The Department of Food Process Engineering at SRMIST, Kattankulathur, spearheaded an inspiring Eat Right Challenge Awareness Programme for the students of SRM Public School, Guduvancheri. The event, coordinated by **Dr. G. Nagamaniammai**, Associate Professor, Department of Food Process Engineering, SRMIST, Kattankulathur, took place on 19th January 2024, starting at 10:00 AM.

The event saw an incredible turnout of around 200 enthusiastic SRM Public School students, eager to embark on a journey toward wellness. It was a resounding success, graced by the esteemed presence of Mr. M. Subramanian, the Correspondent; Dr. K. R. Maalathi, the Advisor; and Mrs. Bhuvaneshiwari S, the Principal.

Kudos to the brilliant students: Mr. V. Nanda Kumar, Ms. P. Raja Rajeshwari, Ms. C. Sreemathi, Mr. V. A. Yuvaganesh, Ms. S. Jemima Shalom, Ms. P. Tamizharasi, Ms. A. R. Snekha, Mr. A. Keerthi Aravind, and Mr. Vignesh L.

T. Sai Priya from first-year M.Tech. Food Safety and Quality Management, and Ms. Ciya Teena Tom, Ms. L. Vignesh, Ms. Anukshya Subudhi, and Ms. Ananya Sudheer from first-year M.Tech. Food and Nutritional Biotechnology. They orchestrated engaging and insightful demonstrations, fostering awareness and inspiring healthy choices among the future lead.



EAT RIGHT CHALLENGE AWARENESS PROGRAMME - SP KOVIL SCHOOL

The Department of Food Process Engineering at SRMIST, Kattankulathur, conducted an outreach programme on the Eat Right Challenge Awareness Programme for school students. The event was held at Singaperumal Kovil Government Higher Secondary School in collaboration with Unnat Bharat Abhiyan, SRMIST, on 19th January 2024, starting at 2:30 PM.

Approximately 200 enthusiastic school students actively participated in a day filled with enlightening activities. The event, gracefully presided over by Head Mistress Mrs. Lalitha, featured a series of activities, including discussions on the Food Pyramid, simple adulteration detection methods, FSSAI's Pink Book, and a session on selecting the Right Processed Food.

The demonstrations were given by students Mr. V. Nanda Kumar, Ms. P. Raja Rajeshwari, Ms. C. Sreemathi, Mr. V. A. Yuvaganesh, Ms. S. Jemima Shalom, Ms. P. Tamizharasi, Ms. A. R. Snekha, Mr. A. Keerthi Aravind, and Ms. T. Sai Priya from 1st-year M.Tech. Food Safety and Quality Management, and Ms. Ciya Teena Tom, Ms. L. Vignesh, Ms. Anukshya Subudhi, and Ms. Ananya Sudheer from 1st-year M.Tech. Food and Nutritional Biotechnology.



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VOL 1 ISSUE 1 FPE

STUDENT'S ARTICLES

FUN FACTS ON NUTRITION AND CLINICAL STUDIES

- ▶ Laughing Is Good for You (Literally): Clinical studies have shown that laughing can increase blood flow, reduce stress, and even improve immune function. So, the next time you watch a funny cat video or an episode of your favorite comedy show, remember—you're boosting your health!
- ► Eating Chocolate Improves Brain Function (But Only if You Eat It with Your Brain, Apparently): Some studies have shown that eating chocolate, especially dark chocolate, can improve cognitive function. So, if you're ever in a brain freeze, just grab some chocolate... you know, for "science."
- Chocolate Cake Can Help You Lose Weight (If You Do It Right): Some studies on "time-restricted eating" have shown that having dessert (like chocolate cake) in the morning, as part of a balanced breakfast, might help with weight loss by keeping you satisfied throughout the day. So yes, you could technically eat cake and still lose weight—just don't overdo it!
- There's a Diet for Every Type of Person (Even Superheroes): Clinical studies have shown that different diets (like high-protein, ketogenic, or plant-based) work best for different individuals. And while there's no official "superhero diet," if Batman were real, he'd probably thrive on a low-carb, high-protein diet—keeping the batcave fit, one chicken breast at a time.
- ► An Avocado a Day Could Keep the Doctor Away (No Guarantee, though): Some studies show that eating just one avocado a day can reduce cholesterol levels and support heart health. So if you're ever asked to share your guacamole at a party, just say, "Sorry, it's for my health!"
- "Food Coma" Is a Real Thing: You know that feeling you get after a big meal, when you just want to curl up and take a nap? Well, it's scientifically backed! After a large meal, blood flow to your digestive system increases, which can cause a drop in blood pressure and make you feel sluggish. It's not laziness—it's biology.
- Pizza Slices Can Be Calorie-Counting Superheroes: A study once revealed that people tend to eat more calories when they order pizza slices from a "whole" pizza, as they subconsciously misjudge portion sizes. So, ordering a pizza and then pretending each slice is a mini-pizza might not be the best strategy for your waistline!

Madhumitha B V

1st Year M.Tech Food and Nutritional
Biotechnology

COSMIC MEALS

Fueling Astronauts Beyond Earth

Space food refers to the specially prepared and packaged meals astronauts eat while on space missions. HISTORY:

The early meals were largely limited to semi-liquid or paste-like substances that could be consumed through tubes. For example, astronaut Yuri Gagarin, the first human in space, ate a basic meal of puree-like foods in his Vostok spacecraft 1961. The Gemini in astronauts ate food in small, sealed packages, while the Apollo missions introduced the first freeze-dried foods in 1969. The development of space food has continued through NASA's Space Shuttle program (1981-2011)



Challenges of space food include microgravity effects, limited storage, and nutrient preservation. Future advancements may include 3D printing, food cultivation in space, and more sustainable, fresh, and diverse meal options for astronauts.

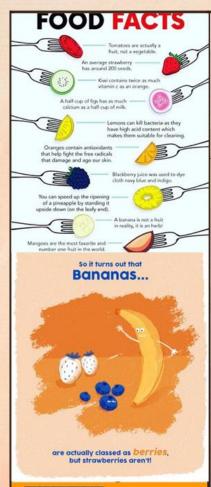


TYPES OF SPACE FOODS:

- Dehydrated Foods
- Example: Freeze-dried scrambled eggs, which astronauts rehydrate with water.
- Thermostabilized Foods
- Example: Beef stew in a sealed pouch, ready to eat after being warmed.
- · Snack Foods
- Example: Trail mix, providing quick energy and easy consumption during missions.
- · Fresh Foods
- Example: Fresh fruit, such as apples, occasionally sent to the ISS on resupply missions.
- Specialized Space Foods
- Example: 3D-printed pizza, a potential future space food innovation for more personalized meals.

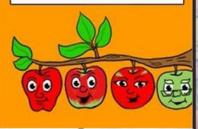
R SANJEI KUMAR 2nd Year MTech FOOD AND NUTRTIONAL BIOTECHNOLOGY





DID YOU KNOW?

There are so many apple varieties that if you were to eat an apple a day, it would take you over 27 years to try them all. (And more kinds are produced every year!)



THE DYE USED FOR SOME RED CANDY, CAKE, AND DRINKS IS MADE FROM THE CRUSHED BODIES OF BEETLES.

Food Wonders!!!

During the 1904 World's Fair, an ice cream vendor ran out of bowls. A nearby waffle vendor rolled his waffles into cones, creating the first ice cream cone!

The ancient Aztecs valued cocoa beans so much that they used them as money. Imagine paying for groceries with chocolate bars today!

Ever wondered why apples float? It's because they're made up of 25% air! That's why they're perfect for games like bobbing for apples.

Honey found in 3,000-year-old Egyptian tombs is still edible today! Its natural acidity and low moisture content make it immune to spoiling.

Ketchup Was Medicine – In the 1830s, ketchup was sold as a remedy for indigestion.

Potatoes were the first vegetable grown in space aboard the Space Shuttle Columbia in 1995.

Due to their high oil content, pistachios can heat up and self-ignite if stored improperly. Proper ventilation is crucial to prevent fire hazards.

Storing onions with potatoes causes them to sprout and spoil faster because both release gases that speed up ripening.

R. SANJEKUMAR

2ndYearM.Tech FOOD

ANDNUTRTIONAL

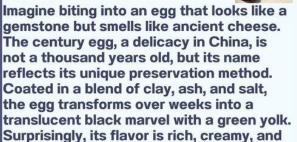
BIOTECHNOLOGY



THE WORLD'S WEIRDEST FOODS **ACULINARY ADVENTURE**

Food is more than sustenance; it's a gateway to culture, history, and adventure. Across the globe, people have embraced culinary traditions that might seem bizarre to outsiders but hold deep cultural significance. From insects to fermented creations, these unique dishes challenge our understanding of what's "normal" and invite us to explore the limits of our taste buds. Let's journey through some of the world's strangest yet fascinating foods-if you dare!

Century Egg - A Timeless 🖥 **Treat from China**



slightly salty-perfect when paired with rice

Crispy Snack What's crunchier than potato chips?

Fried Tarantulas - Cambodia's

Fried tarantulas! Once a survival food during Cambodia's Khmer Rouge era, these eight-legged creatures have become a beloved street food. Seasoned with garlic and spices, they're crispy on the outside and tender on the inside. Eating one might sound terrifying, but it's said to be a satisfying blend of chicken and seafood flavors.

Durian - The King of Contradictions

r porridge.



Escamoles - Mexico's Insect

In Mexico, insects aren't pests-they're delicacies. Escamoles, or ant larvae, are harvested from agave plants and are considered a luxurious treat. These tiny pearls have a buttery texture and a nutty flavor, often served in tacos or scrambled eggs. Think of it as nature's answer to caviar.

Are You Ready to Take a Bite?

Sometimes, the weirdest foods make the best storiesand the most unforgettable meals.



JEMIMA SHALOM S

- M.Tech Food Safety and Quality Management- II Year
- Food process engineering department
- srmist

Would you take the challenge? The adventure is on your plate.

GALLERY



Faculty of Department of Food
Process Engineering



Technical and Administrative Staff in Food Process Engineering



M.Tech (Food and Nutritional Biotechnology) First year



M.Tech (Food Safety and Quality Management) First year



M.Tech (Food and Nutritional Biotechnology) Second year



M.Tech (Food Safety and Quality Management) Second year



Ph. D Food Process Engineering

"Coming together is a beginning; keeping together is progress; working together is success." – Henry Ford

THANK YOU FOR YOUR CONTINUED SUPPORT AND INTEREST IN OUR WORK.

WARM REGARDS,
EDITORIAL TEAM,
DEPARTMENT OF FOOD PROCESS ENGINEERING

திருக்குறள்

அயர்வும் உளர்வும் விழைதுட்பும் இல்லா நயம்நிறை உண்பான் உயிர்த்து.

(குறள் 947)

பொருள்:

சத்து நிறைந்த உணவைச் சரிவிகிதத்தில் உண்ணும் ஒருவன் சோர்வு, தாகம், மற்றும் ஆரோக்கிய குறைபாடுகளின்றி நலமாக வாழ்வான்.

MEANING:

One who eats nutritious and balanced food will live free from fatigue, weakness, and excessive cravings, enjoying good health.















OS 4 Star Rated Globally

