



# NIFTEM-K NEWSLETTER

VOLUME 1, ISSUE 1, SEPTEMBER- DECEMBER 2023



**National Institute of Food Technology Entrepreneurship and Management  
(NIFTEM-Kundli)**

(An Institute of National Importance under the Ministry of Food Processing Industries, GoI)

# VISION

To act as an international center of excellence integrating all the facts of food science, entrepreneurship and management and serve as the focal point for catalyzing the growth of food processing industry in india and the world.

# MISSION

- To be a harbinger in Academics, Research, Capacity building and Entrepreneurship in different facets of Food Science and act as one stop solution provider for all the Food Processing needs
- Develop technically feasible, commercially viable and globally competitive technologies in Food Processing through creation of a robust academic and R&D ecosystem
- Transform the FPOS, rural and urban youth and the start-ups to established entrepreneurs and techno managers of tomorrow in the food processing sector





## From the Desk of the *Director*

*Dr. Harinder Singh Oberoi*


### **FROM NIFTEM OF MY DESIRE TO NIFTEM OF MY DREAMS**

Let me take this opportunity to wish all the readers of the NIFTEM-K newsletter a very happy and blissful 2024. The four months (September – December 2023) have been quite eventful for the Institute as NIFTEM-K organized an International Conference on Millets for Achieving Nutritional and Economic Security (ICMANES), a first of its kind mega event at NIFTEM-K during 21-23 September 2023, which witnessed the presence of about 1000 participants physically and 400 participants virtually. The three days Conference was inaugurated by Professor Ajay Kumar Sood, Principal Scientific Advisor to the Government of India and attended by the Academicians, Researchers from all over the world, Executives from the top Food Processing companies in India having their presence in different countries, Ambassadors, High Commissioners and senior officers from Embassies and High Commissions of different countries in India, Secretaries, Additional Secretaries and Joint Secretaries from different Ministries, eminent personalities in sports, chefs, NGOs, FPOs, research scholars and students. The event was a big success as the panel discussions were very informative and thought provoking. Academic Manthan brought on board the Vice Chancellors and Directors from 35 different Universities and Institutes in the country. The B2B session saw the presence of large number of reputed Food Processing companies, MSME and start-ups. Millet recipe competition, cookery shows, millet ideation hackathon and the exhibition showcasing the technologies and products developed by the Start-ups, FPOs and NGOs were the other highlights of this mega event. The recommendations emerging out of the three days event were circulated among the concerned Ministries, Departments and other stakeholders. The details of the programme were hosted on the website of FAO and the programme was live telecasted on the NIFTEM's YouTube channel. The Institute in association with Indian Food and Beverage Association (IFBA), celebrated the World Food Day on the theme 'Food for Better Tomorrow-Building Synergies' on 16<sup>th</sup> October 2023. The program was inaugurated by Smt. Anita Praveen, Secretary, Ministry of Food Processing Industries and featured over 20 eminent speakers drawn from Academia, Food Industry and Technical organizations who took part in three Panel discussions to carve out a path for collaborations to ensure that no one is left behind which aligned well with the theme of the World Food Day "Water is Life, Water is Food, Leave No One Behind". The Institute made its presence felt at the World Food India (WFI) event organized by MoFPI from November 3-5, 2023. The Institute's pavilion was visited by the Hon'ble Minister for Commerce and

Industries, Consumer Affairs, Food and Public Distribution and Textiles, Sh. Piyush Goyal, Hon'ble Minister for Food Processing Industries, Sh. Pashupati Kumar Paras, Hon'ble Ministers from different States. Managing Directors, CEOs and senior executives from reputed Food processing companies, VCs. Directors, Deans from Academic and R&D organizations, senior executives and officers from Banks, Start-ups, FPOs, Universities, Institutes, etc. Our conspicuous participation in WFI has helped us in fostering our collaborations with the other Academic and R&D organizations and strengthening linkages with the Food Processing Industry in the country. I along with four of our faculty members were also involved as Moderators or Panelists in different technical sessions besides our involvement in coordination and management of the technical sessions. One of the highlights of the event was signing of the MoU between NIFTEM-K and HDFC Bank Ltd to support Start-ups in Food Processing domain. NIFTEM-K stall, positioned at the heart of 27<sup>th</sup> World Investment Conference 2023, Yashobhoomi, New Delhi stood as a beacon of innovation and culinary artistry, focusing on the cutting-edge technologies of 3D food printing and scanning. The technologies demonstrated by NIFTEM-K were appreciated by Hon'ble Minister for Commerce and Industry, Food and Public Distribution, Consumer Affairs and Textiles Sh. Piyush Goyal, Sh. Rajesh Kumar Singh, Secretary, DPIIT and Smt. Anita Praveen, Secretary, MoFPI and many senior officers from Ministries and Departments besides Start-ups.

During the past four months, the Institute has conducted 15 capacity building programmes in different areas of Food Processing for our diverse stakeholders. The faculty from the Institute has published 41 research papers, demonstrating the focus of the Institute in conducting cutting edge research in different facets of Food Processing. The Institute also transferred technologies for 21 different products to two different companies in the MSME sector, reassuring the commitment of the Institute to support the Entrepreneurship Development and MSME sector in Food processing in the country. The visit of teams from HUL, Dabur, LT Foods, KRBL, GAIN and Hon'ble MP from Narasaraopet constituency, AP, Sh. Krishna Devarayalu Lavu and Dr. SP Vasireddi, Chairman and Founder of Vimta Labs are testimony to the fact that the Food Processing Industry in the country wishes to establish strong synergies with NIFTEM-K to improve the food processing scenario in the country. The Institute successfully conducted the BoS meeting of the UG degree programme as well as the PG programme running in five departments, BWC, FC and BoG meetings for bringing in more energy and focus in overall functioning of the Institute. I also got an opportunity to attend the 46<sup>th</sup> Codex Alimentarius Commission at FAO, Rome as a part of the Indian delegation led by CEO, FSSAI. The efforts of the delegation in promoting India's proposal for setting up group standards for millets was accepted by the Commission and India's initiative for establishing global standards for millets were appreciated by the Honble Minister for Health and Family Welfare, Dr. Mansukh Mandaviya. India has also been unanimously elected as a member representing Asian region in the Executive Committee of CAC. I also visited the German Federal Institute of Risk Assessment (BFR) and The Federal office of Consumer Protection and Food Safety (BVL) in Berlin on December 1, 2023 for possible collaborations in R&D in Food Safety and development of novel products and their safety assessment. The areas and modalities are being worked out for possible collaboration with BFR. My colleagues from the Institute visited Thailand and UAE for possible collaborations as well as presenting their work.

I am quite confident that with the focussed and committed faculty and staff of the Institute and new initiatives being taken to revise the academic curriculum, bringing more impetus to research, creation of new programmes and centres will make NIFTEM, Kundli an Institute of dreams not only for our students but our valued stakeholders.



**Dr. Harinder Singh Oberoi**  
Director (NIFTEM-K)

# Events

## **International Conference on Millets for Achieving Nutritional and Economic Security (ICMANES-2023)**

International Conference on Millets for Achieving Nutritional and Economic Security (ICMANES-2023) was held at NIFTEM-K from 21<sup>st</sup> -23<sup>rd</sup> September 2023. The three-day conference was inaugurated by Prof. Ajay Kumar Sood, Principal Scientific Advisor, Govt. of India, in the august presence of Dr. Trilochan Mohapatra, Chairman, PPVFRA, Sh. Preet Pal Singh, Joint Secretary, Ministry of Food Processing Industries, and Dr. H.S. Oberoi, Director, NIFTEM-K. A recorded AV message, exclusively meant for ICMANES-2023 from Ms. Makiko Taguchi, Agricultural Officer, IYM secretariat, FAO, Rome was telecasted (LIVE) from FAO, adding significant flavor to the inaugural event. The three-day event brought together academicians, scientists/researchers, regulatory experts, food processing, hospitality and service industry executives, consumer groups and enthusiasts on unified platform to discuss the prospects and challenges surrounding millet production, processing, valorization, and popularization so as to propel millets into the global spotlight. The diverse tapestry of pivotal sessions and parallel events of this landmark conference not only celebrated the potential of millets to address nutritional and economic challenges but also charted a course for their resurgence in agriculture, nutrition, and industry worldwide. From in-depth technical sessions to creative ideation hackathons, millet recipe competition, cookery show and insightful industry dialogues, ICMANES-2023 showcased the boundless possibilities of millets as a solution for healthier lives and a more sustainable future. The three days event was attended by more than 1000 participants physically and about 400 participants virtually. The event was live telecasted on the You-Tube on all the three days and received about 14000 subscriptions. The details of the programme were also hosted on the website of FAO under the side events category (<https://www.fao.org/millets-2023/events/detail/international-conference-on-milletsfor-achieving-nutritional-and-economic-security-icmanes/en>).

The Academic Meet, aptly named Manthan on "Prospects and Challenges in Millet Production, Processing, Valorisation and Consumption" held on 21<sup>st</sup> September, 2023, saw a gathering of intellectual giants comprising of 35 Vice Chancellors and Directors representing esteemed National Universities and Institutions. The B2B Conclave on Day 2 at ICMANES-2023 emerged as a pivotal platform for charting the course of the Millets movement beyond 2023. This insightful gathering brought together 48 industry leaders who shared invaluable insights into the key drivers of millet sustainability.

The three-day event concluded with a grand fair, featuring Hon'ble Union Minister of Food Processing Industries, Sh. Pashupati Kumar Paras, as the Chief Guest, accompanied by Sh. Minhaj Alam, Additional Secretary, MoFPI, Dr. Harinder Singh Oberoi, Director, NIFTEM-K and Sh. Mohan Lal Badoli, MLA, Rai. Hon'ble Union Minister Sh. Pashupai Kumar Paras congratulated NIFTEM-K for the successful conduct of the International Conference and stressed on the importance of initiating a millet revolution in India. He highlighted the significance of declaring 2023 as the International Year of Millets (IYM 2023) by the United Nations, driven by the country's Hon'ble Prime Minister Sh. Narendra Modi's efforts, as a symbol of India's commitment to combat malnutrition.





## World Food Day

NIFTEM-K in association with the Indian Food and Beverage Association (IFBA) celebrated the World Food Day 2023 on 16<sup>th</sup> October 2023. With the theme “Food for a Better Tomorrow – Building Synergies”, the World Food Day brought together eminent leaders from the academia, industry, and the government to synergise and envision the future of the food sector in India. The World Food Day 2023 program was inaugurated by Smt Anita Praveen, Secretary, Ministry of Food Processing Industries in august presence of dignitaries from the government and industry like Dr. S.S. Deswal, IPS (Retd.) and Vice Chancellor, Sports University, Haryana, Dr. H.S. Oberoi, Director, NIFTEM-K, and Mr. Deepak Jolly, Chairman, IFBA. The program featured over 20 eminent experts from India's food & beverage and processed foods sector - academics, industry professionals, and technocrats - who deliberated on key topics, such as the importance of sustainable water use, ensuring food security for a growing nation, and the contribution of the food sector to Vision 2047.



## World Food India

NIFTEM, Kundli was like a bright star at the World Food India 2023. The Institute demonstrated the technologies developed at NIFTEM Kundli like Infra-red (IR) assisted evacuated tube solar dryer, IR hybrid dryer, IoT based dryer, “Cocoshreth” coconut water extraction machine, boondi dispenser machine, meat carcass storage system and 3D food printer. Besides, a variety of products prepared exclusively from millets, oil powder, linseed cake papad, energy bar & vitamin B2, B12 fortified yoghurt etc. The start-ups incubated at NIFTEM-Kundli and alumni entrepreneurs from the NIFTEM-K also exhibited their innovative products. The representatives and top-notch executives from the food industry, viz., Nestle, ITC, Marico, Britannia, HUL, Suhana Masala, Amul, Waycool Foods & Products etc., and from academia viz., CFTRI, Mysore; State Agricultural Universities and ICAR Institutes visited the NIFTEM-K pavilion, and interacted with the faculty members on recent technologies and road map for processing and commercial production of various food products.







## E-learning course on Edible oil Fortification

In collaboration with GAIN India and Empower School of Health, an E-Learning course on Edible Oil Fortification was launched at NIFTEM-K campus by Dr. H.S. Oberoi, Director, NIFTEM on 13<sup>th</sup> October 2023.

## 8<sup>th</sup> NIPUN Induction Training Programme

Dr. H.S. Oberoi, Director, NIFTEM-K and Ms. Inoshi Sharma, Executive Director, FSSAI inaugurated the 8<sup>th</sup> NIPUN: induction training programme on 26<sup>th</sup> December, 2023. This programme was organized at NIFTEM - K campus from 26<sup>th</sup> December 2023 to 15<sup>th</sup> January, 2024 for 31 newly recruited FSSAI officials. The 21 days training programme set the way ahead for 21 years or more for the career of the new recruits and aims to prepare them for the advancements, challenges and responsibilities in the regulatory and standardization aspects in food sector. Director, NIFTEM-K heartily welcomed the entire team of FSSAI to gain insights in the field in food safety and concomitantly enjoy the ambience and facilities of NIFTEM-K. Ms. Inoshi Sharma, ED, FSSAI emphasized on building network and connecting skills among the recruits in all the training sessions which will aid them at both national and international arena.



## Participation in 27<sup>th</sup> World Investment Conference 2023

NIFTEM-K stall, positioned at the heart of 27<sup>th</sup> World Investment Conference 2023 Exhibition, stood as a beacon of innovation and culinary artistry, focusing on the cutting-edge technologies of 3D food printing and scanning. The exhibition showcasing 3D food printing of marzipan sweet and millet-based cookies, alongside the innovative 3D scanning demonstration, marked a significant stride at the intersection of technology and gastronomy.



# Visit Of Delegates/ Delegations

## Hindustan Unilever Limited Delegation

A team from Hindustan Unilever Limited (HUL) visited NIFTEM-K on 14<sup>th</sup> December 2023. The delegation from HUL comprising Dr. Sujatha Jayaraman (Head R&D Nutrition South Asia and Global Beverages), Mr. Manoj Pareek (Head -R&D – Functional Nutrition Global Nutrition R&D), Mr. Lokesh Basavaraju (Senior Research Scientist), Ms. Neha Srivastava (Strategic FMCG Consumer Marketing professional), Mr. Vikesh Jain (Process capability, Deputy Program Lead & Team Leader), Dr. Minakshi Singh (Analytical Science Program Excellence Lead, Nutrition Southeast Asia) and Ms. Sari, T.P. (Innovation Scientist) and NIFTEM-K explored the possibilities of collaboration in various sectors pertaining to food processing. Some of these were industrial participation in academic research and guidance, student-scholar funding schemes, collaborative research and excellence centres, end-to-end innovations, processing, joint survey and publications, millet promotion, showcasing food technologies and research through joint road shows, up-gradation of existing knowledge and technologies through IoT and robotics etc. The team also visited the facilities such as Centre for Food Research and Analysis (CFRA, NABL certified), Centre for Food Fortification (CEFF) and NIFTEM pilot plants. Dr. H.S. Oberoi, Director, NIFTEM-K, Dr. Komal Chauhan, Dean (R&O), Dr Vinkel Arora, Associate Professor and Associate Dean (R&O), and Dr. Neetu Taneja, Assistant Professor, represented NIFTEM during this meeting.

## LT Foods Limited Delegation

A team from LT Foods Limited visited NIFTEM-K on 20<sup>th</sup> December 2023. The delegation comprised of Mr. Vijay Arora, Chairman, Mr. Ashwani Arora, MD and CEO, Mr. Surinder Arora, Joint MD, Mr. Vivek Chandra (CEO, Global Branded Business), Mr. Sanjeev Uppal (DGM, Supply Chain and Operations) and Dr. Ashraf Hassan (Head-Analytical Research and Development). Dr. H.S. Oberoi, Director, NIFTEM-K emphasized on the possible collaboration of LT Foods and NIFTEM-K for industrial participation in academic research and guidance, student-scholar funding schemes, collaborative research, promotion of indigenously developed millet products and testing kits. Emerging concerns pertaining to basmati rice authentication kits (qualitative and quantitative), allergens, millets new product development, and convenience foods were also discussed. The possibilities of extended participation of NIFTEM students in the manufacturing, sales & marketing, R & D and technical support at pilot and industrial scales was further explored. The 100% millet products developed at NIFTEM-K were highly appreciated and liked by the team.

## GAIN (India and Bangladesh) Limited Delegation

A team of GAIN delegates from India and Bangladesh visited NIFTEM-K on 21<sup>st</sup> December 2023 under the “South-to-South Learning Exchange on Food Fortification. The delegation led by Mr. Md. Zakir Hossain (Joint Secretary Planning and Deputy Project Director-Ministry of Industries), Bangladesh comprised of Ms. Shahnaz Sultana (Deputy Director, Directorate of National Consumers Rights Protection), Mr. Dipu Podder (Assistant Director, Bangladesh Food Safety Authority), Mr. Md. Kutubul Alam (Senior GM, Meghna Edible Oil Refinery Ltd.), Mr. Md. Reazul Haque (Deputy Director, Certification Marks-Bangladesh Standards and Testing Institution), Mr. Md. Abdur Bashar Chowdhary (Project Manager, food Fortification, GAIN Bangladesh), Ms. Nandinee Chowdhury (Project Manager, Digitalization, Large Scale Food Fortification Initiative, GAIN Bangladesh), Ms. Garima Singh (Project Coordinator-Food Systems dashboard and food fortification, GAIN India). Dr. H.S. Oberoi (Director), Prof.

Komal Chauhan (Dean R & O) along with other team members represented NIFTEM-K during this meeting. The delegates were briefed about the vision, functioning and structural set-up of NIFTEM-K including academic programmes, research and contract research facilities, NIFTEM technology innovation and business incubation foundation (NBITIF), Centre for Food Fortification, and Centre for Food Research and Analysis. The possibilities of collaboration pertaining to food fortification were also explored. The team was given the tour of the pilot level processing of 100% extruded millets kurkure and puffs, live-demonstration of oil and rice fortification, high-end equipments at CFRA, FSSAI notified lab and new product development work at NIFTEM-K. The delegates expressed their willingness to collaborate for multi-vitamin fortification in different products, since at present fortification in Bangladesh is limited to salt (compulsory), oil (compulsory) and rice (voluntarily) only. The need to develop fortification programme, especially for Vitamin D in the region was also highlighted. Director (NIFTEM-K) emphasized the need of food fortification to mitigate minerals and vitamins deficiency. As a way forward to the possible collaborations, he suggested to organize joint hands-on-training sessions, theme-based conferences, exchange programme and research collaborations. The team appreciated NIFTEM-K research, academic and outreach facilities and the steps suggested for collaborations in the defined sector between the two countries.



**Sri Krishna Devarayalu Lavu**

Hon'ble Member of Parliament, Narasaraopet constituency, Andhra Pradesh and Vice Chairman, Vignan University, Guntur along with Dr. SP Vasireddy, Chairman, Vimta Labs visited NIFTEM-K on 16<sup>th</sup> November 2023.



**Mr. Earl Rattray**

Chairman of Binsar Farms & Mr. Deepak Raj, Co-founder, Binsar visited NIFTEM-K



**Mr. Neeraj Prajapati**

The bicycle man of India and Brand Ambassador of NIFTEM, Kundli took a pledge on 23<sup>rd</sup> September 2023 during the International Conference on Millets for Achieving Nutritional and Economic Sustainability at NIFTEM-K that he will cycle down from Kashmir to Kanyakumari covering a distance of about 4200 km, promoting millets and millet-based products, throughout the country. His journey was flagged off from NIFTEM-K on 18<sup>th</sup> December, 2023.

## Important Meetings

- First Under Graduate Board of Studies (UG BoS) meeting (Post INI) was held on 25<sup>th</sup> November, 2023. The key agenda of the meeting was alignment of the existing NIFTEM B.Tech. (FTM) course curriculum with National Education Policy, NBA guidelines and Outcome focused based curriculum.
- Fourteenth PG Board of Studies Meeting of Department of Food Business Management and Entrepreneurship Development was held on 29<sup>th</sup> November, 2023.
- Eighth PG Board of Studies Meeting of Department of Basic and Applied Sciences was held on 30<sup>th</sup> November, 2023.
- Thirteenth PG Board of Studies Meeting of Department of Food Engineering was held on 01<sup>st</sup> December, 2023.
- Fourteenth PG Board of Studies Meeting of Department of Food Science and Technology was held on 02<sup>nd</sup> December, 2023.
- Eleventh PG Board of Studies Meeting of Department of Agriculture and Environmental Sciences was held on 03<sup>rd</sup> December, 2023.
- The Second Meeting of the Senate was held on 5<sup>th</sup> December, 2023 to address academic ordinances and activities for forthcoming sessions.
- Fourth meeting of Board of Governors (BoG) was held on 6<sup>th</sup> December, 2023 under the chairmanship of Prof. V. Ramgopal Rao, Chairman, BOG.
- Second Meeting of Finance Committee under the Chairmanship of Professor V Ramgopal Rao was held on 12<sup>th</sup> December 2023.
- Building and Works Committee meeting was held on 21<sup>st</sup> December 2023.

## Skill Development Programs

- Two weeks training programme was organized on Entrepreneurship in Food Science and Technology for 36 students of Maharana Pratap University of Agriculture and Technology, Udaipur under IDP-NAHEP from 4<sup>th</sup> October 2023 to 17<sup>th</sup> October 2023
- One day training on millet processing for 36 farmers of Haryana State was organized on 21<sup>st</sup> November, 2023 .
- Five days training program from 9<sup>th</sup> to 13<sup>th</sup> October, 2023 and again from 28<sup>th</sup> October to 2<sup>nd</sup> November, 2023 and from 21<sup>st</sup> December to 25<sup>th</sup> December, 2023 were organized on “Food, Functional Foods & Entrepreneurship Based on Ayurveda Aahara and Regulatory Aspects”. This programme was sponsored by Rashtriya Ayurveda Vidyapeeth, New Delhi (Ministry of Ayush, Govt. of India) for Ayurveda fraternity.
- Two days FSSAI sponsored training program on “Handling of ICP-MS along with Evaluation & Interpretation of Test Results, Measurement of Uncertainty and Method Validation / Verification” was organized during 10<sup>th</sup> -11<sup>th</sup> October, 2023.
- One day training programme was conducted on “Grain Processing and Baking Technology” at NIFTEM Kundli Regional Centre, Hajipur, Bihar on 21<sup>st</sup> October, 2023.

- Twelve days training program was conducted on "Practical Demonstration of Water Testing & Effective Implementation of ISO/IEC 17025:2017 for PHED (Public Health Engineering Department), Ladakh" sponsored by Training and Capacity Building (TCB), Quality Council of India, New Delhi during 30<sup>th</sup> October to 10<sup>th</sup> November, 2023.
- Five days NAHEP funded hands-on training on "Role of Staple Food Fortification in Combating Malnutrition" was organized from 20<sup>th</sup> November to 24<sup>th</sup> November, 2023.
- Two days FSSAI sponsored "Hands-on Training Program on Micro-Nutrients and Quality Parameters Analysis in Oils & Fats" was organized from 21<sup>st</sup> to 22<sup>nd</sup> November, 2023.
- One day hands on training on "Millet Based Bakery Products" was held on 29<sup>th</sup> November, 2023
- One day-hands-on training programme on "Food Processing Techniques for Skill Enhancement and Self-Employment Generation of Women" was conducted on 1<sup>st</sup> December, 2023 for the women from Surya Foundation.
- A workshop on "Biblioshiny Package in R Environment" was conducted on 7<sup>th</sup> December 2023 for Ph.D. scholars and faculty members.
- Two days FSSAI sponsored "Hands-on Training program on Microbiological Parameters for Food Safety and Process Hygiene Criteria in Fruit & Vegetable Products" was conducted from 4<sup>th</sup> to 6<sup>th</sup> December, 2023.
- Five days Entrepreneurship Development Programme on Food Processing for Women Entrepreneurs" was organized from 18<sup>th</sup> to 22<sup>nd</sup> December 2023



## Student Activities


- Students participated and secured the first position in the E-Summit Kanpur during 13<sup>th</sup> to 15<sup>th</sup> December 2023 organized by IIT - Kanpur.
- Durga Puja Festival was celebrated from 15<sup>th</sup> to 24<sup>th</sup> October 2023.
- Dandiya Night was organized by the 'Sarang society' on 24<sup>th</sup> October 2023.
- Cultural performances by the NIFTEM students were the star attractions during celebration of cultural night on 10.12.2023.
- AIDS awareness campaign was organized by 'Kalakriti Society' on 13<sup>th</sup> December 2023.
- Geetanjali Society' organized competition 'War of Words' on 14<sup>th</sup> December 2023.
- The FBMED Department conducted an industrial visit for a contingent of 49 MBA students on 5<sup>th</sup> December 2023. The faculty and students visited AMUL, Sabarkantha District Co-operative Milk Producers Union Ltd., Sabar Dairy, Rohtak and Parle Products Pvt. Ltd., Bahadurgarh. The visit was aimed at providing insights into the company's operations, supply chain and business marketing strategies.
- The Institute organized a short-term training-cum-expert lecture for the Internship batch 2023-24 on 7<sup>th</sup> December 2023. Ms. Vidhi Gupta (Freelance content writer for various Niches including finance, food and beverages and digital marketing) conducted an interactive session on “LinkedIn Profile Building” for enhancing visibility and networking capabilities in the industry.
- Business case studies/mock sessions followed by expert lectures on International Food Safety & Supply chain were offered by Dr. Ranjeet Klair, Director- Food Safety, The Acheson Group (TAG), Canada on 18<sup>th</sup> October, 2023.
- The Institute organized an expert lecture for the Internship batch 2023-24, featuring distinguished speakers from GRUPO BIMBO. Mr. Manav Malhotra, Head of Quality Assurance, R&D, and Regulatory Affairs, along with Mr. Kirti Shridhap, Manager of Quality Assurance, and Ms. Nancy Talwar, Regulatory Affairs expert, spearheaded an interactive session on 28<sup>th</sup> November 2023.
- Five days (22<sup>nd</sup> to 26<sup>th</sup> November 2023) Campus-to-Career-cum-Leadership training programme was organized for MBA students by Sprouts Change Management Pvt. Ltd. The training witnessed different domain experts who delivered lecture to the students.
- An expert talk was conducted in the Department of Food Business Management and Entrepreneurship Development on the topic “Information Technology Act- 2000” dated 29<sup>th</sup> October, 2023. Mr. Rajat Bansal (Practicing Company Secretary) covered various topics during the session, viz., the Information Technology Act, 2000, its Definition, Digital Signature, Electronic Governance Regulation of Certifying Authorities Digital Signature Certificates, Duties of Subscribers, Penalties and Offences during his talk. The talk was organized for B.Tech., M. Tech., MBA and Ph.D. Students.
- A Master Class on Consumer Protection Act-2019 was conducted on 25<sup>th</sup> November, 2023 for B.Tech., MBA and M. Tech. students. Mr. Rajat Bansal, an external expert; (Qualified Company Secretary) delivered a talk on various issues like aims and objects of the Act, Redressal Machinery, Procedure for complaints, Remedies, Appeals, Enforcement of orders and Penalties.
- A session on “Companies Act -2013” was conducted on 02<sup>nd</sup> December 2023 for the students of B.Tech., MBA and MTech. The expert, Ms. Kanika Gupta- Qualified company secretary spoke on various aspects of a Company, its Registration and Incorporation. She gave a live demonstration of the process on formation of company.



**NATIONAL INSTITUTE OF FOOD TECHNOLOGY ENTREPRENEURSHIP AND MANAGEMENT, KUNDLI**

**ONE DAY WORKSHOP**  
 In association with  
**THE ACHESON GROUP (TAG), USA**

Ms. Ranjeet Kiar, Director of Food Safety at the Acheson Group, highlighted the key aspects of food safety principles, quality control & Quality assurance.



[www.niftem.ac.in](http://www.niftem.ac.in)



## Internship and Village Adoption Programme

A total of 141 students from B.Tech., 80 students from M.Tech., and 26 MBA students went for industrial internships for 4-6 months in 92, 31, and 16 different companies, respectively. The industry paid 55%, 80%, and 73% of students from B.Tech., M. Tech., and MBA programmes, respectively during the internship. Major companies who offered internships to the students were ITC-ABD, Mondelez International, The Baker's dozen, AbinBev, Mother Dairy, Jubilant Foodworks, Coca-Cola, Perfetti Van Melle, Hatsun agro, Pepsico, Britannia etc. Highest stipend to B. Tech., M.Tech. & MBA students was ₹ 25,000/-, ₹ 35,000/-, ₹ 22,000/- respectively with overall average monthly stipend of ₹ 11,693/-.

The 18<sup>th</sup> session of Village Adoption Programme (VAP) was organized in two phases which included an online induction programme from 16<sup>th</sup> to 22<sup>nd</sup> November 2023 followed by village visits and stay in villages from 13<sup>th</sup> to 21<sup>st</sup> December 2023. The VAP-18 also got associated with UNESCO MGIEP for its SEEK course. The team NIFTEM-K made interventions in more than 20 villages across Haryana, Rajasthan, Himachal Pradesh, Kerala, Maharashtra, Telangana, Chhattisgarh, West Bengal and Tamil Nadu. About 257 students and more than 35 faculty members and staff participated in this programme. Various activities including lectures and awareness programmes on food processing, value addition, entrepreneurship were organized in the selected villages. The activities also included product development training programmes, FSSAI registration, linking entrepreneurs/women SHG to the e-commerce platforms such as amazon, Swachh Bharat Abhiyan initiatives, awareness about social issues, video shows, etc.

## National Visits

- Dr. Ashutosh Upadhyay, Professor, participated as an expert member of Quinquennial Review Team of ICAR AICRP on Postharvest Technology at TNAU Coimbatore from 6<sup>th</sup> to 8<sup>th</sup> December, 2023.
- Dr. Sunil Pareek, Professor, attended Research Advisory Committee meeting of ICAR-Indian Institute of Spices Research, Kozhikode, Kerala during 22<sup>nd</sup> – 23<sup>rd</sup> November 2023.
- Dr. P.K. Nema, Professor, was a Jury member for the Poster Evaluation in IFCON-2023 at CFTRI Mysuru during 7<sup>th</sup> to 10<sup>th</sup> December 2023.
- Dr. P.K. Nema, Professor, attended Central Executive Committee meeting as Vice President of AFSTI at Mysuru on 6<sup>th</sup> December 2023.
- Dr. P.K. Nema, Professor, attended Board of Studies meeting for MIT Pune on 16<sup>th</sup> December 2023
- Dr. Murlidhar Meghwal, Assistant Professor, visited as member of Inter Departmental Panel for assessment for renewal of approval M/s. Ananda Dairy Limited, Hapur on 15<sup>th</sup> December 2023.
- Dr Murlidhar Meghwal, Assistant Professor, visited as member of Inter Departmental Panel for approval of Honey Processing Establishment of M/s. Himsattva Harvest Pvt. Ltd., Roorkee, Haridwar, Uttarakhand, on 16<sup>th</sup> December 2023.
- Dr. S Thangalakshmi, Associate Professor (FE) attended UGC approved 6-days Short Term Programme on 'ICT Skills for Educational and Research Workspace' held from 11<sup>th</sup> to 16<sup>th</sup> December 2023.



## International Visits

- Dr. Harinder Singh Oberoi, Director, NIFTEM-K attended the 46<sup>th</sup> meeting of the Codex Alimentarius Commission held at FAO HQs at Rome from November 27<sup>th</sup> to 2<sup>nd</sup> December 2023. Dr. Oberoi was a member of the Indian delegation led by Sh. G Kamala Vardhana Rao, CEO, FSSAI. India's proposal for setting up group standards for millets was accepted by the Commission and India's initiative for establishing global standards for millets was acknowledged by the Commission and supported by the member countries. India has been unanimously elected as a member representing Asian region in the Executive Committee of Codex Alimentarius Commission (CAC)
- Dr. Harinder Singh Oberoi, Director visited the German Federal Institute of Risk Assessment (BFR) and The Federal Office of Consumer Protection and Food Safety (BVL) in Berlin on 1<sup>st</sup> December 2023 for possible collaborations in R&D in food safety and development of novel products and their safety assessment.
- Dr. Chakkaravarthi Saravanan, Assistant Professor, Department of Basic and Applied Sciences visited the Faculty of Agro Food Industries, Prince of Songkla University, Hat Yai, Thailand from 6<sup>th</sup> to 15<sup>th</sup> December 2023 for an international collaborative project on 'Comparative study on gut fermentation of Thai-Indian pigmented rice in three-stage colon model'.
- Dr. Kalyan Das, Professor, Department of Basic and Applied Sciences attended and presented an invited talk on "Time lag prey predator model with Allee effect" in conference on 'Delay Differential Equations and Applications to Immunology and Infectious Diseases (DDEs-AIID)' from 23<sup>rd</sup> to 24<sup>th</sup> November, 2023 at UAE University, Al-Ain, UAE.



## *Papers Presented in Conference/Seminar/Symposia*

- Dr. Kumar Rahul, Assistant Professor (BAS) presented oral paper entitled 'Machine Learning and its Application in Food Safety' in 2nd International Conference on Advances in Data Driven Computing and Intelligent Systems (ADCIS 2023) on 21<sup>st</sup> September, 2023 organised by BITS Pilani, Goa Campus.
- Dr. Prarabdh C. Badgujar, Assistant Professor (FST) delivered oral presentation on the topic 'Assessment of Safety and Immunostimulatory Properties of Phytase-Producing *Limosilactobacillus fermentum* Isolated from Millet-Based Fermented Food in Mice' in 11<sup>th</sup> International Conference of Laboratory Animal Scientists Association (LASA) India held from 7<sup>th</sup> to 8<sup>th</sup> October 2023 at Indian Institute of Sciences, Bangalore.
- Dr. Kumar Rahul, Assistant Professor (BAS) presented oral paper entitled 'Artificial Intelligence Impact Through Image Processing in The Food Industry: A Review' in 5<sup>th</sup> International Conference on Sustainable and Innovative Solutions for Current Challenges in Engineering and Technology (ICSISCET 2023) on 21<sup>st</sup> October 2023 organized by Madhav Institute of Technology and Science (MITS), Gwalior.
- Dr. Sunil Pareek, Professor (AES) delivered lead lecture on 'Strategies to alleviate postharvest chilling injury in citrus fruit' during 'Asian Citrus Congress – Advancing Citriculture for Agro-Economic Prosperity' organized by the Indian Society of Citriculture at ICAR-National Citrus Research Institute, Nagpur from 28<sup>th</sup> to 29<sup>th</sup> October, 2023.
- Dr. Sunil Pareek, Professor (AES), delivered keynote talk on 'Melatonin: A biomolecule for mitigating postharvest chilling injury in fruits' during 10<sup>th</sup> Indian Horticulture Congress-2023 on 08<sup>th</sup> November 2023 organized by the Indian Academy of Horticultural Sciences at Assam Agricultural University, Guwahati.
- Dr. Sunil Pareek, Professor (AES) delivered keynote talk on 'Next generation processing technologies for utilization of millets' in National Symposium on “Way forward for R&D in Pulses, Oilseeds and Millets in Central India” during 19<sup>th</sup> to 21<sup>st</sup> November organized by Rani Laxmi Bai Central Agriculture University, Jhansi.
- Dr. Prarabdh C. Badgujar, Assistant Professor (FST) delivered oral presentation on the topic 'Nanocurcumin Functionalized Cream Powder Formulated Using Microfluidization and Spray Drying has Bioavailable Curcumin, Anti-cancer Activity, No Cytotoxicity and is Sensorially Acceptable” in International Conference on “New Horizons in Biotechnology” from 26<sup>th</sup> to 29<sup>th</sup> November, 2023 at CSIR-NIIST, Thiruvananthapuram.
- Dr. P. Murali Krishna, Professor (BAS), delivered lead lecture on 'Exploration of nanotechnology in agro-ecosystems and rapid sensor development' on 16<sup>th</sup> December 2023 at the International conference on “Frontiers in Tobacco and Commercial Agriculture Towards Preparedness for Future Farming” organised by ICAR-Central Tobacco Research Institute, Rajahmundry, Andhra Pradesh.
- Dr. Murlidhar Meghwal, Assistant Professor (FST), was keynote speaker at International Conference 'FOODS 2023- Resurgence of Millets for Food Security and Sustainability' held on during 14<sup>th</sup> to 15<sup>th</sup> December 2023 at M.O.P. Vaishnav College for Women, Chennai.
- Dr. Bhim Pratap Singh, Professor (AES), delivered a lead talk on 'Post harvest interventions and value addition in turmeric' on 15<sup>th</sup> December, 2023 during International conference on 'Frontiers in Tobacco and Commercial Agriculture towards Preparedness for Future Farming' organized by ICAR-National Institute for Research on Commercial Agriculture, Rajahmundry, Andhra Pradesh.

- Dr. Neeraj Kumar, Assistant Professor presented a paper 'Characterization of Ni-Al<sub>2</sub>O<sub>3</sub> composite coatings in an electrolytic bath at various concentrations' at the 3<sup>rd</sup> International Conference on Materials Science & Engineering (ICMSE-2023) November 23<sup>rd</sup> to 25<sup>th</sup>, 2023 at NITJ.

## Invited Lectures

- Dr. Ashutosh Upadhyay, Professor (FST), delivered invited lecture entitled 'Sustainable approaches in food processing, fruit coatings and packaging' during one-week advance training program on 'New Horizons in Food and Biotechnology for Sustainable Development' at Amity University, Rajasthan.
- Dr. Sunil Pareek, Professor (AES), delivered lecture on 'Postharvest and quality control of natural farm produce' in two weeks national training programme on 'Natural farming: Present status and future prospects' on 7<sup>th</sup> September 2023 organized by Maharana Pratap University of Agriculture and Technology, Udaipur.
- Dr. Sunil Pareek, Professor (AES), delivered lecture on 'Food processing, postharvest, value addition, and value chain management' in two weeks training programme on 'Natural farming: Present status and future prospects' on 16<sup>th</sup> September 2023 organized by GB Pant University of Agriculture and Technology, Pantnagar.
- Dr. Prarabdh C. Badgajar, Assistant Professor (FST) delivered invited lecture entitled 'Overview of FSSAI's nutraceuticals regulation: Speciality foods containing plant and botanicals' during weekly lecture series Poshan Maah celebrations 2023 organized by All India Institute of Ayurveda (AIIA), New Delhi on 29<sup>th</sup> September 2023.
- Dr. Sapna Arora, Associate Professor (FBMED) delivered a lecture on 'Entrepreneurial risk' for the trainees under Credit Linked Individual Beneficiaries of PMFME Scheme on 9<sup>th</sup> October 2023, organized by ICAR-Central Coastal Agricultural Research Institute.
- Dr. Prasanna Kumar G.V., Professor (AES), delivered an online lecture on 'Energy audit and carbon footprint in food processing industries' on 12<sup>th</sup> October 2023 to the students and faculty members of the Gani Khan Chaudhury Institute of Engineering and Technology, Malda, West Bengal.
- Dr. Sunil Pareek, Professor (AES) was a resource person in 'Workshop on Community Based Sustainable Agriculture' organised by National Productivity Secretariat, Sri Lanka, and Asian Productivity Organization Secretariat, Japan from 28<sup>th</sup> to 30<sup>th</sup> November 2023.
- Dr. Chakkaravarthi Saravanan, Assistant Professor (BAS), delivered a lecture entitled 'Nanoencapsulation of eggplant peel extract to enhance the oxidative stability of soybean oil' to the Faculty of Agro Food Industries, Prince of Songkla University, Hat Yai, Thailand on 7<sup>th</sup> December 2023.
- Dr. Sapna Arora, Associate Professor (FBMED) delivered a lecture on 'Skill building in agri processing techniques' under the MDP 'Empowering rural women entrepreneurship through MDP' on 12<sup>th</sup> December 2023, organised by MANAGE-Hyderabad.

## Publications/Transfer of Technology/Copyright

### Scopus Indexed Research & Review Papers

1. Akter, S., Biswas, M.H.A., Srinivas, M.N., & Das, K. 2024. Mathematical model analysis of diabetes for glucose-insulin interaction in human body. *Journal of Discontinuity, Nonlinearity, and Complexity*, 13(1), 173-188.
2. Bodana, V., Swer, T.L., Kumar, N., Singh, A., Samtiya, M., Sari, T.P., & Babar, O.A. 2023. Development and characterization of pomegranate peel extract- functionalized jackfruit seed starch-based edible films and coatings for prolonging the shelf life of white grapes. *International Journal of Biological Macromolecules*, 254, 127234.
3. Desai, S., Sharanagat, V.S., & Nema, P.K. 2023. Dielectric roasting induced physical, mechanical, and grinding characteristics of black pepper (*Piper nigrum*). *Journal of Food Processing and Preservation*. 9052417.
4. Desai, S., Upadhyay, S., Sharanagat, V. & Nema, P.K. 2023. Physico-functional and quality attributes of microwave-roasted black pepper (*Piper nigrum L.*). *International Journal of Food Engineering*. <https://doi.org/10.1515/ijfe-2023-0207>
5. Dhiman, A., Chopra, R., Singh, P.K., Homroy, S., Chand, M., & Talwar, B. 2023. Amelioration of nutritional properties of bakery fat using omega-3 fatty acid-rich edible oils: a review. *Journal of the Science of Food and Agriculture*. <https://doi.org/10.1002/jsfa.13225>.
6. Dhiman, N.K., Reddy, M.S., & Agnihotri, S. 2023. Graphene oxide reinforced chitosan/polyvinyl alcohol antibacterial coatings on stainless steel surfaces exhibit superior bioactivity without human cell cytotoxicity. *Colloids and Surfaces B: Biointerfaces*, 227, 113362.
7. Dhyani, A., Chopra, R., Singh, P.K., & Garg, M. 2023. Palm olein and perilla seed oil blends for the improvement of nutritional and thermal stability. *Grasas Aceites*, 74(2), e511.
8. Ganeshkumar, C., Singh, N.K., Mor, R.S., & Panghal, A. 2023. Investigating the adoption barriers to industry 4.0 technologies in farmer producer organisations. *International Journal of Global Business and Competitiveness*. <https://doi.org/10.1007/s42943-023-00083-1> (ABDC).
9. Garg, A., Chauhan, A., Agnihotri, C., Singh, B.P., Mondem, V., Basu, S., & Agnihotri, S. 2023. Sunlight active cellulose/g-C<sub>3</sub>N<sub>4</sub>/TiO<sub>2</sub> nano-photocatalyst for simultaneous degradation of methylene blue dye and atenolol drug in real wastewater. *Nanotechnology*, 34, 505705.
10. Goel, R., Arora, S., Rayaapa, M.K., & Gulia, D. 2023. Hemp and Marijuana are both pots? Young consumer awareness and Perception of hemp food in NCR, India. *Journal of Agriculture and Food Research*, 14, 100809.
11. Goyal, S.P., Maurya, R., Mishra, V., Kondepudi, K.K., & Saravanan, C. 2024. Ameliorative potential of synbiotic combination of Lactobacillus sp. and polyphenols against Benzo[a]pyrene-induced toxicity in Caco-2 cell line. *Chemosphere*, 349, 140891.
12. Gulia, D., Kumar, S., & Arora, S. 2023. Bibliometric analysis and science mapping of business incubators. *Journal of Knowledge Economics*. <https://doi.org/10.1007/s13132-023-01618-w>.
13. Hasnida Raja Hashim, R., Anas Nagoor Gunny, A., Ting, S.S., Gopinath, S.C.B., Fong, Y.Y., Pareek, S., Makhtar, M.M.Z., & Shukor, H. 2023. Fabrication of active food packaging based on PLA/Chitosan/CNC-containing Coleus aromaticus

- essential oil: application to Harumanis mango. *Journal of Food Measurement and Characterization*, 17(6), 6341-6349.
14. Heena, Kumar, N., Singh, R., Upadhyay, A., & Giri, B.S. 2023. Application and functional properties of millet starch: Wet milling extraction process and different modification approaches. *Heliyon* (Accepted)
  15. Hegde, S.R., Thangalakshmi, S., & Singh, R. 2023. A review of gluten and sorghum as a gluten free substitute. *Trends in Horticulture*, 6(2). doi: 10.24294/th.v6i2.2840.
  16. Homroy, S., Chopra, R., Singh, P.K., Dhiman, A., Chand, M., & Talwar, B. 2023. Role of encapsulation on the bioavailability of omega-3 fatty acids. *Comprehensive Reviews in Food Science and Food Safety*, 1–34. <https://doi.org/10.1111/1541-4337.13272>.
  17. Jatav, J., Chinchkar, A.V., & Bhattacharya, B. 2023. Chitosan film with pineapple peel extract in the extension of shelf life of Indian cottage cheese: Release kinetics and bio-accessibility studies. *Food Research International*, 174(9), 113580.
  18. Kishore, A., Patil, R., Singh, A., & Pati, K. 2023. Jicama (*Pachyrhizus* spp.) a Nonconventional Starch: A review on isolation, composition, structure, properties, modifications and its application. *International Journal of Biological Macromolecules*, 258, 129095.
  19. Kishore, A., Singh, A., Sharanagat, V.S., & Pati, K. 2023. Structural, thermo-functional, and rheological properties of dielectric modified underutilized Jicama (*Pachyrhizus* spp.). *Starch Stärke*, 2300167.
  20. Koraqi, H., Petkoska, A.T., Khalid, W., Kumar, N., & Pareek, S. 2023. Optimization of experimental conditions for bioactive compounds recovery from raspberry fruits (*Rubus idaeus* L.) by using combinations of ultrasound-assisted extraction and deep eutectic solvents. *Applied Food Research*, 3(2), 100346.
  21. Kumar, N., Upadhyay, A., Shukla, S., Bajpai, V.K., Kieliszek, M., Yadav, A., & Kumaravel, V. 2023. Next generation edible nanoformulations for improving postharvest shelf life of citrus fruits. *Food Measurement*. <https://doi.org/10.1007/s11694-023-02287-8>
  22. Kumar, R., Kamboj, A., Singh, R., & Chopra, R. 2023. Effect of microwave treatment on the alkaline extraction of proteins and phenolics from perilla seed meal in varying pH conditions: An optimization study using multicomponent analysis. *Journal of Microwave Power and Electromagnetic Energy*, 57(4), 306- 329.
  23. Kumar, V., Taneja, N.K., Kumar, S., Vashist, A., Ahire, J.J., Mishra, V., & Gill, S.R. 2023. Complete genome sequence of *Lactiplantibacillus plantarum* BBC32B isolated from human feces sample. *Microbiology Resource Announcements*, 12(11), 2576-098X.
  24. Lekhwar, C., Singh, S., Prabhakar, P.K., Meghwal, M., & Giuffrè, A.M. 2023. Bioactive compounds of fennel seeds: Current status on composition, bio-functional properties, use of novel technologies for the extraction of its essential oil, and its application in food. *Current Research in Nutrition and Food Science* (Accepted).
  25. Mishra, S., Singh, R., Upadhyay, A., Mishra, S., & Shukla, S. 2023. Emerging trends in processing for cereal and legume-based beverages: A review. *Future Foods*, 8, 100257.
  26. Panghal, A., Akhila, P., Vern, P., & Mor, R.S. 2023. Adoption barriers to green logistics in the Indian food industry: A circular economy perspective. *International Social Science Journal*. <https://doi.org/10.1111/issj.12466>.
  27. Panghal, A., Dahiya, S., Sindhu, S., Siwach, P., & Dahiya, B. 2023. Strategic business model canvassing for terracotta

- pottery entrepreneurs in India. *International Journal of Entrepreneurship and Small Business*, 50(3), 407-432.
28. Panghal, A., Pan, S., Vern, P., Mor, R.S., & Jagtap, S. 2023. Blockchain technology for enhancing sustainable food systems: A consumer perspective. *International Journal of Food Science & Technology*. <https://doi.org/10.1111/ijfs.16835>.
  29. Rathee, S., Ojha, A., Singh, K.R., Arora, V.K., Prabhakar, P.K., Agnihotri, S., Chauhan, K., Singh, J., & Shukla, S. 2023. Revolutionizing goat milk gels: A central composite design approach for synthesizing ascorbic acid-functionalized iron oxide nanoparticles decorated alginate-chitosan nanoparticles fortified smart gels. *Heliyon*, 9(9). DOI: 10.1016/j.heliyon.2023.e19890.
  30. Sahil, Madhumita, M., & Prabhakar, P.K. 2023. Effect of dynamic high-pressure treatments on the multi-level structure of starch macromolecule and their techno- functional properties: A review. *International Journal of Biological Macromolecules* (Accepted)
  31. Saikh, A., Das, K., & Gazi, N.H. 2023. A cancer model study to see the dynamical effect of a therapeutic approach through virus injecting. *Journal of Applied Nonlinear Dynamics*, 12(4), 739-756.
  32. Saikumar, A., Singh, A., Shubhangi, & Kumar, S. 2023. A review on the impact of physical, chemical and novel treatments on the quality and microbial safety of fruits and vegetables. *Journal of System Microbiology and Biomanufacturing*. <https://doi.org/10.1007/s43393-023-00217-9> 2023
  33. Sati, H., Chinchkar, A.V., Kataria, P., & Pareek, S. 2023. Melatonin: A potential abiotic stress regulator. *Plant Stress*, 10293.
  34. Sati, H., Kataria, P., Chinchkar, A.V., & Pareek, S. 2023. Melatonin: A biomolecule for mitigating postharvest chilling injury in fruits and vegetables. *Crop Science*, 63(6), 3175-3197.
  35. Sejwar, H., Singh, A., Kumar, N., Srivastava, S., Upadhyay, A., & Dar, A.H. 2024. Effect of ultrasonication on the properties of carnauba wax-based soybean oleogel. *Applied Acoustics*, 216. <https://doi.org/10.1016/j.apacoust.2023.109729>
  36. Sharma, A., Kumar, R., Kumar, N., & Saxena, V. 2023. Machine learning driven portable Vis-SWNIR spectrophotometer for non-destructive classification of raw tomatoes based on lycopene content. *Vibrational Spectroscopy*, 130, 103628.
  37. Sharma, A., Kumar, R., Kumar, N., Kaur, K., Saxena, V., & Ghosh, P. 2023. Chemometrics driven portable Vis-SWNIR spectrometer for non-destructive quality evaluation of raw tomatoes. *Chemometrics and Intelligent Laboratory Systems*, 242, 105001.
  38. Sid, S., Alam, M., Islam, M., Kumar, Y., Mor, R.S., & Kishore, A. 2023. Characterization and quality attributes of spray-dried Kinnnow peel powder using maltodextrin and gum arabic. *Journal of Food Process Engineering*, 46(12), e14488.
  39. Singh, H., Singh, R., Kumar, N., Kaur, B.P., & Upadhyay, A. 2023. Effects of wet-milling extraction methods on nutritional, functional, and structural properties of Barnyard millet starch. *Starch - Stärke*. <https://doi.org/10.1002/star.20230013>
  40. Singh, P.K., Chopra, R., Dhiman, A., Chuahan, K., & Garg, M. 2023. Development of omega-3 rich structured lipids using perilla seed oil and palm olein: Optimization and characterization. *Biomass Conversion and Biorefinery*. <https://doi.org/10.1007/s13399-023-04422>
  41. Singh, P.K., Chopra, R., & Garg, M. 2023. Comparative study on the use of rosemary bioactive for enhancing the oxidative stability of blended perilla seed oil: A multivariant kinetic approach. *Food Chemistry Advances*, 3, 100447.
  42. Tapas, Singh, A., Sari, T.P., & Gupta, R. 2023. Microwave-assisted enzymatic hydrolysis: A sustainable approach for

enhanced structural and functional properties of broken rice protein. *Journal of Process Biochemistry*.  
<https://doi.org/10.1016/j.procbio.2023.12.001>

43. Thiruvalluvan, M., Kaur, B.P., Singh, A., & Kumari, S. 2023. Enhancement of the bioavailability of phenolic compounds from fruit and vegetable waste by liposomal nanocarriers. *Journal of Food Science and Biotechnology*.  
<https://doi.org/10.1007/s10068-023-01458-z>
44. Verma, A., Tiwari, H., Singh, S., Gupta, P., Rai, N., Singh, S.K., Singh, B.P., Rao, S., & Gautam, V. 2023. Epigenetic manipulation for secondary metabolite activation in endophytic fungi: current progress and future directions. *Mycology: An International Journal of Fungal Biology*. <https://doi.org/10.1080/21501203.2023.2241486>.
45. Yadav S., & Mishra, S. 2023. Modeling and optimization of spray drying process parameters using artificial neural network and genetic algorithm for the production of probiotic (*Lactiplantibacillus plantarum*) finger millet milk powder. *Journal of Food Process Engineering*, e14505.
46. Zomuansangi, R., Lalbiakluangi, C., Gupt, V.K., Medders, A.A., Vidal, J.E., Singh, B.P., Song, J.J., Singh, P.K., Singh, A., Vellingiri, B., Iyer, M., & Yadav, M.K. 2023. Interaction of bacteria and inhalable particulate matter in respiratory infectious diseases caused by bacteria. *Atmospheric Pollution Research*, 15(5), 102012.

### Edited Books

1. Kumar, K., Ganorkar, P.M., and Sharanagat, V.S. (Eds.). 2023. Food Packaging-Principles and Applications. New India Publishing Agency, New Delhi, India
2. Oberoi, H.S., and Chauhan, K. 2023. Millet Marvels: A Sustainable Food Renaissance. New India Publishing Agency, New Delhi, India.
3. Radhakrishnen, E.K., Josh, A., and Pareek, S. (Eds.). 2023. Postharvest Nanotechnology for Fresh Horticultural Produce: Innovations and Applications. CRC Press, USA.
4. Singh, B.P., Agnihotri, S., Singh, G., and Gupta, V.K. (Eds.). 2023. Postharvest Management of Fresh Produce: Recent Advances. Elsevier Academic Press, USA.

### Transfer of Technology/ Copyright

1. Dr Komal Chauhan Professor (FST) and Dr. Anupama Singh, Professor (FE) transferred 21 technologies (millet based baked and extruded products) to Interlink Foods Pvt Ltd, Jharkhand and One Life Foundation Pvt Ltd, New Delhi.
2. Er Anand Kishore, Assistant Professor (FE) transferred technology for millet based multi grain cookies to Ninsa Food Industries Pvt Ltd, New Delhi.
3. Er Anand Kishore, Assistant Professor (FE) transferred technology for Gluten free cookies to Freak Eat Food Pvt Ltd, Sonapat.
4. Copyright for '3D Printing of Pidi Kollukatti' was granted to Dr Thangalaxmi, Associate Professor (FE).
5. Copyright of Aroma Wheel was granted to Dr Vijay Kumar, Associate Professor (BAS).

## Miscellaneous

### Memorandum of Understandings

- Letter of Intent was signed between HDFC Bank Ltd. and NIFTEM during WFI for execution of sponsored incubation program.
- A Memorandum of Understanding (MoU) was signed between Department of Women and Child Development, Government of Haryana and NTIBIF for execution of Panjiri Plant project.



### Purchase / Transfer of Equipments

- Bomb Calorimeter: Rs. 18,00,000 INR
- LC-MSMS: 1,78,48,167 INR
- Grain Milling and Bakery Processing Line from Bhatinda center of NIFTEM Thanjavur has been shifted to NIFTEM-K, Regional Centre, Hajipur in October, 2023

### New Joining

Seven Assistant Professors (contractual) joined NIFTEM-K

- Dr. Shelly, Assistant Professor, Marketing joined FBM&ED Department on 06.10.2023.
- Ms. Rashim Kumari, Assistant Professor, joined FST Department on 12.10.2023.
- Mr. Vikash, Assistant Professor (Marketing) joined FBM&ED Department on 16.10.2023.
- Dr. Sonia Mann, Centre Manager, joined CEFF on 30.10.2023.
- Dr. Sheikh Mudasir, Medical Officer, joined NIFTEM on 01.11.2023.
- Dr. Pooja Dabas, Assistant Professor (Microbiology) joined BAS Department on 02.11.2023.
- Ms. Sonalee Chauhan, Assistant Professor (Agri-business) joined FBM&ED Department on 04.12.2023.

### Superannuation

- Dr. Neela Emanuel, Professor, Department of Basic and Applied Sciences, superannuated on 30<sup>th</sup> September 2023
- Dr. Joginder Singh Rana, Registrar (Deputation) completed his tenure on 31<sup>st</sup> December 2023, and was repatriated back to his parent organization.

#### **Edited by Publication Committee Members**

- Dr. Sunil Pareek- Chairman
- Dr. Sapna Arora
- Dr. Vinkel K. Arora
- Dr. Bhaswati Bhattacharya
- Dr. Prarabdh C. Badgujar
- Dr. Shekhar Agnihotri

#### **Published by**

Dr. H.S. Oberoi  
Director, NIFTEM Kundli

#### **Publication No.**

NIFTEM/NL/001/Sep. – Dec. 2023



# Media Coverage

### अमर उजाला

## सोनीपत

विद्यार्थियों के विद्यार्थियों के लिए प्रशिक्षण का आयोजन

### विद्यार्थियों के लिए इंटरशिप प्रशिक्षण

सोनीपत, 26 नवंबर (एनटी) - राष्ट्रीय खाद्य प्रौद्योगिकी उद्यमिता और प्रबंधन संस्थान (निफ्टेम) कुड्डली और एचडीएससी बैंक की सहयोग से सोनीपत में इंटरशिप प्रशिक्षण का आयोजन किया गया। इस अवसर पर निफ्टेम के अध्यक्ष प्रो. अशोक कुमार सिंह और एचडीएससी बैंक के अध्यक्ष डॉ. अशोक कुमार सिंह ने संबोधित किया।

### जगदल सिति

## सोनीपत

आंध्र प्रदेश के विद्यार्थियों सोनीपत में सीखेंगे फूड प्रोसेसिंग के गुर

सोनीपत, 26 नवंबर (एनटी) - आंध्र प्रदेश के विद्यार्थियों को सोनीपत में फूड प्रोसेसिंग के गुर सिखाने के लिए एक प्रशिक्षण कार्यक्रम का आयोजन किया गया। इस अवसर पर निफ्टेम के अध्यक्ष प्रो. अशोक कुमार सिंह और आंध्र प्रदेश के विद्यार्थियों के प्रतिनिधियों ने संबोधित किया।

### सोनीपत

## 'एथलीटों के लिए विकसित की श्रीअन्न आधारित खुराक'

सोनीपत, 26 नवंबर (एनटी) - सोनीपत में एथलीटों के लिए विकसित की गई श्रीअन्न आधारित खुराक का शुभारंभ किया गया। इस अवसर पर निफ्टेम के अध्यक्ष प्रो. अशोक कुमार सिंह और एथलीटों के प्रतिनिधियों ने संबोधित किया।

### सोनीपत भास्कर

## खाद्य प्रसंस्करण क्षेत्र में उद्यमशीलता को बढ़ावा देने के लिए किया एमप्रोयू सोनीपत

सोनीपत, 26 नवंबर (एनटी) - राष्ट्रीय खाद्य प्रौद्योगिकी उद्यमिता और प्रबंधन संस्थान (निफ्टेम) कुड्डली और एचडीएससी बैंक द्वारा एमप्रोयू पर हस्ताक्षर किए गए हैं। इस समझौते से निफ्टेम को खाद्य प्रसंस्करण और संबद्ध क्षेत्रों में नवाचारों और उद्यमिता का पोषण करने में मदद मिलेगी। इसमें उद्योग, खाद्य और संबद्ध क्षेत्रों से जुड़े स्टार्टअप को आगे बढ़ाने के लिए सस्कर, कोर्पोरेट, वेंचर फंड इनक्यूबेटर और एक्सेलेरेटर के सह सहायता मिलेगी। निफ्टेम के निदेशक डॉ. हरिंदर सिंह ओशरी और एचडीएससी बैंक की तरफ से रणनीतिक समझे और बैंड सस्कर व्यवस्था प्रमुख हरमनजीत सिंह खन्ना द्वारा खाद्य प्रसंस्करण उद्योग में नवाचार संचयन अर्थात् प्रयोग और खाद्य प्रसंस्करण उद्योग में नवाचार के अग्र संचयन मिशन का आयोजन करने की उद्देश्य से समझौते ज्ञापन पर हस्ताक्षर किए गए।

### सोनीपत केसरी

## निफ्टेम के अधिकारियों और कर्मचारियों ने ली संविधान की शपथ

सोनीपत, 26 नवंबर (एनटी) - निफ्टेम के अधिकारियों और कर्मचारियों ने संविधान की शपथ ली। इस अवसर पर निफ्टेम के अध्यक्ष प्रो. अशोक कुमार सिंह ने संबोधित किया।

### हरिभूमि

## निफ्टेम देगा गोरखपुर के बच्चों का श्रीअन्न युक्त मीड-डे-मील

गोरखपुर, 26 नवंबर (एनटी) - निफ्टेम देगा गोरखपुर के बच्चों का श्रीअन्न युक्त मीड-डे-मील का शुभारंभ किया गया। इस अवसर पर निफ्टेम के अध्यक्ष प्रो. अशोक कुमार सिंह और गोरखपुर के विद्यार्थियों ने संबोधित किया।

### राष्ट्रीय एकता के लिए लगाई दौड़

सोनीपत, 26 नवंबर (एनटी) - राष्ट्रीय एकता के लिए लगाई दौड़ का शुभारंभ किया गया। इस अवसर पर निफ्टेम के अध्यक्ष प्रो. अशोक कुमार सिंह ने संबोधित किया।

### सोनीपत केसरी

## कार्यशाला में खाद्य सुरक्षा के सिद्धांतों और गुणवत्ता नियंत्रण पर हुई चर्चा

सोनीपत, 26 नवंबर (एनटी) - कार्यशाला में खाद्य सुरक्षा के सिद्धांतों और गुणवत्ता नियंत्रण पर चर्चा हुई। इस अवसर पर निफ्टेम के अध्यक्ष प्रो. अशोक कुमार सिंह ने संबोधित किया।

### सोनीपत

## पंचकुला व कैथल में पंजीरी प्लांट लगेगा

पंचकुला, 26 नवंबर (एनटी) - पंचकुला व कैथल में पंजीरी प्लांट लगेगा का शुभारंभ किया गया। इस अवसर पर निफ्टेम के अध्यक्ष प्रो. अशोक कुमार सिंह ने संबोधित किया।

# हरिश्चन्द्रि सोनीपत भूमि

## तीन दिवसीय अंतरराष्ट्रीय श्रीअन्न सम्मेलन संव्यव

### गरीबों का भोजन कहलाता था मोटा अनाज

सोनीपत में आयोजित अंतरराष्ट्रीय श्रीअन्न सम्मेलन में भाग लेने वाले अनाज विशेषज्ञों ने कहा कि मोटा अनाज गरीबों का भोजन था।



सोनीपत में आयोजित अंतरराष्ट्रीय श्रीअन्न सम्मेलन में भाग लेने वाले अनाज विशेषज्ञों ने कहा कि मोटा अनाज गरीबों का भोजन था।

# सोनीपत भास्कर

## मोटा अनाज को बढ़ावा देने के लिए सरकार कर रही काम : केंद्रीय मंत्री

केंद्रीय मंत्री ने कहा कि सरकार मोटा अनाज को बढ़ावा देने के लिए कई योजनाएं चला रही है।



# अमर उजाला

## मोटा अनाज को बढ़ावा देने के लिए सरकार कर रही काम : केंद्रीय मंत्री

केंद्रीय मंत्री ने कहा कि सरकार मोटा अनाज को बढ़ावा देने के लिए कई योजनाएं चला रही है।



# सोनीपत

## श्रीअन्न सम्मेलन कर रहे हैं हरियाणा कांग्रेस अध्यक्ष : पशुपालि कुमार

हरियाणा कांग्रेस अध्यक्ष पशुपालि कुमार ने कहा कि श्रीअन्न सम्मेलन का आयोजन करना हरियाणा सरकार का दायित्व है।



# सोनीपत केसरी

## मोटे अनाजों को बढ़ावा देने के लिए भारत सरकार ने शुरू की श्रीअन्न योजना : पारस

भारत सरकार ने श्रीअन्न योजना शुरू की है, जिसके अंतर्गत मोटे अनाज को बढ़ावा दिया जाएगा।



# सोनीपत भास्कर

## विदेशी वैज्ञानिकों ने चस्ता मोटे अनाज का स्वाद

विदेशी वैज्ञानिकों ने चस्ता मोटे अनाज का स्वाद का अध्ययन किया है।



# सोनीपत भूमि

## पौधण प्राप्त करने में श्रीअन्न की भूमिका पर सभी एकजुट

पौधण प्राप्त करने में श्रीअन्न की भूमिका पर सभी एकजुट हैं।



# सोनीपत

## निपेटम में मिलेट्स की संभावनाओं और चुनौतियों पर विचार्य मंचन

निपेटम में मिलेट्स की संभावनाओं और चुनौतियों पर विचार्य मंचन आयोजित हुआ।



# अमर उजाला

## विश्व में मोटे अनाज की मांग अधिक : प्रो. सूद

विश्व में मोटे अनाज की मांग अधिक है, प्रो. सूद ने कहा।



# सोनीपत भास्कर

## श्रीअन्न मिनेट्स सम्मेलन में कुकरी रो, रोप ने बनाए स्वादित व्यंजन

श्रीअन्न मिनेट्स सम्मेलन में कुकरी रो, रोप ने बनाए स्वादित व्यंजन।



# अधिस की आवाज

## भारत सरकार ने प्रमुख वैज्ञानिक स्लास्कार ने मिलेट्स पर अत्योजित अंतरराष्ट्रीय सम्मेलन का किया शुभारंभ

भारत सरकार ने प्रमुख वैज्ञानिक स्लास्कार ने मिलेट्स पर अत्योजित अंतरराष्ट्रीय सम्मेलन का किया शुभारंभ।



# दैनिक मीडिया न्यूज लाईन

## केंद्रीय मंत्री पियूष गोयल ने किया निपेटम के मंडप का दौरा

केंद्रीय मंत्री पियूष गोयल ने किया निपेटम के मंडप का दौरा।



# विश्व स्वाथ दिवस पर निपेटम में हुआ सैमिनार, बताया भोजन-पानी का महत्व

विश्व स्वाथ दिवस पर निपेटम में हुआ सैमिनार, बताया भोजन-पानी का महत्व।



# विश्व स्वाथ दिवस पर निपेटम में हुआ सैमिनार, बताया भोजन-पानी का महत्व

विश्व स्वाथ दिवस पर निपेटम में हुआ सैमिनार, बताया भोजन-पानी का महत्व।



# पहले अनाज की कमी समस्या थी, अब जंक फूड स्वास्थ्य के लिए चिंता बन रहा

पहले अनाज की कमी समस्या थी, अब जंक फूड स्वास्थ्य के लिए चिंता बन रहा।



# Academic Courses at NIFTEM Kundli

## **B.Tech: 4 Years Degree Programme in Food Technology and Management (FTM)**

Number of Seats: 200  
Eligibility: 12th pass with valid JEE mains score

## **MBA: 2 Years Regular Degree Programme with Dual Specialization**

Eligibility: Bachelor's Degree in relevant discipline with valid CAT/MAT/CMAT score

## **Ph.D. Degree Programme in the following Departments**

- Agriculture and Environmental Sciences (AES)
- Basic and Applied Science (BAS)
- Food Engineering (FE)
- Food Business Management & Entrepreneurship Development (FBM&ED)
- Food Science & Technology (FST)

Eligibility: Master Degree in relevant discipline with valid score of Research Entrance Examination (RET) conducted by NIFTEM and UGC/CSIR/JRF qualified candidates.

## **M.Tech.: 2 Years Regular Degree Programme in the following Specializations**

- Food Technology and Management (FTM)
- Food Process Engineering and Management (FPEM)
- Food Safety and Quality Management (FSQM)
- Food Supply Chain Management (FSCM)
- Food Plant Operations Management (FPOM)

**Eligibility:** Four Years Bachelor's Degree with valid GATE score and through Non-GATE Entrance Examination only if seats remain vacant after GATE Counseling.





## **National Institute of Food Technology Entrepreneurship and Management (NIFTEM-Kundli)**

(An Institute of National Importance under the Ministry of Food Processing Industries, GoI)

Plot No.97, Sector-56, HSIIDC Industrial Estate, Kundli-131028, Sonapat, Haryana, India

Ph: +0130-2281020 • Website : [www.niftem.ac.in](http://www.niftem.ac.in)