REGISTRATION FORM

One-Week Faculty Development Program on

Recent Advancement in Food Processing and Preservation (FPP 2019)

Name:
Designation:
Department:
Inst./Univ.:
Research Interest:
Highest Qualification:
Years of Experience:
E-mail:
Phone:
Are you from a TEQIP Network Institute: (Yes/No)
Accommodation: (Yes/No)
Signature of the Participant:
Signature of Head of the Dept./Inst
Official Stamp:

The registration fee will be collected by the program committee members after the successful submission of registration form. The registration fee includes FDP kit, lunch and mid-session refreshment. The faculty members are required to produce a valid certification as identity card of the institute while receiving the kit. The filled registration form should be sent to fpp2019hbtu@gmail.com by August 22, 2019.

PATRON

Prof. N. B. Singh Hon'ble Vice-Chancellor HBTU, Kanpur

CHAIRMAN

Prof. Deepak Srivastava

Dean, School of Chemical Technology

HBTU, Kanpur

CO-CHAIRMAN

Dr. Karunakar Singh Professor, Department of Food Technology HBTU, Kanpur

Prof. Alak Kumar Singh Head, Department of Food Technology HBTU, Kanpur

COORDINATOR, TEOIP-III

Prof. Raghuraj Singh
Head, Department of Computer Science & Engineering
HBTU, Kanpur

CONVENER

Dr. Vivek Kumar Asst. Professor, Department of Food Technology HBTU, Kanpur

ORGANIZING SECRETARIES

Mr. Anit Kumar Mr. Ashwani Kumar Mr. Sayyad Abdul Mr. Ajit Kumar Singh Mr. Akshay Kumar Singh Ms. Soumya Rathore

ORGANIZING COMMITTEE MEMBERS

Ms. Rishika Tewari Ms. Arunima Singh





Faculty Development Program
on

Recent Advancement in Food Processing and Preservation (FPP 2019)

Under

TEQIP-III, World Bank Project

August 26-31, 2019

Organized by

Department of Food Technology
Harcourt Butler Technical University
Kanpur



Venue

Seminar Hall
Department of Food Technology
Harcourt Butler Technical University
Kanpur-208002

ABOUT THE UNIVERSITY

Harcourt Butler Technical University, Kanpur (formerly known as Harcourt Butler Technological Institute, Kanpur) was established in 1921 and has a glorious history and has always been in the forefront for technological developments and growth of industries in the country since its inception. The Institute had its decent beginning as Government Technological Institute, Uttar Pradesh in 1921 with Dr. E. R. Watson as its first Principal. The Institute was renamed as Harcourt Butler Technological Institute in 1926 in the honour of name of Sir Spencer Harcourt Butler, the then Governor of U. P. Degree courses in Oil Technology and Chemical Engineering were started in 1954 and thereafter number of undergraduate and post graduate courses were started. On March 26, 1965, it was upgraded from a Government Department status to an autonomous Institution. It was upgraded as Harcourt Butler Technical University, Kanpur on September 01, 2016 by Govt. notification no. 5869(2)/LX/XIX-V-1, 16(Ka)-10-2016 dated Lucknow April 07, 2016 (UP Act no.11 of 2016). University is spread across two campuses - East Campus (77 acres) and West Campus (271 acres) situated approximately 3.5 kilometers apart. The University provides a congenial environment for the holistic growth and all-round development of the students such that they become globally acceptable personalities with excellent communication skills, proper attitudes, aptitudes, problem solving capabilities and to work as a team.

ABOUT THE DEPARTMENT

Department of Food Technology was reestablished as a separate department under the aegis of School of chemical Technology after upgradation of HBTI as HBTU in September 2016. Erstwhile, it was a combined department with Bio-Chemical Engineering and known as Department of Bio-Chemical Engineering and Food Technology, established in 1964. Being one of the oldest departments of the university, it aims to produce man power with high quality scientific skills, broad understanding of fundamentals and innovations in the field of Food Science & Technology, immense knowledge in the areas of specialization, keen interest to stay updated with the technical developments in their specialized areas, ability to solve practical, industrial problems and above all the

capacity to learn continually and interact with the multidisciplinary groups. The department offers four-year B. Tech. and Two-year M. Tech. programs in Food Technology along with a regular and Part time Ph. D. program for the students to develop skills, Knowledge in their respective fields according to the present and future need of society and industry.

ABOUT THE FACULTY DEVELOPMENT PROGRAM

India has evolved from a food-scarce to a food-surplus nation during the last decade and the ever-growing trade in the production of food commodities indicates that the industry is on track in terms of growth and profitability. The Food Processing sector is considering as a sunrise sector and is vital to India's development, primarily due to the linkages and synergies it promotes between the two pillars of our economy - industry and agriculture. The Food processing sector engages approximately 1.85 millionn people in around 39,748 registered units with fixed capital of \$ 32.75 billion and aggregate output of around \$ 158.69 billion.

Yet in India the food processing sector suffers from several bottlenecks leading to an estimated wastage of 25-30 percent of agriculture produce. Realizing the need for improving capacity of the food processing industry, there is urgent need of to use some of novel processing and preservation technologies that may result in economical and improved quality products. Therefore, this Faculty Development Program covers novel and advance aspects of food processing and preservation methods and techniques that can contribute to the development of value-added food products. In addition, the FDP features imperative discussions of emerging technologies in the field of food processing and preservation and their effects on quality and safety of a wide array of foods coupled with consumer demand for healthy and nutritious food.

For Further Information, Please Contact Organizing Committee, "FPP 2019" HBTU Kanpur–208002

E-mail: <u>fpp2019hbtu@gmail.com</u> Phone: +917081300539/+918053152409/+918500721956

THEME

The FDP invites faculty members and academicians from approved IITS/NITs. AICTE Engineering colleges/Institutions and working professionals from Industries/R&D organizations with the background of Food Engineering and Technology/Agricultural Engineering/Biotechnology and allied disciplines. The number of seats are limited to 30 candidates and the registration for the program will be made on the first come first serve basis. Limited number of seats will be given to faculty of AICTE recognized engineering colleges with registration fee, subject to selection, based on the recommendation from head of their parent institution to be a part of the FDP with following thematic areas:

- Food processing technology
- Food preservation technology
- Food quality and assurance
- Food engineering
- Food and nutritional security
- Innovations in food processing
- Advance food preservation techniques

RESOURCE PERSONS

The faculty members from IITs/NITs/Reputed engineering colleges/universities and persons from industry/research organizations will be invited to deliver lectures on the various topics to cover entire spectrum of the FDP's theme.

REGISTRATION FEE

Delegates Category	Fee		
For HBTU Participants	NIL		
For other TEQIP funded Institutions participants	Rs. 5000		
For Non-TEQIP funded institutions participants	Rs. 1000		

ACCOMODATION

The participants have to make their own arrangement for boarding, lodging and transport. However, the limited accommodation is available in the HBTU guest house on first come first serve and paid basis which can be made available to the participants on their personal request. The interested candidate may submit their request in advance.



TEQIP - III Sponsored

One Week Faculty Development Programme (FDP)

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Recent Advancement in Food Processing and Preservation (August 26-31, 2019)



PROGRAM SCHEDULE

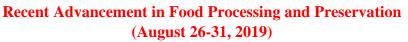
Date/Day	Session I 10:00-11:30 AM	11:30-12:00 PM	Session II 12:00-1:30 PM	1:30-2:30 PM	Session III 2:30-4:00 PM	4:00-4:15 PM	Session IV 4:15-5:30 PM			
26.08.2019 Monday	INAUGURATION & INTRODUCTION TO FDP		Pulsed Light Pasteurization of Fruit Juices (Dr. Snehasis Chakraborty, ICT Mumbai)		Enhancing Nutritional Quality and availability by Biofortification (Sh. Brajesh Singh, HBTU Kanpur)	TEA BREAK	Challenges in Potato Processing (Sh. Avinash Verma, Next-Gen Food Products Pvt. Ltd.)			
27.08.2019 Tuesday	Effect of Protein Interaction on Human Cell (Dr. A K Thakur, IIT Kanpur)	TEA BREAK	Situating Farmers in Global Value Chains (Dr. Rahul Varman, IIT Kanpur)	LUNCH BREAK	Novel Technologies to Improve Bioavailability of Nutraceuticals (Dr. Vivek Kumar, HBTU Kanpur)		Application of Fuzzy Logic in Food Processing (Dr. Yaduvir Singh, HBTU Kanpur)			
28.08.2019 Wednesday	Post-Harvest Technology of Food Grains for Loss Prevention & Value Addition (Dr. A. B. Lal, RBS College Agra)		Ethylene Biology and Fruit Ripening Technology (Dr. Sunil Pareek, NIFTEM Haryana)		Novel Processing Technologies in Starch Modification (Dr. Harinder Singh, MNNIT Allahabad)		Recent Trends in Sugarcane Processing (Dr. Narendra Mohan, NSI Kanpur)			
29.08.2019 Thursday	Qualitative and Quantitative Tools for Food Product Innovation: A Practitioner's Perspective (Dr. Siddhartha Singha, IIT Guwahati)		Application of Probiotics in Non-dairy Foods for Advancing Human Health (Dr. Vasudha Sharma, Jamia Hamdard, New Delhi)		Recent Advancement in Food Analysis (Dr. Poonam Mishra, Tezpur University)		Application of ANN in Food Technology (Dr. Raghuraj Singh, HBTU Kanpur)	Utilization of Whey for Beverage Production (Dr. Alak Kumar Singh, HBTU Kanpur)		
30.08.2019 Friday	High Pressure Processing of Dairy Products (Dr. Ashish Kumar Singh, NDRI Karnal)		Biodegradable Polymer (PHA) in Food Packaging (Dr. Abhishek Dutt Tripathi, BHU Varanasi)		Human Gut Microflora and Probiotics (Dr. Vijendra Mishra, NIFTEM Haryana)		Recent Development in Food Processing (Dr. Karunakar Singh, HBTU Kanpur)	Recent Advancement in Oil Processing (Dr. P.K.S. Yadav, HBTU Kanpur)		
31.08.2019 Saturday	Relevance of Rheology in Food Processing (Dr. D. C. Saxena)	TEST FOR ASSESSMENT	VALEDICTORY FUNCTION							



TEQIP - III Sponsored

One Week Faculty Development Programme (FDP)

on





Programme Report

The Faculty Development Programme (FDP) on "Recent Advancement in Food Processing and Preservation" was organized successfully.at Department of Food Technology, Harcourt Butler Technical University, Kanpur with participation of different stakeholders. This FDP was a one-week programme, during August 26-31, 2019 and sponsored by TEQIP-III under the World Bank.



Dr. Snehasis Chakraborty, Guest of Honour, ICT Mumbai; Dr. P. K. S. Yadav, Associate Dean, School of Chemical Technolgy; Prof. Manoj Kumar Shukla, Registrar, HBTU, Kanpur; Chief Guest, Prof. Karunakar Singh, Pro-Vice Chncellor, HBTU Kanpur, Prof. Raghuraj Singh, Coordinator, TEQIP-III and Dr. Vivek Kumar, Convener, FPP 2019 during release of FDP compendium (from L to R)

The FDP addresses the various aspects of Advances in Food Processing and Preservation and promotes student centric effective teaching-learning pedagogy among the participants. This course was aimed for teachers who are teaching various disciplines of food technology and allied subjects in colleges or Universities. There were 34 number of participants registered for this programme from different Universities and Colleges of members from various nationwide institutes and universities like NIFTEM Haryana, Amity University Noida, MIT Pune, RBS College Agra, CSAUA&T Kanpur, Brahmanand College Kanpur, VSSD Kanpur, DBS College Kanpur and HBTU Kanpur and successfully completed the programme.

Dr. Vivek Kumar, Convener of FDP welcomed chief guest, all the dignitaries and delegates. In his welcome speech, he highlighted the importance and objectives of organizing this faculty development programs. As conceptual understanding of the various research methods, tools and techniques is an essential prerequisite to conduct empirical research in different areas of food technology and allied disciplines. At the same time, one can see that to make industry-oriented experts, academicians must work hard on industry-oriented research and thus, practical learning is as much important as the theoretical learning is, Dr. Kumar said.

Prof. Karunakar Singh, Pro-Vice Chancellor was the chief guest on occasion along with distinguished guest, Dr. Snehasis Chakraborty, Assistant Professor of ICT Mumbai. Prof. Manoj Shukla, Registrar, Prof. Raghuraj Singh, Coordinator, TEQIP-III and Dr. P. K. S. Yadav, Associate Dean, School of Chemical Technology were present as distinguished guest during the inauguration ceremony. In his inaugural address, Prof. Singh stressed upon the paradigm changes from conventional processing of food to modern food processing practices based on global safety and regulations. Addressing the participants, he said that "exploitation of innovative technologies and effective skill transfer are vital ingredients for the changing consumption patterns and food products popularity.

During the inauguration, Prof. Manoj Kumar Shukla, Registrar, HBTU Kanpur graced the inaugural function of the programme and suggested to focus on significance of food processing and preservation along with minimal wastages of foods. While addressing the inauguration session, Prof. Shukla said that "the major challenge for many developing countries like India is in the process that the food undergoes before it reaches the end-consumer". Thus, there is an urgent need of practicing and adopting technology at every stage of food processing to overcome this problem, he added. Prof. Raghuraj Singh, Coordinator, TEQIP-III gave insight regarding various activities and schemes available to enhance the quality of technical education under TEQIP-III. He further added that He emphasized that quality among teachers can be build only through development programs. Associate Dean, Schoolo of Chemical Technology, Dr. P. K. S. Yadav shared his views with the faculty on the theme of the FDP. At the end, the inaugural session was concluded with a vote of thanks given by Dr. Vivek Kumar, Convener of FDP. Dr. Kumar assured the participants that "this FDP aims to provide opportunities to faculty members to enrich their teaching skill and research in the field of food processing and technology".

Resource Persons from reputed academic institutions like IIT Kanpur, IIT Guwahati, ICT Mumbai, BHU Varanasi, MNNIT Allahabad, NDRI Karnal, NIFTEM Haryana, Tezpur University, SLIET Longowal, Jamia Hamdard, New Delhi and NSI Kanpur having expertise in the different relevant areas related to the programme delivered the lectures in this Faculty Development Programme.

In the first technical session of the first day of the programme, Dr. Snehasis Chakraborty, Assistant Professor of ICT Mumbai delivered introductory session during Faculty Development Program on "Pulsed Light Pasteurization of Fruit Juices" and discussed on emerging technologies in the field of food processing and preservation. This session focussed on the relationship between the processing of foods through emerging and novel techniques in order to preserve the quality and nutrition of food products. Further, Dr. Chakraborty added that minimal-processing technologies are modern techniques that provide enough shelf life to foods to allow their distribution, while also meeting the demands of the consumers for convenience and fresh-like quality.

In the next sessions of the day, Prof. Brajesh Singh, HBTU Kanpur addressed the participants on the topic of "Enhancing Nutritional Quality and Availability by Bio-fortification" and discussed the idea

on Biofortification as a feasible and cost-effective means of delivering micronutrients to populations that may have limited access to diverse diets and other micronutrient interventions. Followed by this, Mr. Avinash Kumar Singh, Founder of Next-Gen Foods Pvt. Ltd. As a resource person from industry delivered a lecture on "Challenges in Potato Processing" and discussed on current scenario of potato processing in country. He said that Indian potato processing industry has emerged fast due to economic liberalization coupled with growing urbanization, escalating market options and development of indigenous processing varieties. However, the major challenge facing the industries lies in arranging round the year supply of processing varieties at reasonable price for their uninterrupted operation, he added.



Prof. Brajesh Singh presenting souvenir to Dr. Snehasis Chakraborty, Assistant Professor of ICT Mumbai as Invited Speaker on Day-1 of FPP 2019

In the second day of the programme, Prof. A. K. Thakur from IIT Kanpur delivered a lecture on "Product and Process discoveries in the progression of fundamental protein aggregation research" and Prof. Rahul Varman from IIT Kanpur on "Situating Farmers in Global Value Chains". Prof. A. K. Thakur deliberated on protein aggregation research that focused on aggregate states of protein. He said that, "Protein based food products are arguably the fastest growing sector of the health food industry, including many of the potential treatments for autoimmune diseases and several forms of cancer that are currently in clinical trials". This discussion provided an overview of how and why different aggregated states of proteins occur, how this potentially impacts product quality and performance, fundamental approaches to control aggregate formation, and the practical approaches that are currently used in the industry engaged in development of health foods and nutraceuticals. Both the topic focused on the role of advance processing in the food sector and their effect on consumer's health and food

price. In the afternoon sessions of the day 2, lectures were focused on novel technologies in advancement of food processing and preservation. This session includes the lecture by Dr. Vivek Kumar, HBTU Kanpur on "Novel Technologies to Improve Bioavailability of Nutraceuticals" and "Application of Fuzzy Logic in Food Processing" by Dr. Yaduvir Singh. Addressing the participants, Dr. Kumar said that "bioavailability of a health-promoting nutraceutical is limited by various physicochemical and physiological phenomena and thus there is a need of innovation of new practices to improve the bioavailability of nutraceuticals.



Prof. A. K. Thakur, IIT Kanpur receiving souvenir from Dr. Vivek Kumar, Convener of FDP

Third day of One-Week Faculty Development Programme was introduced with the lecture of Prof. Lal Mani Verma of CSUA&T Kanpur on the topic of "Post-Harvest Technology of Food Grains for Loss Prevention & Value Addition". In this deliberations, Prof. Verma said that Said that regardless of harvesting record levels of production in food grain and horticulture crops, post-harvest losses remain a major challenge in current situation. Thus, there is an urgent need for developing an efficient processing system to minimise the losses to attain the goal of enhancing the income of farmers, he added. Followed by this lecture, Dr. Rohini Dutta, Bio Incubator Manager from IIT Kanpur addressed the participant on the topic of "Incubation & Funding Program" and explained their role in incubation facilities and services to the prospective entrepreneurs and intrapreneurs to convert their innovative ideas into commercially viable products.

In the second session of FDP, Dr. Suneel Parik, Associate Professor from NIFTEM Haryana, delivered the lecture on "Ethylene Biology of Fruit Ripening Technology" and addressed the participant for

efficient management of horticultural produce. Further, he highlighted the concern that non-availability of horticulture raw materials throughout the year is a major concern as a food processing unit required raw materials. During the afternoon session of third day of FDP, Dr. Harinder Singh, Assistant Professor of MNNIT Allahabad discussed on the topic of "Novel Processing Technologies in Starch Modification" and said that Starch is a major carbohydrate easily extractable from various native sources, like potato, maize, corn, wheat, etc, which finds wide application in various food and non-food industries. Followed this lecture, Prof. Narendran Mohan, Director of National Sugar Institute, Kanpur addressed the participants and delivered a lecture on "Recent Trend in Sugarcane Processing". Experts from different organization shared their wisdom and also motivated participants towards societal role.



Prof. Lal Mani Verma of CSUA&T Kanpur receiving Souvenir as Invited Speaker from Prof. Alak Kumar Singh, Head, Department of Food Technology

In the fourth day of the programme, Dr. Siddhartha Singha, Assistant Professor of IIT Guwahati addressed the participant on "Qualitative and Quantitative Tools for Food Product Innovation: A Practitioner Perspective". In this session of Food Product Innovation, Dr. Singha emphasized on the aspect of different practices while going through the food innovation by considering consumers perspective. He said, "new lifestyles, higher incomes and consumer awareness are creating consumer demand for a year-round supply of high-quality, diverse and innovative food products". Addressing the participants of different institutes of nation, he suggested that Food industry innovation strategies need to be based on the total technology in the food system and concerned not only with the technological changes but also with the social and environmental changes, so as to produce food that satisfies the nutritional, personal and social needs and wants of all communities. Followed by this session, Dr. Vasudha Sharma, Assistant Professor of Jamia Hamdard, New Delhi deliberated her lecture on "Application of Probiotics in Non-dairy Foods for Advancing Human Health". Dr. Sharma in her expert lecture on probiotics based on non-dairy foods addressed the participants that due to increasing awareness and health consciousness among today's population, there is an evolving inclination of

counterparts and substitutes for dairy probiotics. However, the allergic reactions connected with the dairy ingredients and lactose intolerance in people has caused in the extensive research and development of non-dairy probiotics.



Dr. Siddhartha Singha, Assistant Professor of IIT Guwahati receiving token of appreciation after insightful lecture on food product innovation from Dr. Vivek Kumar, convener of FPP 2019

Afternoon session of Day 4 of FDP was conducted by Prof. Karunakar Singh, Pro-Vice Chancellor of HBTU Kanpur on pulse processing wherein he shared his views that pulses occupy important and an integral part of the Indian diet and serve as major sources of dietary protein and energy. In his deliberation, Prof. Singh gave insight regarding various novel techniques for processing of food products and appropriate for preservation effectively. He emphasized that quality of food can be enhanced by adopting innovative techniques that focuses on minimal processing and hence maintain the nutrition of processed food products. Followed by this session, Prof. R. K. Trivedi delivered a lecture on "Recent Trends in Oil Processing" and highlighted the emerging techniques that plays a vital role in attributing the quality of oils.

On the fifth day of FDP, Dr. Vijendra Mishra, Associate Professor of NIFTEM, Haryana delivered a lecture on "Human Gut Microflora and Probiotics" and discussed on current trends of probiotic being popular among concerned consumers. He said that "Probiotics may restore the composition of the gut microbiome and introduce beneficial functions to gut microbial communities, resulting in amelioration or prevention of gut inflammation and other intestinal or systemic disease phenotypes". Probiotics are the health enhancing functional food ingredients used therapeutically to prevent diarrhoea, improve

lactose tolerance and modulate immunity and have potential to prevent cancer and lower serum cholesterol levels, he added. Thus, there is an urgent need to focus and explore the potential of health food market for the benefit of society as well as humankind.



Dr. Vasudha Sharma, Assistant Professor, Jamia Hamdard, New Delhi addressing the participants during her expert lecture on probiotics and advancing human health

Followed by this, Dr. Abhishek Dutt Tripathi from BHU Varansi addressed the participant on the topic of "Biodegradable Polymer (PHA) in Food Packaging" and discussed problem arising because of demand of plastics as packaging material causing serious ecological issues due to their resistance to biodegradation. Therefore, there is a need of biodegradable polymers that can be used as a solution to the problems posed by plastics which are degradable in environment. In the next session, Dr. Poonam Mishra, Associate Professor from Tezpur University delivered on "Recent Advances in Food Analyses" and deliberated on new tools for the analysis of foods for exploring the physiochemical and nutritional properties of foods. Moreover, all the resource persons were of repute in their respective fields and the knowledge imparted by them was very useful in their forthcoming academic endeavours.

Final day of One-Week Faculty Development Programme was introduced with the lecture of Dr. D. C. Saxena, Professor of SLIET Longowal, Punjab on the topic of "Relevance of Rheology in Food Processing". Prof. Saxena discussed the significance of rheology during the processing of foods and emphasized on emerging techniques for processing of foods. Addressing the participants, he said that rheological methods are continually evolving to encompass novel technologies and measurement methods that have significant effect on the sensory perception of the food.



Dr. Poonam Mishra, Assistant Professor, Tezpur University receiving Souvenir at FPP 2019

On the valedictory ceremony, Prof. Karunakar Singh, Pro-Vice Chancellor, HBTU Kanpur joined in the valedictory programme as chief guest to distribute the programme completion certificate to the participants, along with Prof. D. C. Saxena, Guest of Honour, Prof. Raghuraj Singh, Coordinator, TEQIP-III, Dr. Deepak Srivastava, Dean, School of Chemical Technology.

Dr. Vivek Kumar, Convener of FDP welcomed Hon'ble Vice Chancellor Prof. N. B. Singh, chief guest of the valedictory ceremony and Dr. D.C. Saxena, Professor, SLIET Longowal as Guest of Honour along with all the dignitaries, delegates and media persons presented on valedictory session. Further, Dr. Vivek Kumar welcomed some of the participants to put forward their feedback of one-week FDP in the valedictory programme.

Hon'ble Vice Chancellor, Prof. N. B. Singh, in his valedictory address, congratulate the Convener of FDP and his team for the successfully organization of the FDP. He also motivated the participants faculties about how to keep continuous interest in the academic and research and inspire students to perform excellent.

At the end, the valedictory session was concluded with a vote of thanks given by Dr. Vivek Kumar, Convener of FDP, in which he has been paid his gratitude towards all the dignitaries who has spared their time and come to share their expertise with the participants. He offered his thanks to participant of different institutions and the media persons for their continuous coverage of the entire programme. Nevertheless, he has given thanks to sponsoring body of this FDP i.e. TEQIP-III with the words, "We

are highly thankful to the TEQIP-III for providing financial assistance to organize this FDP and anticipate that we will find the support in future also for organizing such kind of events."

This FDP emphases on stimulating inquisitiveness in the faculties during the process of acquiring and assimilating new scientific knowledge and concepts, rather than treating participants as a passive recipient of lecture driven classes. The programme delivers the concept of novel idea and integration of teaching-learning process and training in research-based strategies in teaching process. Similarly, the exposure to tools like effective search engines, simulation tools, and scientific approaches of planning and execution of experiments are also delivered in the FDP. More than 60% of the total hours spent in the programme is devoted to the pedagogy sessions, demonstration, simulation tools etc. Participant's feedback also reveals that the programme is perfect blend of technical knowledge on recent advances in food processing and preservation, pedagogy sessions, demonstration and idea exchange among participants.

This Faculty Development Programme (FDP) fulfils its prime objectives to bring the faculties of different food technology and allied disciplines onto one platform to update with the advances in the food processing and preservation, effective teaching learning practices, integration of teaching-research in the teaching-learning process, and scientific approaches of planning and execution of experiments. All the sessions were very much informative. The discussed areas are of great benefit for the participants as the topics match with the current working domain. Participants were enlightened with the most widely used advance technologies in the field of food technology.



Department of Food Technology Harcourt Butler Technical University, Kanpur





Faculty Development Program on Recent Advancement in Food Processing and Preservation (August 26-31, 2019)