



Tezpur University was established by an Act of Parliament in 1994. The objects of this Central University as envisaged in the statutes are that it shall strive to offer employment oriented and interdisciplinary courses to meet the local and regional aspirations and the development needs of the state of Assam and also offer courses and promote research in areas which are of special and direct relevance to the region and in emerging areas in Science and Technology.

**FOOD ENGINEERING & TECHNOLOGY**

The Department of Food Engineering and Technology at Tezpur University is one of the six constituent departments under the School of Engineering. The main objective of the department is to create trained and skilled human resources to cater to the needs of the rapidly growing food processing sector. This department earlier known as Department of Food Processing Technology started in 2006 with the two year M.Sc. programme in Food Processing Technology. The department is currently offering B.Voc, B. Tech, M. Tech and Ph.D programmes. Vision of the department is to create trained and skilled human resources well versed in engineering aspects of food processing to cater the needs of the rapidly growing food processing sector. Mission of the department is to establish itself as the leader in human resource development for supporting the food processing sector, to provide knowledge and skills for better preservation, processing and value addition to agro-products, with the aim of supporting the producers, and to promote research and development for product and process and assurance of high level of hygiene and safety of processed food.

**REGISTRATION**

**TARGET GROUP**



Faculties and scientists from various government or private Colleges/ Institutions/ Universities/ R&D organizations in Food Process Engineering/ Food Technology/ Dairy Technology/ Food Science/ Food and Nutrition/ Agricultural Engineering/ Agriculture/ Fisheries/ Biotechnology/ Bioscience and Bioengineering/ Home Science and allied areas having teaching and research interests in the area of Food Technology. The working professionals from Industries/other organizations with the above specialization.

**SELECTION & REGISTRATION**

The number of participants is limited to 30. The registration fee is ₹1000.00 (One Thousand only) for faculties of Universities and R&D Institutions. For working professionals from Industries or other organizations the registration fee is ₹5000.00 (Five Thousand only). The interested participants can apply on or before 05.11.2017. The selected participants will be intimated through email by 08.11.2017. Selected participants should send the duly filled registration form along with proof of payment on or before 10th November, 2017.

**IMPORTANT DATES**

Last date for receipt of applications	05.11.2017
Confirmation to selected candidates	08.11.2017
Last date for payment of registration fee	10.11.2017
Faculty development program Dates	20 - 24 Nov 2017



TEZPUR UNIVERSITY

**FACULTY DEVELOPMENT PROGRAMME**

On

**Advances in Food Processing Technologies**

20 - 24 November, 2017



AICTE - NEQIP Sponsored

Organized by

Department of Food Engineering & Technology  
Tezpur University, Tezpur  
Assam-784028



TEZPUR UNIVERSITY

## FACULTY DEVELOPMENT PROGRAMME

20-24 November, 2017

### REGISTRATION FORM

To register online visit [goo.gl/uruHxp](http://goo.gl/uruHxp)

Name: Dr/ Mr./ Ms. \_\_\_\_\_

Designation / Dept.: \_\_\_\_\_

Qualification: \_\_\_\_\_

(Degree, Specialization)

Institution Name: \_\_\_\_\_

Years of Teaching Experience: \_\_\_\_\_

Is the Institution approved by AICTE?: Yes / No

Do you want accommodation?: Yes / No

Address for communication: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Phone: \_\_\_\_\_ Mobile: \_\_\_\_\_

Email Id (compulsory): \_\_\_\_\_

#### PAYMENT DETAILS:

Bank : DD. No.:

Place: Date :

Signature of the applicant Signature of Principal / HOD with seal

#### DECLARATION BY THE APPLICANT

The above mentioned information is true to the best of my knowledge and belief. I agree to abide by the rules and regulations governing AICTE-FDP programme. I shall attend the programme for the entire duration.

Signature of the applicant

### ORGANIZING COMMITTEE

#### CHIEF PATRON:

*Prof. M M Sarma, Vice Chancellor, TU*

#### PATRONS:

*Prof D. K. Bhattacharyya, Dean Academic Affairs  
Prof (Ms) C L Mahanta, Dean, SoE*

#### CHAIRMAN:

*Dr. B Srivastava, Head, FET, TU*

#### COORDINATORS:

**Dr Kshirod Kumar Dash**  
*Assistant Professor*

**Dr M K Hazarika**  
*Associate Professor*

*Department of Food Engineering and Technology  
Tezpur University, Assam  
Phone: 03712-275711 / 275706  
E-mail : afpt2017@gmail.com*

### RESOURCE PERSON

*Eminent scientists and researchers from CFTRI, IIT Kharagpur, IIT Guwahati and Tezpur University.*

### HOW TO REACH

*Regular Bus service are available from Guwahati (ISBT) to Tezpur ASTC Bus Station via Nagaon or Mangaldoi. To reach Tezpur University, University Bus Services are available from Tezpur ASTC Bus Station via Paruwa to University Campus*

### ACCOMODATION

*Limited accommodation is available in the university guest house on payment.*



### ABOUT THE PROGRAMME

*A one week programme (40 hours) will be offered under the umbrella theme "Advances in Food Processing Technologies". New developments in Food Technology are crucial for the continued productivity and global competitiveness of the people working for the assurance of food and nutritional security. The course is designed to develop insight and inculcate basic skills and knowledge in advanced techniques of food processing. The aim of the training programme is to offer a glimpse on the recent technical advances in food processing. This will provide a platform to academicians and scientists for discussion and exchange of knowledge and ideas about technological advancements on the recent development in food processing. Efforts will be made to provide demonstrations on some of the advanced techniques in food processing. A visit will be arranged to a tea processing unit of Assam to provide practical exposure to participants.*

### AREA OF FOCUS

*This programme focus on outcome based approach towards food processing sector. The scientific portion of the programme includes lectures and practical sessions on Advances in Food Processing Technologies. The content has been subdivided into the various thematic modules as specified below.*

- 1. Non-Thermal Processing Technologies for Food.*
- 2. Encapsulation Technology in Food.*
- 3. Extrusion Technology.*
- 4. Membrane, Ionic liquid based separations*
- 5. Recent Advances in Dehydration of Foods.*
- 6. Food Product Development: Concept to Consumer.*
- 7. Texture analysis & Rheology of food.*
- 8. New packaging Technologies for the 21st century.*
- 9. Statistical Analysis in Biological/Food systems.*
- 10. Infusion of Food Technology research outcome in curriculum development.*
- 11. Pedagogical strategies in content delivery in Food Technology.*


**Faculty Development Program**  
**Advances in Food Processing Technologies: AFPT-2017**  
**November 20– 24, 2017**

Date	Time	Expert	Topic
<b>20-11-2017</b> <b>Monday</b>	9:15 -10:30 AM	Prof Dhruba K Bhattacharyya, Dean, Academic Affairs, TU.	Technology -led Innovation to address India's Challenges.
	10:30-12:00 PM	Dr S. Bhattacharya, CFTRI & TU.	Rheology and Texture of Foods.
	12:00 - 1:30 PM	Prof C L Mahanta, FET, TU	Food Product Development: From Concept to Consumer.
	2:30 - 3:30 PM	Dr D Mohanta, Physics, TU.	Measurement Techniques for Nanoparticles.
	3:30 - 6:00 PM	Dr S. Bhattacharya, CFTRI & TU.	Practical session on Rheology and Texture of Foods.
<b>21-11-2017</b> <b>Tuesday</b>	9:00 -10:30 AM	Dr Sila Bhattacharya, CFTRI.	Technology of Breakfast cereals.
	10:30-12:00 PM	Prof. S. K. Das, IIT KGP.	Recent Advances in Dehydration of Foods.
	12:00 - 1:30 PM	Prof. M. Das, IIT KGP.	New packaging Technologies for the 21st century.
	2:30 - 3:30 PM	Dr. M. K. Hazarika, TU.	Infusion of Food Technology research outcome in curriculum development.
	3:30 - 6:00 PM	Dr. M. K. Hazarika, TU.	Application of Scilab and Matlab in Food processing.
<b>22-11-2017</b> <b>Wednesday</b>	9:00 - 10:30 AM	Prof M Das, IIT KGP.	New Food Product Design and Development.
	10:30-12:00 PM	Prof S. Bhattacharya, CFTRI & TU.	Extrusion Technology.
	12:00 - 1:30 PM	Prof D. Dutta, Mechanical, TU.	Optimization techniques in Food processing.
	2:30 - 3:30 PM	Prof S. S. Sarkar, MBA, TU.	Pedagogical strategies in content delivery in Food Technology.
	3:30 - 6:00 PM	Dr Kshirod K Dash, FET TU.	Statistical Analysis in Biological/Food system by SPSS.
<b>23-11-2017</b> <b>Thursday</b>	9:00 - 10:30 AM	Industrial.	
	10:30-12:00 PM	Prof M Bhuyan, ECE, TU.	Measurements in Food processing.
	12:00 - 1:30 PM	Prof K Mohanty, IIT Guwahati.	Membrane based separations.
	2:30 - 3:30 PM	Prof K Mohanty, IIT Guwahati	Ionic-liquid based separations.
	3:30 - 5:00 PM	Prof C L Mahanta, FET, TU.	Advanced analytical techniques II, GCMS and AAS.
	5:00 - 6:00 PM	Prof S. Bhattacharya, CFTRI & TU	Encapsulation Technology in Food processing.
<b>24-11-2017</b> <b>Friday</b>	9:00 - 1:30 PM	Industrial visit (Tea-Processing Unit)	Technological aspects of tea factory operation and management
	2:30 - 3:30 PM	Prof S. C. Deka, FET, TU.	Advanced analytical techniques I HPLC
	3:30 - 4:30 PM	Prof S K. Dolui, Chemical Sc. TU	Instrumental methods II.
	4:30 - 5:30 PM		Valedictory



### Name of the Faculties Participated

1	Prof. Aradhita B.Ray
2	Mr. Arun Kumar Choudhary
3	Ms. Ninja Begum
4	Dr. Deboja Sharma
5	Ms. Anasuya Barthakur
6	Dr. Nikhil Kumar Mahnot
7	Dr. Priyanka Borah
8	Mr. Bapan Banik
9	Mr. Purba Prasad Borah
10	Mrs. Mainao Alina Gayary
11	Ms. Monisha Choudhury
12	Dr Stutee Chakravorty
13	Ms. Manisha Medhi
14	Dr. Amit Baran Das
15	Dr. Nishant Rachayya Swami Hulle
16	Dr. Dibyakanta Seth

  
Head  
Department of Food Engg. & Technology  
Tezpur University  
Napam, Tezpur- 784028, Assam



**Completion Report**  
**Faculty Development Program**  
**Advances in Food Processing Technologies (AFPT-2017)**  
**November 20 – 24, 2017**

**Venue: Conference room, Department of Food Engineering and Technology  
Tezpur University**

With the financial support from the NEQIP project of the All India Council for Technical Education (AICTE) supported, the one week faculty development programme was conducted during November 20 – 24, 2017 with 16 participants. During the five days of interaction, participants were actively engaged with Twenty-Three sessions, with minimum 1.5 hour duration for lectures and 2.0 hours for practicals, of active engagement with technical deliberations. In addition, there was a session on industrial visit to local tea garden.

and an on-site interactive session with technological aspects of tea-factory operation and management.

**I. Inaugural Programme (09:00 AM to 10:00 AM)**

The session was graced by Prof. D K Bhattacharyya, Dean Academic Affairs, Tezpur University, as the Chief Guest, with Professor Charu Lata Mahanta, Dean School of Engineering as the Chair. Dr. B. Srivastava, Head, Department of Food Engineering and Technology, along-with Dr M K Hazarika, Programme Coordinator, welcomed the 16 participants coming from various parts of the country.



**II. Technical Lectures and Laboratory Demonstrations:**

**Day-I (November 20<sup>th</sup>, 2017) : 02 sessions, 04 lectures and 01 practice**

Topics covered in lecture sessions: (i) Technology led Innovation to address India's Challenges (ii) Rheology and Texture of Foods (iii) Food Product Development: From Concept to Consumer, and (iv) Measurement Techniques for Nanoparticles (XRD, SEM, TEM) Respective resource persons were: (i) Prof Dhruba K

Bhattacharyya, Professor, Department of Computer Science and Engineering and the Dean, Academic Affairs, Tezpur University (ii) Dr Suvendu Bhattacharya, former Scientist CFTRI & Adjunct Faculty at Department of Food Engineering and Technology, Tezpur University, (iii) Prof Charu Lata Mahanta, Faculty at Department of Food Engineering and Technology and the Dean, School of Engineering, Tezpur University, and (iv) Dr Dambarudhar Mohanta, Associate Professor, Department of Physics, Tezpur University. The practical demonstration session on Rheology and Texture of Foods was conducted by Dr Suvendu Bhattacharya.

**Day-2 (November 21<sup>st</sup>, 2017) : 02 sessions, 04 lectures and 01 practice**

Topics covered in lecture sessions: (i) Technology of Breakfast cereals, (ii) Recent Advances in Dehydration of Foods, (iii) New packaging Technologies for the 21<sup>st</sup> century, and (iv) Infusion of Food Technology research outcome in curriculum development. Resource persons were, (i) Dr Sila Bhattacharya, Scientist (retd) Central Food Technological Research Institute, (ii) Prof. S. K. Das, former professor, Department of Agricultural and Food Engineering, IIT KGP. (iii) prof Madhusweta Das, former professor, Department of Agricultural and Food Engineering, IIT KGP, and (iv) Dr. M. K. Hazarika, Associate Professor, Food Engineering and Technology, Tezpur University. The practical session on “Application of Scilab and Matlab in Food processing and Engineering” was conducted by Dr M K Hazarika.

**Day-3 (November 22<sup>nd</sup>, 2017) : 02 sessions, 04 lectures and 01 practice**

Topics covered in lecture sessions: (i) New Food Product Design and Development, (ii) Extrusion Technology, (iii) Optimization techniques in Food processing and (iv) Pedagogical strategies in content delivery in Food Technology. Resource persons were (i) Prof Madhusweta Das, former professor, Department of Agricultural and Food Engineering, IIT KGP, (ii) Dr Suvendu Bhattacharya, former Scientist CFTRI & Adjunct Faculty at Department of Food Engineering and Technology, Tezpur University, (iii) Prof Dilip Dutta, Department of Mechanical Engineering, Tezpur University and (iv) Prof S S Sarkar, Department of Business Administration, Tezpur University. A practice session was conducted on “Statistical Analysis in Biological/Food system by SPSS” by Dr K K Dash, Department of Food Engineering and Technology, Tezpur University.

**Day-4 (November 23<sup>rd</sup>, 2017) : 02 sessions, 04 lectures and 01 practice**



Topics covered in lecture sessions: (i) Measurements in Food processing by Prof Manabendra Bhuyan, Department of Electronics and Communications Engineering, Tezpur University, (ii & iii) Membrane based separations and Ionic liquid based separations, by Prof Kaustubha Mohanty, IIT Guwahati, (iv) Encapsulation Technology in Food processing by Prof S. Bhattacharya, former Scientist CFTRI & Adjunct Faculty at Department of Food Engineering and Technology, Tezpur University. A practice session was conducted on “Advanced analytical techniques, CGMS and AAS” by Prof C L Mahanta, Department of Food Engineering and Technology, Tezpur University

**Day-5 (November 24<sup>th</sup>, 2017) : 02 sessions, 01 Industrial visit and industry interaction, 02 lectures**

Topics covered in lecture sessions: (i) Advanced analytical techniques: HPLC by Prof S. C. Deka, Department of Food Engineering and Technology, Tezpur University and (ii) Instrumental methods by Prof S K. Dolui, Department of Chemical Sciences, Tezpur University.

A visit was organized to a local tea garden housing a tea-processing unit under the Amalgamated Plantations Ltd, and an on-site interactive session with technological aspects of tea-factory operation and management was held with the factory manager.

- III. Valedictory function was organized at the Conference room of the Department of Food Engineering and Technology, with Professor Charu Lata Mahanta, Dean School of Engineering and Prof S K Dolui, Department of Chemical Sciences, Tezpur University as the Guests of Honour, who had formally handed over the participation certificates to the participants.

Signatures of Conveners/ Chair/ Coordinator/ In-charge	Signature and Seal of Head of Department/ Centre/ Cell
 <p>Name: Dr. M K Hazarika Designation: Coordinator AFPT-2017</p>	 <p>Name: Dr N sit Designation: Professor</p>