

**Programme schedule
TiiFH 2019**

Organized by
**Food Engineering and Technology
Department
Tezpur University
Tezpur, Assam, India**

February 14-16, 2019

Day 1: February 14, 2019

Venue: Council Hall, Main Building, Tezpur University

09:00-10:00: Registration

10:00-11:00: Inauguration of International Conference

11:00-11:30: Keynote address: N C Talukdar, Director, Institute of Advanced Study in Science and Technology (IASST), Guwahati

11:30-11:55: Break for High Tea

Session 1: Food Policy and Concept

Venue: Council Hall, Main Building, Tezpur University

11:55-12:25: Technology vision for the food processing sector in India

Gautam Goswami

12:25-12:55: Designing new food products for health and diet: Challenges for industries

M.B. Bera

13:00-14:00: Lunch break: Venue: Community Hall

Session 2: Newer Areas in Food Engineering

Venue: Council Hall, Main Building, Tezpur University

Lead lecture

14:00-14:30: 3D printing for healthy foods

Sangeeta Prakash

14:30-14:50: Improvement of thermal performance of cold storage: Use of phase change material (PCM)

Vivek Raj and T.K. Goswami

14:50-15:10: Nanoemulsions to maximise benefits of lipophilic bioactive compounds

Charu Lata Mahanta

15:10-15:25: Control of storage parameters using wireless sensor networking to maintain the nutritional properties of stored wheat grains

Paramita Guha, Virmita Malhotra and Sunita Mishra

15:25-15:40: Optimality of oven, tray and refractance window drying processes during processing of turmeric slices

Preetisaagar Talukdar, Pranjal Pratim Das and Ramgopal Uppaluri

15:40-15:55: Tea break: Venue: Council Hall

Session 3: Presentation by Young Researchers (YR)

Venue: Seminar Hall, Department of Energy, Tezpur University

14:30-14:45: Nanotechnology based approaches to incorporate bioactives in food processing

Manashi Das Purkayastha

- 14:45-15:00: Effect of dehydration and grinding temperatures on particle and physicochemical characteristics of onion powder
Bhupendra M Ghodki
- 15:00-15:15: Documentation and microscopic characterization of botanicals used by *deori* community of *Dhemaji* district, Assam using foldscope
Pranab Borah, Bapan Banik and Mousmi Saikia
- 15:15-15:30: Influence of pre-treatments on the levels of chlorophylls in drying of coriander leaves (*Coriandrum sativum*) and kinetic study
Radha Krishnan Kesavan and Prakash Kumar Nayak
- 15:30-15:45: Development of nutraceutical enriched beverage from underutilized crops of Northeast hill region
S.R. Assumi, H. Rymbai, M.B. Devi, P.T. Singh and A.K. Jha
- 15:45-16:00: Application of probiotics in non dairy foods for advancing human health
Vasudha Sharma

15:40-15:55: Tea break: Venue: Council Hall

Session 4: Advances in Food Engineering

Venue: Council Hall, Main Building, Tezpur University

Lead Lecture

- 15:55-16:25: Emerging trends in agri-food processing technology: Importance of R & D collaboration in food and health sector
Venkatesh Meda
- 16:25-16:45: Development of biomass based value added products for food packaging application
Vimal Katiyar
- 16:45-17:05: Mathematical modelling in microbiological analysis of food products: Ecological perspective
Kartikey Chaturved, Kalyan Das and Siddhartha Singha
- 17:05-17:25: Entrepreneurship and livelihood development through *makhana* processing in Manipur: Mechanization and processing inputs
Ng. Joykumar Singh, Prakash K Sarangi and Th. Anand Singh

Poster session 1: Food Engineering (FE)

15:30-17:00: Venue: Lounge of Council Hall

19:00-20:30: Cultural Programme: Venue: KBR Auditorium, Tezpur University

20:00-21:30: Dinner: Venue: Community Hall

Day 2: February 15, 2019

Breakfast: 7:45-8:45: Venue: Community Hall

Session 5 (Newer areas of Food Technology) (Venue: Council Hall)

Venue: Council Hall, Main Building, Tezpur University

Lead lecture

9:00-9:30: Cold plasma: An emerging non-thermal technology for food and agriculture
Uday Annapure

9:30-9:50: Low-cost nutritious ready-to-prepare food for all ages: Development and characterisation of rice-milk mix
A Chakkaravarthi

9:50-10:10: Quantification of quality of agri-produce using NIR Spectroscopy
Sunita Mishra

10:10-10:25: Spray drying of fermented dairy and non-dairy foods
Dibyakanta Seth

10:25-10:40: A novel approach of cryo-protection of surimi during frozen storage using carrot (*Daucuscarota*) concentrated protein
Sanjeev Sharma, Upasana Mohanty and Ranendra Kumar Majumdar

10:40-10:55: *Thysanolaena maxima* – an alternate source for carbohydrate monomer
M. Thakur, A. Sharma and S. Goswami

11:05-11:20: Tea break: Venue: Council Hall

Session 6: Presentation by Young Researchers (YR) (Continuation from Day 1)

Venue: Seminar Hall; Department of Energy, Tezpur University

10:00-10:15: Characterization of nanocrystalline cellulose extracted from rice husks and almond shell biomass
Himjyoti Dutta

10:15-10:30: Pulsed light treatment of pineapple juice
Snehasis Chakraborty, Kathrin Vollmer, Christof B. Steingass, Prasanna P. Bhalerao and Reinhold Carle

10:30-10:45: Enzymatic clarification of *Phyllanthus emblica* juice using xylanase from *Bacillus pumilus*
Ashish Dixit and Neha Chauhan

Tea break 10:50-11:10: Venue: Council Hall

Session 7 (Advances in Food Technology)

Venue: Council Hall, Main Building, Tezpur University

Lead lecture

11:30-11:55: High quality liquid food concentration by progressive freeze concentration
M.P.G. Vanniarachchy, J.A.E.C. Jayewardene and P.L.I. Jayarathna

Lead lecture

11:55-12:25: Glass transitions in food process and product development
Yrjö H. Roos

12:25-12:40: Is 1,8-cineole, the bioactive principle of small cardamom seeds the new molecule for mitigating oxidative stress disorders? Investigations on efficacies of the supercritical carbon dioxide extract of this biomolecule and its nanoliposomal formulation
Paramita Bhattacharjee, Kaninika Paul, Nilendra Chatterjee, Tapan, Kumar Pal and Sasanka Chakrabarti Das

12:40-12:55: Minimizing energy consumption in food processing
Dilip Datta

Poster Session 2: Food Technology (FT)

11:30-13:00: Venue: Lounge of Council Hall

Lunch break 13:00-14:00: Venue: Community Hall

Session 8 (Trends in Food Processing)

Venue: Council Hall, Main Building, Tezpur University

Lead lecture

14:00-14:30: Biopolymeric-based emulsion systems and their effects during processing, digestibility and bioaccessibility on bioactive compounds in food systems
Anil Kumar Anal

14:30-14:45: Green synthesis of silver nanoparticles using passion fruit extract for its antibacterial activity
Sukumar Purohit, Chitta Ranjan Barik, L. Sahoo, and Vaibhav V. Goud

14:45-15:00: Direct transformation of defatted seed meal into biodegradable packaging films
Lourembam Monika Devi, C. Lalnunthari and Laxmikant S. Badwaik

15:00-15:15: Effect of extrusion processing and hydrocolloids on the stability of added vitamin B12 and physico-functional properties of the fortified puffed extrudates
Seema R. Bajaj and Rekha S. Singhal

15:15-15:30: Lesser known Allium species and their values of Arunachal Pradesh, India
Ashalata Devi and Kaustubh Rakshit

15:30-15:45: Application and challenges of 3D printing technology and its future in food packaging
Ajit Kumar Singh and Alak Kumar Singh

15:45-16:00: Tea break: Venue: Community Hall

Session 8 (continued)

Venue: Council Hall, Main Building, Tezpur University

16:00-16:20: Quantification of quality of agri-produce using NIR Spectroscopy

Sunita Mishra

16:25-16:45: Emerging technologies for food processing for designing novel foods

Navin Kumar Rastogi

16:45-17:05: Fish processing waste – A potential bioresource for industrial application

R. K. Majumdar

17:05-17:25: Use of extrusion cooking for glycyrrhizin extraction and rice flour modification

Amit Baran Das

Session 9 (Food and Health-1)

Venue: Department of Energy, Tezpur University

11:15-11:30: Technological levers in the ever-emerging demand for clean and sustainable food system

Rohit Upadhyay

11:30-11:45: Physicochemical and phytochemical analysis of sea buckthorn (*Hippophaesalicifolia* D. Don) berries

Abebe Moges Tadesse, Chitta Ranjan Barik and Vaibhav V. Goud

11:45-12:00: Development of nutraceutically improved *gulabjamun* using soykhoa

Ankur Ojha and Akriti Sharma

12:00-12:15: Bioactive peptides: Functionality and health benefit in obesity and obesity-associated disorders

Raj Kumar Duary

12:15-12:30: Antibiotic usage in food industry and its resistance in view of evolutionary game theory: A review of problem

Bishal Baishya

12:30-12:45: Optimization of osmotic pressure treatment of rice starch

Mainao Alina Gayary and Charu Lata Mahanta

12:45-13:00: Phenolic compounds in TTRI cultivars and their efficiency as antioxidant

Himangshu Deka, Arundhuti Devi and Pradip Tamuly

Lunch break 13:00-14:00: Venue: Community Hall

15:45-16:00: Tea break: Venue: Community Hall

20:00-21:30: Dinner: Venue: Community Hall

Day 3: February 16, 2019

Breakfast: 7:45-8:45: Venue: Community Hall
Poster session 3: 9:30-11:00: Food and Health (FH)

Venue: Lounge of Council Hall

Session 10: Flash presentation

Venue: Council Hall, Tezpur University

- 9:00-9:10: Use of frequency based sensor for spoilage detection in *paneer*
Subhradeep Samadder, Prem Prakash Srivastav, Ashis Kumar Datta and Sant Sharan Pathak
- 9:10-9:20: Ionizing radiation and physical treatments for shelf life improvement of mango (C.V. Lakshmanbhog)
Aman Kumar, Subhramalya Dutta, P. Kandasamy and Ivy Chakraborty
- 9:20-9:30: Fabrication and performance evaluation of small scale industrial purpose onion peeler
Sonam Kumari, Kshirod Kumar Dash and Dorcus Masih
- 9:30-9:40: Characterization of phytochemical properties and proximate composition of underutilized fruits *Meynalaxiflora (heibi)* and *Citrus macroptera (heiribob)* of Manipur region
M. Yumnam and P. Mishra
- 9:40-9:50: Effect of pulsed light treatment on quality attributes of pomegranate-muskmelon based mixed fruit beverage
Prasanna Bhalerao, Sagar Mahale and Snehasis Chakraborty
- 9:50-10:00: Governance of civilian unmanned aerial vehicle (UAV) for sustainable agriculture in India: A responsible innovation perspective
Anjan Chamuah and Rajbeer Singh
- 10:10-10:20: *Garcinia pedunculata* as an antibacterial, antibiofilm and antioxidant for food preservation
Muzamil Ahmad Rather, Kuldeep Gupta and Manabendra Mandal
- 10:20-10:30: Phytochemical analyses of *Dillenia indica*: A potent underutilized minor fruit of Assam
Rimki Boruah and Manashi Das Purkayastha
- 10:30-10:40: Malting potential and characterization of paddy under different germination conditions
D. Kalita and B. Srivastava

10:40-11:00: Tea break: Venue: Council Hall

Session 11: Academic Industry Integration

Venue: Council Hall, Main Building, Tezpur University

11:15-11:30: Competency based education in food process technology for bridging the gap between knowledge acquisition and ability to apply

Manuj Kumar Hazarika

Presentation by reputed industry professionals

11:30-11:45: Pratul K. Bora, Senior Manager, Tea and Spices, Amalgamated Plantations Pvt Ltd, Guwahati, Assam

11:45-12:00: Vijay Bhaskar Reddy, R&D Head (Food Division), Emami Group, Kolkata

12:00-12:15: Jagat Pradip Das, Factory Manager, ITC, Guwahati

12:15-12:30: Manoj K. Basumatary, CEO and Co-founder, Symbiotic Foods, Sonitpur, Assam

12:30-12:45: Amartya Guha, Associate Director, Flipkart, Hyderabad

12:45-13:00: Anupam Deka, Director, SRD Group of Industries, Mangaldoi, Assam

Lunch break 13:00-14:00: Venue: Community Hall

Session 12 (Food and Health-2)

Venue: Council Hall, Main Building, Tezpur University

Lead lecture

14:00-14:20: Food processing by ionizing radiations: A non-thermal additive free food preservation

Sunil K. Ghosh

14:20-14:35: Antioxidant, anti-bacterial and anti-viral potential of aqueous extract of *Cinnamomum tamala* leaves

M. R. Sahoo and M. T. Morgan

14:35-14:50: Functional nanomaterials: an important tool in biosensing

Poonam Mishra

14:50-15:10: Application of instantaneous pressure drop system for treatment of food product

Pranjal Pratim Das, Preetisagar Talukdar and Manuj Kumar Hazarika

15:10 – 15:25: Antimicrobial edible coatings in fresh food applications

Sunil Kumar, Ramesh Kumar and Sandeep Raheja

15:25-15:40: Development and evaluation of oleogel as a shortening agent for bakery product

Ashwani Kumar, Rekha S. Singhal and Alak Kumar Singh

Tea break: 15:40-16:00: Venue: Council Hall

16:00-17:00: Certificate and Prize Distribution Followed by Valedictory Function

Venue: Council Hall, Main Building, Tezpur University