Texture, Rheology and Tribology Characteristics of Food Materials: Recent Advances

....

Overview

Consumers are demanding more appealing products that taste great, functions correctly and look appetizing. They are not willing to trade off any of their most desired food attributes. Moreover, their expectations are set high from their favorite brands. With the myriad of new product introductions each year-many of which are not successful-often it is the more appealing products that overcome marketplace hurdles. For these reasons, product developers must consider the impact that organoleptic attributes have on consumer acceptance. The course aims to provide an in-depth understanding of the principles and measurement of food texture and rheology, its applications to food processing and the creation and design of new or improved food textures

The primary objective of the course is to provide exposure on food texture, rheology and tribology to enable food professionals working in industry and/or academic institutions (participants of the course) to develop novel products/design processes to suit consumer demands. The major objectives/outcomes of the course are as follows:

- Familiarizing the participants with fundamentals of novel methods of food texture, rheology and tribology
- Empowering the participants to understand the concepts in oral processing
- Building up skills of participants in sensory analysis
- Providing exposure to practical problems and their solutions, through case studies and lab sessions
- Promoting creative thinking

Date and Venue	December 12-16, 2022 **Department of Food Process Engineering, NIT Rourkela, Odisha** **Registration will be on first-come, first-served basis.**
You Should Attend If…	▪ you are a food professional including engineers & technologists from manufacturing, service and government organizations ▪ you are a faculty and researchers from universities, colleges, and R&D laboratories ▪ you are graduate or undergraduate students or doctoral students in food process engineering or related fields.
Fees	The participation fees for taking the course is as follows: **Students: INR 1000/-** **Faculty: INR 2500/-** **Industry / Research Organizations: INR 5,000/-** **Participants from abroad: US $250/-**

The Faculty

Dr. K. Muthukumarappan (Muthu) is a Distinguished Professor in the Agricultural and Biosystems Engineering department at South Dakota State University. He has developed, updated and taught curriculum for undergraduate and graduate level courses using effective teaching techniques. He earned his PhD from the University of Wisconsin-Madison in 1993 and had 4 years of postdoctoral training there during 1993 to 1997. After that he joined the faculty here at South Dakota State University (SDSU) in 1997 and have risen through the ranks. He had been a visiting professor at the University College Dublin, Ireland in 2006 and 2007. His research interests include Texture, Rheology, Food Properties, Extrusion, and Bioprocessing.

Dr. Sushil Kumar Singh is an Assistant Professor in the Department of Food Process Engineering, National Institute of Technology Rourkela, Odisha. He did his M.Tech. in Food Process Engineering from IIT Kharagpur in 2011 and had received DAAD Fellowship to conduct his Master's research in KIT, Germany. Dr. Singh received "Netaji Subhas-ICAR International Fellowship 2011-12" to pursue his PhD in Food Process Engineering from South Dakota State University, USA. He was R&D personnel for Vets Plus Inc., Wisconsin, USA till early 2017 and served as a Food Engineering Technologist in Institute for Dairy Ingredient Processing, South Dakota, USA till early 2018. His research interests include New Food Product Development, Extrusion, Food Properties, Modeling and Simulation, etc.

Dr. Rama Chandra Pradhan is an Associate Professor and Head of the Department of Food Process Engineering, National Institute of Technology Rourkela, Odisha. Dr. Pradhan is a skilled Agricultural Engineer and specializes in Bio Process and Food Engineering. He has been the pioneer in developing machines and technologies for the rural people of India such as multipurpose Decorticator, Jatropha decorticator, Jatropha oil expeller, Aonla pricking machine, Sal decorticator, Myrobalan decorticator, etc. Dr. Pradhan is a recipient of Jawaharlal Nehru Award for Outstanding Doctoral Thesis Research - 2012 in Agricultural Engineering by I.C.A.R., New Delhi. Till today, Dr Pradhan has published more than 80 international reputed journal papers and has one granted patent in his credit. His research interests include New Food Product Development, Extrusion, Food Properties, etc.

International Faculty

Dr. Kasiviswanathan Muthukumarappan, Ph.D., CFS
Fulbright-Nehru Scholar 2015-17
Distinguished Professor and Graduate Coordinator,
Department of Agricultural and Biosystems Engineering,
South Dakota State University, Brookings, SD 57007
Tel: +1 (605) 376 1975; Fax: 605-688-6764
Email: muthukum@sdstate.edu

Course Coordinators

Dr. Sushil Kumar Singh, Ph.D.
Assistant Professor
Netaji Subhas - ICAR International Fellow 2012-16
DAAD Fellow 2010-11
Department of Food Process Engineering
National Institute of Technology Rourkela 769008 Odisha
Tel: +91-9792347722 (M); +91-661-246 2908 (Off.)
Email: singhsk@nitrkl.ac.in

Dr. Rama Chandra Pradhan, Ph.D.
Associate Professor
Department of Food Process Engineering
National Institute of Technology Rourkela 769008 Odisha
Tel: +91-8895427339 (M); +91-661-246 2904 (Off.)
Email: pradhanrc@nitrkl.ac.in
………………………………………………………………………

https://gian.iitkgp.ac.in/GREGN/index

Course registration Link*:

https://forms.gle/i2oYEuaXauoGYSMS9

*Please do not confuse with web registration with course registration. The course registration fee is separate.