

## **FSC short course in Thailand 2017**

Silpakorn University and Kasetsart University, Thailand

**Topic:** Innovative Aseptic Technology for Food and Biomaterials

**Duration:** 5 days

**Invited Speaker:** Position and Contact Address

Dr. Ana Lucia Vásquez-Caicedo

Group Manager

Physical Process Technology

Fraunhofer Institute for Interfacial Engineering and Biotechnology IGB

Nobelstrasse 12

70569 Stuttgart, Germany

Phone +49 711 970-3669 Fax +49 711 970-4200

Email: [analucia.vasquez@igb.fraunhofer.de](mailto:analucia.vasquez@igb.fraunhofer.de)

### **Background**

Food and biomaterials are susceptible to microbial contamination. Spoilage of fresh produce is the major cause of postharvest losses in developing countries. Even though thermal processes are currently applied for pasteurization and sterilization of food and agricultural products, the undesirable quality attributes of final products in terms unacceptable sensory properties due to color and aroma losses as well as the formation of off-flavors still occur. Moreover, conventional thermal processing can destroy heat-sensitive valuable substances in the products, like vitamins. The latter limits the marketing of the products. Thus, non-thermal processing technologies such as pressure change technology or flash heating technologies such as microwaves are a good alternative.

## **Program**

### **Day 1 Monday 25 September 2017**

- 9.00-9.30 Registration
- 9.30-10.00 Welcome address/Introduction of the Instructors
- 10.00-10.30 Introduction of Fraunhofer Institute, Germany/Overview of the course
- 10.30-11.00 Break
- 11.00-12.00 Innovative Aseptic Technologies: Pasteurization/Sterilization
- 12.00-13.00 Lunch
- 13.00-14.00 Innovative Aseptic Technologies: Pasteurization/Sterilization (continue)
- 14.00-14.30 Principles of Microbial and Enzyme Inactivation
- 14.30-15.00 Break
- 15.00-16.30 Principles of Microbial and Enzyme Inactivation (continue)

### **Day 2 Tuesday 26 September 2017**

- 09.00-09.30 Questions &Answers
- 09.30-10.00 Milk and Beverage Technology focusing on Fruit Juices  
(Units operations/Quality)
- 10.00-10.30 Break
- 10.30-12.00 Milk and Beverage Technology focusing on Fruit Juices  
(Units operations/Quality) (continue)
- 12.00-13.00 Lunch
- 13.00-14.30 Milk and Beverage Technology focusing on Milk  
(Units operations/Quality) (continue)
- 14.30-15.00 Break
- 15.00-16.30 Milk and Beverage Technology focusing on Milk  
(Units operations/Quality) (continue)

### **Day 3 Wednesday 27 September 2017**

09.00-17.00 Excursion (Milk Production & Juice Production)

**Day 4 Thursday 28 September 2017**

09.00-09.30 Questions & Answers

09.30-10.00 High Pressure Technology for Pasteurization Food and Beverages

10.00-10.30 Break

10.30-12.00 High Pressure Technology for Pasteurization Food and Beverages  
(continue)

12.00-13.00 Lunch

13.00-14.30 Microwave Technology for Pasteurization/Sterilization

14.30-15.00 Break

15.00-16.30 Laboratory Practices

**Day 5 Friday 29 September 2017**

09.30-10.00 Summary of Innovative Aseptic Technologies

10.00-10.30 Break

10.30-12.00 Implementation of Innovative Technologies in Industrial Sectors  
(Example projects)

12.00-13.00 Lunch

13.00-14.00 Discussion and Evaluation of the course

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