

# Course Description:

Membrane technology in the food and beverage industries



Faculty of Agro-Industry, Prince of Songkla University

Presents  
the

## Membrane Technology Training Course on Membrane Technology in the Food and Beverage Industries

*Organized  
by*

Agro-industrial development center for export (ADCET),  
Faculty of agro-industry, Prince of Songkla University

*Supported  
by*

GE Power & Water and  
LPE membrane knowledge center

**April 4 - 5, 2016  
LPE Membrane Knowledge Center**

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### Course Director:

Assoc. Prof. Dr. Wirote Youravong

### Instructors:

Assoc. Prof. Dr. Wirote Youravong

*Membrane Science and Technology Research Center  
& Department of Food Technology, Faculty of Agro-industry  
Prince of Songkla University, Hat Yai, Songkhla, Thailand 90112*

Dr. Kin-Ho Wee

*Filters & Membrane Commercial Engineering Leader  
APAC, Water & Process Technologies  
GE Power & Water  
Tanjong Penjuru Crescent, Singapore 608973*

Mr. Barry Abolmaali

*Commercial Engineering & Commercial Operations  
Filter & Membrane business  
GE Power & Water*

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### Course Contents/ Topics of Interests Included:

- Principle of membrane processes
- Membrane material and properties
- Membrane module and system
- Membrane process performance
- Membrane fouling and cleaning
- Membrane in the food/ beverage processing
- Membrane in food/beverage industry : a case study
- Site visit/laboratory/demonstration on membrane in food processing

### Aims and Scope:

This 2-day training course aims to provide fundamental principle and practical experience in membrane technology for the food industry. The lecture will cover membrane process technology, recent membrane process in food and beverage processing and intensive show case study. The course also offers the attendees to visit membrane pilot plant and to gain some experiences in membrane pilot plant operation and to observe some food product characteristic delivered. This course is derived from a unique combination of specialization in food process engineering and membrane process technology. Industrial experience, some relevant research and recent development in membrane technology will be discussed.

This specialized training course is designed for personnel staffs working in the food and beverage industries which are owner, manager, supervisor, scientist, technologist and engineer involving process and product research and development, production department, project department, engineering department.

### Learning Methods and Activities:

Lecture, Video, Site Visit and Practice

### Avenue:

LPE Membrane Knowledge Center, Liquid Purification Engineering International Co., Ltd., Bang Yai, Nonthaburi, Thailand

### Language:

Thai/ English

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### Program/ Schedule

#### Day 1 (April 4, 2016)

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- 08:00 - 08:30 Registration  
08:30 - 08:40 Opening Ceremony  
08:40 - 10:10 **Principle of membrane processes** by Assoc. Prof. Dr. Wirote Youravong (*Lecture slide/ video of Lab scale membrane unit*)  
10:10 - 10:30 Break/Refreshments  
10:30 - 11:00 **Membrane material and properties** by Dr. Kin-Ho Wee (*Lecture slide/ video / membrane samples*)  
11:00 - 12:00 **Membrane module and system** by Assoc. Prof. Dr. Wirote Youravong (*Lecture slide/ video of lab- scale membrane unit*)  
12:00 - 13:00 Lunch  
13:00 - 14:30 **Membrane process performance** by Assoc. Prof. Dr. Wirote Youravong (*Lecture slide/ video of lab- scale membrane unit*)  
14:30 - 14:50 Break/Refreshments  
14:50 - 16:20 **Membrane fouling and cleaning** by Dr. Kin-Ho Wee (*Lecture slide/ video of lab- scale membrane unit*)

#### Day 2 (April 5, 2016)

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- 08:00 - 08:40 Registration  
08:40 - 10:10 **Membrane in the food/ beverage processing** by Assoc. Prof. Dr. Wirote Youravong (*Lecture slide/ video*)  
10:10 - 10:30 Break/Refreshments  
10:30 - 12:30 **Membrane in food/beverage industries: a case study** by Dr. Kin-Ho Wee (*Lecture slide/ video*)  
12:30 - 13:30 Lunch  
13:30 - 14:30 **Site visit/laboratory/demonstration on membrane in food processing** by Assoc. Prof. Dr. Wirote Youravong/ Dr. Kin-Ho Wee/ Barry Abolmaali /LPE staffs (*Membrane pilot plant, Liquid food*)  
14:30 - 14:50 Break/Refreshments  
14:50 - 16:20 **Site visit/laboratory/demonstration on membrane in food processing (Cont.)** by Assoc. Prof. Dr. Wirote Youravong/ Dr. Kin-Ho Wee/ Barry Abolmaali /LPE staffs (*Membrane pilot plant, Liquid food sample*)  
16:20 - 17:00 Question & Answer/Closing Ceremony

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#### Important Dates:

- Registration Form Submission deadline: **March 25, 2016**
- Early Payment: **March 25, 2016**

#### Registration:

The registration fee for 2-day training course is 7,000 Baht\*\*\*. The fee includes training manual, daily lunch, refreshments and certificates of completion. (*\*\*\*Special for government sector: 6,000 Baht*)

For private sector, there is a 1,000 baht discount if two or more individuals from the same organization register for this course.

Please submit an electronic copy of your Registration Form and Payment to Apichon Kamnerdwam (apichon.k@psu.ac.th).

*All the materials required should be in the format of MS-Word or portable document format (PDF).*

**Remark:** Registration Form Submission deadline & Early Payment: **March 25, 2016**

**Number of Expected Attendee:** 30-60

#### For Additional Technical Information Contact:

*Assoc. Prof. Dr. Wirote Youravong*

Course director

E-mail: [wiwrote.y@psu.ac.th](mailto:wiwrote.y@psu.ac.th)

#### For Registration Inquiries Contact:

*Apichon Kamnerdwam*

Training Course Coordinator

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E-mail: [apichon.k@psu.ac.th](mailto:apichon.k@psu.ac.th)

#### ADCET Web Address:

Please access the following web site for more detailed information about training course:

<http://adcet.psu.ac.th>

<http://adcet.psu.ac.th/Membrane.php>

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