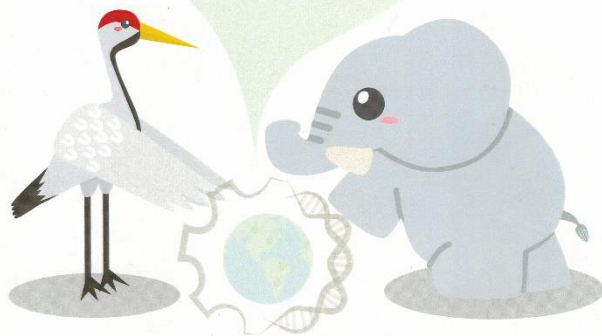




# Eco-Engineering Symposium 2017:

Application of Technology for  
Sustainability of Natural  
Resources



12-15 JULY 2017

KASETSART UNIVERSITY, BANGKOK, THAILAND

## ECO-ENGINEERING SYMPOSIUM 2017:

APPLICATION OF TECHNOLOGY FOR SUSTAINABILITY OF NATURAL RESOURCES

Date: July 12-15, 2017

Conference venue: Faculty of Agro-Industry, Kasetsart University, Bangkok,  
Thailand

### SYMPOSIUM ORGANIZERS

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### PROGRAM COMMITTEE

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**Dr. Yoshiaki KITAYA**

Professor, Department of Environmental Sciences and Technology,  
Graduate School of Life and Environmental Sciences,  
Osaka Prefecture University, Japan



# SYMPOSIUM PROGRAM

**Venue:** Intellectual Hall (AI 5419), Faculty of Agro-Industry, Building 5, 4th Floor

## Wednesday 12 July 2017

- 08:30-09:00 Registration
- 09:00-09:10 Welcome and Opening Remarks  
**Ratchot CHOMPUNICH**  
Acting Vice President for Strategic Development and Organizational Communication and Acting Dean of the Faculty of Agro-Industry
- 09:10-09:40 Keynote Lecture I: "The Society of Eco-Engineering (SEE): its goals and current activities"  
**Seishiro KIBE**  
Visiting Scientist, Japan Aerospace Exploration Agency, Japan
- 09:40-10:10 Keynote Lecture II: "Eco-engineering for environment"  
**Surat BUALERT**  
Dean of the Faculty of Environment, Kasetsart University, Thailand
- 10:10-10:30 Biological activity of wines, grape oils and possibilities of using by-products from wine making in different kind of industry  
**Eva IVANIŠOVÁ**  
Slovak University of Agriculture in Nitra, Slovakia
- 10:30-11:00 Coffee Break & Poster viewing**
- 11:00-12:00 AIR & THE ENVIRONMENT**  
Chairperson: **Masato ENDO**, Tokyo University of Marine Science and Technology
- 11:00-11:20 Photocatalytic purifications of air contaminated with various kinds of chemical compounds  
**Fumihide SHIRAISHI**  
Kyushu University, Japan
- 11:20-11:40 Volatile organic compounds (VOCs) and oxide of nitrogen (NOx) during smog case study: Lampang province  
**Thitima RUNGRATANAUBON**  
Kasetsart University, Thailand

# SYMPOSIUM PROGRAM

- 11:40-12:00 Leaf uptake of atmospheric volatile organic compounds by plant  
**Akira TANI**  
University of Shizuoka, Japan
- 12:00-12:20 Ecological services to water-birds and shorebirds in man-made areas of the King's royally initiated Leam Pak Bia environmental research and development project, Phetchaburi province, Thailand  
**Narouchit DAMPIN**  
Kasetsart University, Thailand
- 12:20-13:30 **LUNCH**
- 13:30-14:30 AQUATIC SPECIES**  
Chairperson: **Onanong PHEWNIL**, Kasetsart University
- 13:30-13:50 Aquatic invasive alien species; current situation and research  
**Ratcha CHAICHANA**  
Kasetsart University, Thailand
- 13:50-14:10 Effect of fish-plant ratio and water salinity on water quality and plant production in kelp grouper-ice plant aquaponics system  
**Masato ENDO**  
Tokyo University of Marine Science and Technology, Japan
- 14:10-14:30 Removal of formaldehyde in wastewater by VFCW technology in parallel with aquatic plant granular charcoal-mixed soils  
**Watcharapong WARARAM**  
Kasetsart University, Thailand
- 14:30-16:30 Visit the Faculty of Environment, Kasetsart University & Coffee Break
- 18:00-21:30 **Welcome party**

## Thursday 13 July 2017

- 09:00-10:20 **EARTH, MANGROVE, and CONSTRUCTED WETLAND**  
Chairperson: **Nuttakan NITAYAPAT**, Kasetsart University



# SYMPOSIUM PROGRAM

- 09:00-09:20 Earth system in transition: the standpoint  
**Hiroshi MIZUTANI**  
Nihon University, Japan
- 09:20-09:40 Mangroves as interfaces between land and sea ecosystems and between Thai and Japanese researchers  
**Yoshiaki KITAYA**  
Osaka Prefecture University, Japan
- 09:40-10:00 Incidence of antibiotic resistant *E. coli* in hospital-wastewater tertiary treated by constructed wetland  
**Wilai CHIEMCHAI SRI**  
Kasetsart University, Thailand
- 10:00-10:20 Greenhouse gas emissions from constructed wetlands treating domestic wastewater in tropical climate: effects of system configuration and vegetation harvesting  
**Chart CHIEMCHAI SRI**  
Kasetsart University, Thailand
- 10:20-11:00 Coffee Break & Poster viewing**
- 11:00-12:20 WASTE UTILIZATION**  
Chairperson: **Akira TANI**, University of Shizuoka
- 11:00-11:20 Application of emerging technologies for extraction of natural antimicrobials from agricultural wastes  
**Mohammad Naghi ESHTIAGHI**  
Mahidol University, Thailand
- 11:20-11:40 Recovery of energy resources from Azolla plants using anaerobic digestion  
**Ryosuke ENDO**  
Osaka Prefecture University, Japan
- 11:40-12:00 Biogas production from lipid-rich waste material  
**Nuttakan NITAYAPAT**  
Kasetsart University, Thailand
- 12:00-12:20 Biotechnological utilization of corn residues toward a zero waste approach  
**Siriwat JINSIRIWANIT**  
Chiang Mai University, Thailand

# SYMPOSIUM PROGRAM

- 12:20-13:30 LUNCH**
- 13:30-15:00 PLANTS**  
Chairperson: **Kittipong RATTANAPORN**, Kasetsart University
- 13:30-13:50 Understanding of entire plant metabolism in response to environmental stresses via genome-scale mathematical model  
**Kansuporn SRIYUDTHSAK**  
RIKEN Center for Sustainable and Resource Science, Japan
- 13:50-14:10 Root tensile properties of five selected forest trees  
**Payattipol NARANGAJAVANA**  
Kasetsart University, Thailand
- 14:20-14:40 Development of a New Carbonization Furnace for Bamboos and the properties (2nd report)  
**Masatoshi SHINOZAKI**  
Specified Non-Profit Organization KURAMAE Bioenergy, Japan
- 14:40-15:00 A reasonable way to characterize metabolic reaction networks by connecting sensitivity values with respect to metabolite concentrations and fluxes  
**Atsuko MIYAWAKI-KUWAKADO**  
Kyushu University, Japan
- 15:00-15:10 CLOSING REMARK  
**Yoshiaki KITAYA**  
Department of Environmental Sciences and Technology, Graduate School of Life and Environmental Sciences, Osaka Prefecture University  
President of The Society of Eco-Engineering, Japan
- 15:10-15:30 Coffee break**
- 15:30-16:30 Campus tour or visit to a specific faculty by request

# SYMPOSIUM PROGRAM

## **Friday 14 July 2017**

- 8:00 Depart to Chanthaburi  
Pick up point: KU Home
- 11:00 Visit Chanthaburi town market
- 12:00 LUNCH
- 13:00 Depart to visit the Kung Krabaen Bay Royal Development
- 16:30 Check in at Saint Tropez Beach Resort  
[www.sainttropezbeachresort.com](http://www.sainttropezbeachresort.com)
- 18:00 Dinner

## **Saturday 15 July 2017**

- 10:30 Check out and depart back to Bangkok
- 12:00 Lunch
- 16:30 Arrive Bangkok

