

Thailand's Annual International Training Course (AITC) 2017

“Waste Management and Wastewater Treatment for Sustainability”

I **Course Title:** Waste Management and Wastewater Treatment for Sustainability

II **Duration:** 9 – 28 November 2017

III **Closing date for application:** 18 August 2017

IV **Background and Rational**

Population growth and economic growth are among the major causes of environmental degradation and pollution especially through generation of waste and wastewater. At the same time, the pollution prevention and waste management method especially in developing countries are still underdeveloped. Inappropriate management of waste and wastewater is an alarming issue for developing world as rapid increase of waste is being generated. Dumping of waste on vacant land and discharge of untreated wastewater into a river have caused immeasurable environmental and health effects. The pollutants and toxic substances released from the illegal dumping sites possibly contaminate land, groundwater and surface water nearby. It also creates momentous affects to aquatic lives, residence in the vicinity area of the dumping sites and along the rivers. This problem is not limited only to local level but to the global level as well. The uncontrolled emission of greenhouse gases from the degradation of organic substances in waste and wastewater such as methane and carbon dioxide is one of the major concerned in global warming issue.

Thailand has taken steps to improve the municipal solid waste management and wastewater treatment during the past decade. The Annual International Training Course on “**Waste Management and Wastewater Treatment for Sustainability**” aims at providing understanding on the principles underlining effective waste management from generation, collection, transport, reuse, recycle and disposal and technology for wastewater collection and treatment. In addition, the method to transform organic substances in waste and wastewater to the energy will also be introduced during this program. The course will be conducted by the Faculty of Environment and Resource Studies, Mahidol University, which has extensive experience in conducting research in this area.

V **Course Objectives**

- To introduce concepts, principles and knowledge on municipal solid waste management and waste and wastewater treatment technologies.
- To enhance practical knowledge, technology and skills in the area.

VI Course Contents

Course Outline

- Perspective of Waste Management
- Industrial Waste and Hazardous Waste Management
- Overview of Wastewater Treatment/Wastewater Collection System
- Waste as a Resources
- Biological Treatment of Waste (Composting & Anaerobic Digestion)
- Chemical Treatment of Waste (Incineration for Non HW/HW and Infectious Waste)
- Land Disposal
- Central Wastewater Treatment System for Urban Area (Activated Sludge/ Oxidation Ditch/RBC)
- On-Site/Individual Wastewater Treatment System/WWT System for Rural Area (Stabilization Pond/Septic Tank)
- WTE: Sludge/Organic Waste Digestion in Anaerobic Process/ Biogas utilization for Energy in Small Scale
- WTE: Gasification/Pyrolysis/Cement Kiln/Plastic Waste to Oil
- E-Waste/Special Categories of Waste Basel Convention/Stockholm Convention
- Illegal Dumping/Discharge: Investigation and Remediation
- Site Selection and GIS Application
- Waste and Wastewater Global Warming Issue
- Public Participation/ Fee Collection

Study visits include, such as;

- WWTP Dindaeng or Bangsue and Saimai Transfer Station
- Nhong Kham Incineration Plant WTE and Nontaburi Site/Night soil, compostion, Landfill, Infectious Incinerator

Country Report

All participants are required to submit and prepare for a presentation of a country report which contains information on situation in their respective countries/territories concerning the training topic. Template will be circulated to successful candidates.

VII Number of Participants: 20 persons

VIII Qualifications

Candidates must possess qualifications as specified in “Guideline for Thailand’s Annual International Training Course Programme” No. 2 “Qualifications” as well as following qualifications.

- Below 40 years of age
- Currently working in relevant areas with experience more than two (2) years.
- Graduated with Bachelor degree or higher degree in relevant fields.

IX Application

- Nomination must be made by central government agencies in charge of nomination of national candidates (such as Ministry of Foreign Affairs) **or** by relevant central government agencies for which the nominated candidates currently work. Nomination must be in line with relevant rules and regulations of the nominating countries/territories.
- Each eligible countries/territories are invited to nominate up to two (2) candidates per course.
- The application must be submitted to TICA through the Royal Thai Embassy/ Permanent Mission of Thailand to the United Nations/ Royal Thai Consulate-General accredited to eligible countries/territories. (See “List of Eligible Countries/Territories”)

For more information on qualifications, application forms, and application procedures, please visit our website at <http://www.tica.thaigov.net/main/en/information/73803-Annual-International-Training-Course.html>

X Evaluation

Participants are required to attend all activities organized during the course as attendance in all sessions is obligatory. TICA reserves the rights to revoke its fellowship offer or take appropriate action deemed appropriate in case a participant is in attendance of less than 90 percent of the training hours.

XI Training Institution and Venue:

Faculty of Environment and Resource Studies,
Mahidol University, Salaya Campus
Nakhon Pathom, Thailand

XII Contact

For more information, please contact;
Bureau of International Cooperation on Human Resource Development
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