



AIT TECHNOLOGY EVENT



# AIT TECHNOLOGY EVENT

BANGKOK, THAILAND  
10-11 JULY 2013



**AIT**  
Asian Institute of Technology

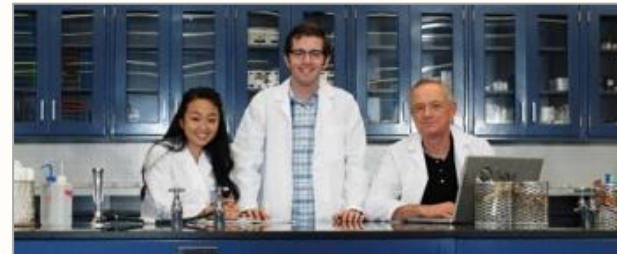




# Four Strengths of AIT



***Academics***



***Research***



***Executive  
Education***



***Consulting  
Services***





# AIT – Key Facts



2,300+ students from 47+ countries



17,000+ alumni from 80+ countries



26,000+ short-term trainees from 70+ countries



130 internationally recruited faculty from 20+ countries



468 research and support staff from approx. 30 countries



Approx. 450 sponsored research projects



33 Board of Trustee members from 19 countries



200+ partners, sponsors and clients



23 Laboratories



22 Centers of Excellence





*Over 50 years of academic  
and research excellence...*





# AIT has always been about **Technology...**

*AIT, through its research and technical excellence, brings together specialized experts and industry leaders to engage and explore mutually beneficial activities leading to advancements in relevant high technologies and cutting-edge management practices in an exclusive AIT Technology Event.*





AIT TECHNOLOGY EVENT



# AIT TECHNOLOGY EVENT



# ***What to expect from this event***

- **Keynote speeches**
- **Expert panel discussions**
- **Event presentation materials**
- **Exhibition of academic programs**
- **Exhibition of expertise and research**
- **Insight on trends, issues, and solutions**
- **Networking with domain experts and peers in the industries in the region**
- **Consulting resource and services**

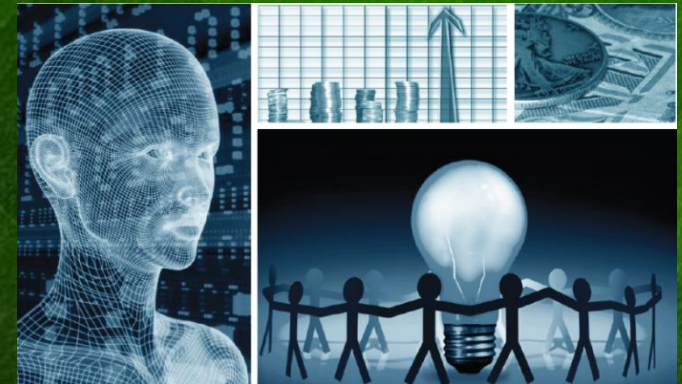






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# AIT Technology Event **THEME AND TOPICS**





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# Performance Enhancement of Tall Buildings, Real-estate, and Industrial Projects

**INNOVATIONS • TRENDS • TECHNOLOGICAL SOLUTIONS**





# 10 July | Topics

- ***Trends and Innovations in Building and Construction Industry in the ASEAN***
- ***Designing and Constructing Buildings for Higher Performance, Cost Effectiveness, and Sustainability: An Overview***
- ***How Safe are our Buildings for Earthquakes and Winds?***
- ***Innovative Solutions for Foundations and Deep Basements***
- ***What Makes Buildings Green and Sustainable?***
- ***Managing Facilities and Properties through GIS-based Integrated Systems***
- ***Assessing and Managing Risk in Projects***
- ***Solutions and Systems for Social and Affordable Housing***





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# Enterprise Performance Transformation and Management **THROUGH TECHNOLOGY-DRIVEN SOLUTIONS**





# 11 July | Topics

- ***Managing the Extended Enterprise: An Enterprise Architecture Approach***
- ***Practical Nanotechnology Today: Concepts to Applications***
- ***Operation Model for Supply Chain Performance Transformation: What Does “Good” Look Like?***
- ***Process Driven Change: Supply and Demand Planning***
- ***Reducing the Carbon Footprint for Sustainable Production Practices***
- ***Sustainable and Safer Processing in Food Industries***
- ***Innovation in Cloud Computing: Opportunities for Web-based Collaboration and IT Shared Service***
- ***Robots and Machines Development: from Imagination to Implementation***
- ***Innovations in Cleaner Production and Waste Management***
- ***Life Cycle Assessment of Products and Services to Assess Sustainability***
- ***Seeing the Big Picture: Sensing, Linking, Analyzing, and Visualizing Big Data***





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# AIT Technology Event **THE EXPERTS**





# 10 July | Speakers

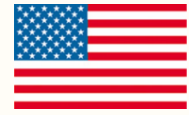
- *Mr. Chaovalit Ekabut*
- *Dr. Naveed Anwar*
- *Dr. Pennung Warnitchai*
- *Dr. Noppadol Phien-wej*
- *Dr. Brahmanand Mohanty*
- *Dr. Hamid Mehmood*
- *Dr. Gregory L. F. Chiu*
- *Mr. Gyanendra Sthapit*





# 11 July | Speakers

- *Prof. Thomas Gullede*
- *Prof. Joydeep Dutta*
- *Prof. Gabor Louis Hornyak*
- *Mr. Phiraboon Phaiboontham*
- *Dr. Vatcharapol Sukhotu*
- *Dr. Brahmanand Mohanty*







# 11 July | Speakers

- *Dr. Paul Janecek*
- *Dr. Matthew Dailey*
- *Dr. Manukid Parnichkun*
- *Prof. Chettiyappan Visvanathan*
- *Ir. Erik Bohez*
- *Dr. Anil Kumar Anal*





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AIT Technology Event  
**THE EXHIBITION**





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## INTRODUCING AIT

The Asian Institute of Technology (AIT) in Thailand is Asia's leading international higher learning institute of engineering and technology, environment, resources and development, and management.



[www.ait.asia](http://www.ait.asia)



### GLOBAL CITIZENS

*"AIT is developing the next generation of international engineers, scientists, and managers for AEC, Asia and the World."*

### ACADEMIC PROGRAMS

- School of Engineering and Technology (SET)  
[www.set.ait.asia](http://www.set.ait.asia)
- School of Environment, Resources and Development (SERD)  
[www.serd.ait.asia](http://www.serd.ait.asia)
- School of Management (SOM)  
[www.som.ait.asia](http://www.som.ait.asia)

All academic programs are conducted in English.



"Apply Now for August 2013 Semester"...





# DESIGN AND DEVELOPMENT OF EFFICIENT TURBINE

## Small Hydropower Plant in Chiang Mai



**Assoc. Prof. Erik L.J. Bohez, S. Kiattisak, S. Rueben, and N. Choosak**

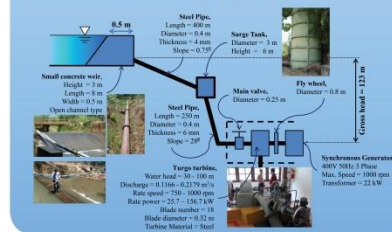
**Project Description:** The hydroelectric power plant of Ban Khun Pae located in Chon Thong, Chiang Mai, Thailand is one of five royal projects, under the supervision of the Provincial Electricity Authority (PEA), serving communities in the remote areas of the kingdom.

Built over 20 years ago, the hydraulic turbine is no longer functioning consistently, working well during the rainy season (2-3 months) and differing greatly in performance during the dry season due to decreased water flow into the system. This directly affects the production of electricity, the cost of maintenance, and benefits that could be transferred to the community by the PEA.

**AIT is working with the Provincial Electricity Authority to:**

- Investigate the issues on the current hydraulic turbine
- Study prediction and estimation of the average amount of runoff to determine suitable hydro turbines with the water flow
- Study and present approaches for optimizing the design of the hydraulic turbine geometry
- Manufacture and install the hydraulic turbine at the hydroelectric power plant located in Ban Khun Pae, Chon Thong, Chiang Mai
- Provide alternative designs for commercial use and reduce import of hydraulic turbines into Thailand

**Scheme of Ban Khun Pae Hydropower Plant**



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Industrial and Manufacturing Engineering  
School of Engineering and Technology  
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P.O. Box 4, Klong Luang, Pathumthani, 12120, Thailand

[www.ait.asia](http://www.ait.asia)





# AIT EXTENSION

www.extension.ait.asia

We **ENVISION**  
a world where qualified, committed **PROFESSIONALS** play a leading role in the **SUSTAINABLE DEVELOPMENT** of the region. **AIT EXTENSION** recognizes this and responds to regional opportunities for professional education and training through effective and proven capacity building programs.

We provide both ready-made courses as well as customized solutions for all types of industries and businesses.

AIT Extension covers a broad range of subjects that are offered through our 5 core focal units:



- # Urban & Rural Environment Development # Natural Resources Management # Education & Training Development # Poverty Reduction # Development Effectiveness # Business Performance, Management & Strategy # Private Sector Development # Public Sector Services & Management # ICT Management
- # Infrastructure Development & Public Utility Management # Sustainable Tourism



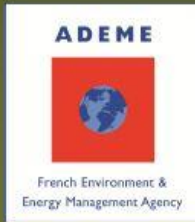
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**AIT Extension**  
Asian Institute of Technology  
Phone : (66)(2)524 5338, 6333  
E-mail : extension@ait.asia





# Action towards Resource-efficient and Low Carbon Cities in Asia



## Project Objectives

- To assist small and medium cities of Asia in their efforts towards low carbon society through improved resource efficiency and environmental sustainability.
- To strengthen capacity of city authorities and other stakeholders in climate change mitigation and adaptation.



*Group discussion in TCEP training at AIT*



*Demonstration of recyclable waste at Hue University*

## Implemented Activities

- Training partner city authorities and relevant stakeholders on Bilan Carbone® and Territorial Climate and Energy Plan (TCEP) and their applicability;
- Accompanying cities to conduct Bilan Carbone® Analysis and subsequently developed TCEP for climate change to mitigation and adaptation at the city level;
- Assisting cities to identify strategic areas for GHG mitigation and supported them to conduct pilot activities; and
- Disseminating information among a wider spectrum of stakeholders.



### Partner Cities



### Technical Consultants for Partner Cities

- Water Resource and Environment Office (WREO), **Luang Prabang**, Lao PDR
- University of Peradeniya, **Kandy**, Sri Lanka
- M/s Gamini Senanayake Associates Private Limited, **Kurunegala**, Sri Lanka
- SEVENATHA-Urban Resource Centre, **Matale**, Sri Lanka
- ENERTEAM, HCMC, Vietnam (for **Chau Doc Town**)
- Da Nang Environmental Protection Agency (EPA), **Da Nang**, Vietnam
- Hue University of Sciences, **Hue**, Vietnam
- AIT for the participating **Thai cities**

### Pilot Projects in Cities

- Introduced waste management practices (**Luang Prabang, Kandy and Matale**)
- Implemented energy efficiency measures in municipality buildings (**Nonthaburi and Rayong**)
- Constructed 1 km Green Path (**Kurunegala**)
- Implemented waste management, energy efficiency measures, tree plantation, capacity building of staff, teachers and student related to environmental education at Quang Trung Primary School in Da Nang to minimize carbon emissions. (**Da Nang**)
- Conducted awareness activities related to low carbon initiatives at household level, city authority offices, technicians of the factories and farmers of the city. (**Chau Doc town**)
- Conducted awareness campaign on a large scale on energy conservation and water saving program in Huong So ward and Huong Vinh commune. Organized 'Recycling and Cycling Festival' around Hue city and demonstrating the recycling waste utilization at Hue University (**Hue city**)







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138 Leading Organizations | 16 Countries

# THE PARTICIPANTS





**TOP EXECUTIVES:**

Ambassador  
Chairman  
President  
CEO  
Vice President  
Managing Director

**SENIOR  
EXECUTIVES:**

Director  
Project Director  
Deputy Chief General  
Manager

**EXECUTIVES:**

Manager  
Advisor

**TECHNICAL:**

Technical Expert  
Professor





# Participants from



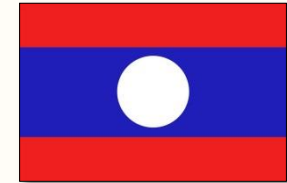


# Participants from





# Participants from







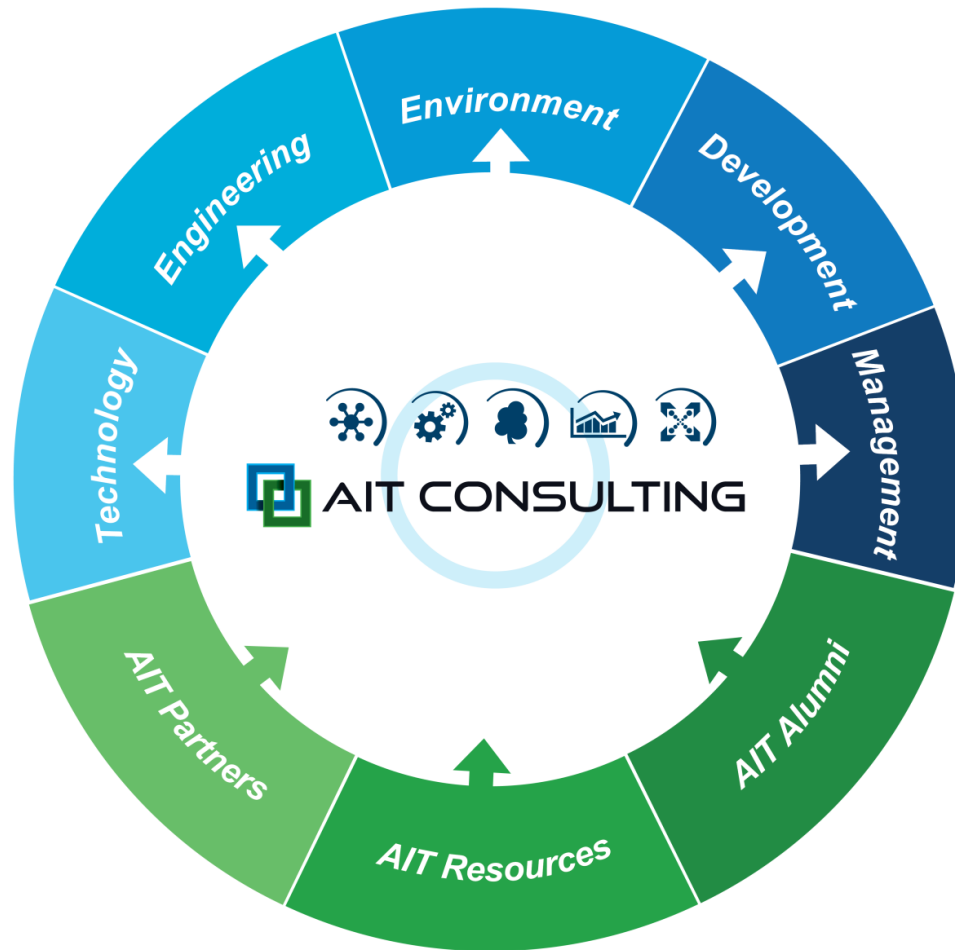
# About AIT Consulting

- Offers integrated solutions in technology, engineering, environment, development, and management
- Mobilizes a team from a pool of experts existing at the Institute, comprised of internationally recognized faculty, experienced researchers, and talented alumni
- **AIT Consulting** is one way for AIT to continue its mission to development and society





# Integrated Services and Resources







# Resources

