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Youth Energy Academy

Empowering youth to take climate action

28 October – 3 November 2019 | Pathum Thani, Thailand

ORGANIZED BY



AIT
Asian Institute of Technology

SUPPORTED BY



KONRAD
ADENAUER
STIFTUNG

IN COLLABORATION WITH



SUSTAINABLE ENERGY
YOUTH NETWORK



Nexus
for development









Draft

28 October – 3 November 2019
Asian Institute of Technology, Pathum Thani, Thailand

Programme Overview

Theoretical Morning Sessions

Aimed at introducing social, technical, environmental, economic and political, considerations covering the topics below.

Day 1	The Energy Trilemma The convergence of climate change, access to energy, and development	
Day 2	Decentralized Renewable Energy (DRE) Technologies Solutions addressing the Energy Trilemma	
Day 3	DRE on the ground Field visit to a local DRE project site	
Day 4	People Power Roles of individuals and communities in DRE	
Day 5	Social Business Potentials of social entrepreneurship in renewable energy	
Day 6	Resource Mobilization Sources for project financing and keys to project preparation	
Day 7	From Idea to Reality Steps to success: Community renewable energy project	

Practical Afternoon Sessions

Hands-on workshops on building simple solar energy systems

Informal Evening Sessions

Unpack your curious minds, discuss with colleagues, experts, and practitioners, Sit back and relax during film screenings, and Compete to win our **Phantom Load!** Halloween game.

08:00 - 09:00 **Registration and Networking**

09:00 - 09:30 Session 1 @ Training room, AIT Library
Opening Session

Welcome remarks and overview of the training programme.

Mr. Naoya Tsukamoto, Director AIT-RRCAP

Dr. Christian Hübner, Head of RECAP-Konrad Adenauer Stiftung Foundation

09:30 - 10:00 Session 2 @ Training room, AIT Library
Young Leaders for Environmental Action: Harvesting Hope Project

Madison Mehta, Harvesting Hope

A case study of how a group of young, empowered people is supporting Thai farmers for sustainability.

10:00 - 10:30 **Introductions and Coffee Break**

10:30 - 11:00 Session 3 @ Training room, AIT Library
The Energy Trilemma: Climate Change, Energy and Development

David Ferrari, UNESCAP

An overview of the complex challenges associated with the growing energy demand of developing countries across Asia amidst a rapidly changing climate.

11:00 - 11:30 Session 4 @ Training room, AIT Library
Decentralized Renewable Energy as a Solution for the trilemma

Susana Guerreiro, AIT-RRC.AP

A discussion on the role of access to energy to advance sustainable development, and how DRE offers a solution that bypasses the need for a vast grid system while stimulating the economy at the community level and providing climate action and sustainable development co-benefits.

11:30 - 12:00 Session 5 @ Training room, AIT Library
Decentralized Renewable Energy Technologies

Alex Fillippidis, SEYN

A brief introduction to various RE technologies for community projects.

12:00 - 13:00 **Lunch**

13:00 -14:00 Session 6 - Guided tour
The Asian Institute of Technology & Energy Lab
Dr. Hien, AIT Energy Lab
A brief guided walk on the AIT campus concluding with a visit and introduction to the AIT Energy Lab and workshop areas

14:00 - 14:30 Session 7 @ Energy Lab & workshop area
From Theory to Action: Hands-on Energy
Alex Filippidis & Katerina Anastasiadis, SEYN
Presentation of energy systems to be built by participants. Overview of materials used, tools and safety issues. The systems used will be donated to be used by a nearby community.

14:30 - 18:00 Session 8 @ Energy Lab & workshop area
Do-it-Together Energy Systems
Alex Filippidis & Katerina Anastasiadis, SEYN
Group workshops on building solar energy systems.

18:30 - 20:00 **Group Dinner**

20:00 - 20:30 Session 9 @ Teleconference room, AIT Library
An introduction to design thinking: discover, define, develop, deliver (webinar)
Anne Schiffer, Leeds Beckett University, UK
An introduction to design thinking to frame and develop your Renewable Energy project.

08:45 - 09:00 **Sign-up & Recap**

09:00 - 10:30 Session 10 @ Training room, AIT Library
Harnessing the Sun! Solar Power Technologies, Assessments and Considerations

Prof. Sivanappan Kumar, Department of Energy Environment and Climate Change, AIT

A dive into the technical aspects of solar photovoltaics, thermal, and cooking technologies with a focus on decentralized generation systems and their applications at the community level. The session will also discuss common assessments for solar energy and key considerations in pursuing DRE generation, including its business case and regulatory frameworks. Examples will draw upon the experiences in South and Southeast Asia.

10:30 - 10:45 **Coffee Break powered by Fosera: Exhibit of Pico-Solar Systems**

Songtam Kitikul, Managing Director, Fosera Thailand

10:45 - 11:45 Session 11 @ Training room, AIT Library
Plant Power! Bioenergy Technologies, Assessments and Considerations

Assoc. Prof. Abdul Salam, Department of Energy Environment and Climate Change, AIT

An Introduction to emerging bioenergy solutions, how the technology works, and their potential applications at the community-level. Similar to the previous session, discussions will include assessment approaches and key considerations in pursuing bioenergy solutions.

11:45 - 13:15 **Lunch**

13:15 - 18:00 Session 12 @ Energy lab & workshop area
Do-it-Together Energy Workshop

Group workshops on building solar energy systems.

20:00 - 21:00 Session 13 @ AIT Library

Ideas sharing

Participants will be invited to share their project ideas and discuss them with colleagues and trainers.

07:45 - 08:00 **Rendezvous & Departure for field trip**

09:00 - 11:45 Session 13 @ Community Occupational Learning Center, Khlong 6, Pathum Thani

Community Solar Thermal Project

Mr. Adun Wichianchai, Community Occupational Learning Centre

A site visit guided by a young farmer that implemented changes in his family's farm with a vision for sustainability based on the Sufficiency Economy Philosophy (SEP) and developed a business model incorporating a solar thermal system. Participants will have the opportunity to witness first-hand how renewable energy is benefitting other community members and have a chance to see and shop some of the products.

11:45 - 13:15 **Lunch on site & Return to AIT**

13:15 - 18:00 Session 14 @ Energy lab & workshop area

Do-it-Together workshops on solar energy systems

Alex Filippidis & Katerina Anastasiadis, SEYN

Group workshops on building solar energy systems.

20:00 – 21:00 Session 15 @ Teleconference room, AIT Library

The Role of Youth on SDGs: video presentations and round table discussion

Eric Lee, RECAP-Konrad Adenauer Stiftung

Video presentations and roundtable discussion with Youth-led projects offering solutions towards reaching the SDGs in Asia

21:00 - 21:15 **Putting Youth at the Centre of the 2030 Agenda: Climate Action and Social Business**

Christian Mortelliti, UNESCAP

Introduction of the Youth Voices for Climate Action (YV4CA) and Youth4SDG initiatives and challenging participants to participate in the campaign.

08:45 - 09:00 **Sign-up and Recap**

09:00 - 09:45 Session 16 @ Training room, AIT Library
People Power! The role of citizens and collectives in DRE

Susana Guerreiro, AIT-RRCAP

An introduction to models for citizen participation and ownership of DRE projects: prosumers, community energy, RE cooperatives, among others. A group exercise will allow participants to consider key barriers and drivers for implementation and the benefits and challenges of such models.

09:45 - 10:30 Session 17 @ Training room, AIT Library
Community Renewable Energy in Thailand

Dr. Chatchawan Chaichana, Energy Technology for Environment Research Centre, Chiangmai University

Lessons learned and experiences drawn from CRE projects in Thailand. The discussion will highlight youth involvement, adaptation results at the community level, and the regulatory and resources landscape relevant to CRE in Thailand.

10:30 - 10:45 **Coffee Break**

10:45 - 11:45 Session 18 @ Training room, AIT Library
Community Renewable Energy Workshop

Participants will be tasked to work on potential CRE projects to be developed in their respective communities.

11:45 - 13:15 **Lunch**

13:15 - 18:00 Session 19 @ Energy lab & workshop area
Do-it-Together workshops on solar energy systems

Alex Filippidis & Katerina Anastasiadis, SEYN

Group workshops on building solar energy systems.

20:00 **Phantom Load!**

A Halloween-themed Energy audit exercise.

08:45 - 09:00 **Sign-up and Recap**

09:00 - 09:30 Session 20 @ Training room, AIT Library
Negawatt: Beyond Energy Efficiency – Promoting Sufficiency

Jonathan Brenes, AIT-RRCAP

A discussion on the need to integrate energy efficiency in DRE projects, while also exploring the concept of *energy sufficiency* in designing and implementing projects to avoid overconsumption.

09:30 - 10:00 Session 21 @ Training room, AIT Library
Social Entrepreneurship for Renewable Energy

Dr. Faiz Shah & Pathit Ongvasith, AIT Yunus Centre

An introduction to social entrepreneurship and the various models and potential of RE and CRE in social businesses, highlighting examples from around the region. Examples include Solar PV home solutions in Bangladesh, Solar Power Lighting, and Solar-Powered Water Filtering Systems.

10:00 - 10:15 **Coffee Break**

10:15 - 12:00 Session 22 @ Training room, AIT Library
Tools for Social Enterprises in Community Renewable Energy

Dr. Faiz Shah & Pathit Ongvasith, AIT Yunus Centre

Participants will be tasked to use the Social Business Canvas tools for developing a CRE project.

12:00 - 13:15 **Lunch**

13:15 - 18:00 Session 23 @ Energy lab & workshop area
Do-it-Together workshops on solar energy systems

Alex Filippidis & Katerina Anastasiadis, SEYN

Group workshops on building solar energy systems.

20:00 - 21:00 **Roundtable: Women and Energy**

Jennifer Louie, Nexus for Development & Joyashree Roy, AIT

Debate on issues surrounding gender roles in energy and women participation in the energy sector

08:45 - 09:00 **Sign-up and Recap**

09:00 - 09:30 Session 24 @ Training room, AIT Library
Financing small scale RE projects

Jennifer Louie, Nexus for Development

An overview of avenues and tools to finance CRE, DRE, and other clean energy projects, including grants, private funding, crowdfunding among others.

09:30 - 10:00 Session 25 @ Training room, AIT Library
Project Finance: What are “bankable” projects?

Lyan Villacorta, AIT-RRCAP/C40 cities

Introduction of the notion of bankability in climate change action projects and the “bankability good practice checklist” tool. The discussion will also touch on key considerations in early-stage project preparation.

10:00 - 10:15 **Coffee Break**

10:15 - 11:00 Session 26 @ Training room, AIT Library
Problem Tree Exercise (TBC)

Lyan Villacorta, aAIT-RRCAP/C40 cities

Participants will be tasked to follow the Problem Tree exercise as a tool to build the rationale to implement a CRE project in a funding proposal (TBD)

11:00 - 11:45 Session 27 @ Teleconference room, AIT Library
Crowd Power: Crowdfunding for small scale RE (webinar)

Robert Pasicko, UNDP Alternative Finance Lab

This webinar will introduce the concept of crowdfunding and existing models, exploring why this is an important tool for energy and development. It will describe how a crowdfunding campaign works, providing examples of small-scale renewable energy projects.

11:45 - 13:15 **Lunch**

13:15 - 18:00 Session 28 @ Energy lab & workshop area
Do-it-Together workshops on solar energy systems

Alex Filippidis & Katerina Anastasiadis, SEYN

Group workshops on building solar energy systems

20:00 - 21:30 Film Screening @ Milton E. Bender Auditorium
TOMORROW'S POWER, by Amy Miller (TBC)

Feature-length documentary that showcases three communities around the world – in Colombia, Germany and Gaza - and their responses to economic and environmental emergencies they are facing. Film producer, Amy Miller, will virtually join participants for questions and debate.

08:45 - 09:00 **Sign-up and Recap**

09:00 - 10:30 Session 30 @ Training room, AIT Library
From idea to action: speedy presentations

Participants have the chance to present their project ideas using the speedy presentation method "Pecha Kucha".

10:30 - 10:45 **Coffee Break**

10:45 - 11:45 Session 31 @ Training room, AIT Library
Youth-led community renewable energy and climate action

Open space for discussion on the Youth Energy Academy, project ideas, and ways forward to empower youth-led climate action through community renewable energy.

11:45 - 13:15 **Lunch**

13:15 - 18:00 Session 32 @ Energy lab & workshop area
Do-it-Together workshops on solar energy systems

Alex Filippidis & Katerina Anastasiadis, SEYN

Finalizing solar energy systems to be sent to the Khlong 6 community and the AIT community farm.

18:00 Session 33 @ Energy lab & workshop area
Wrap up

Closing session and awarding of Certificates of Completion

20:00 **Farewell Group Dinner**