



JASTIP-WP2 Activity Report

JASTIP

Professor Hideaki Ohgaki
Japan ASEM
Science, Technology and
Innovation Platform
Institute of Advanced Energy
Kyoto University

Energy & Environment Joint Lab.(WP2)

- Place : National Science and Technology Development Agency, Thailand
 - President, Dr. Narong Sirilertworakul
 - Project leader : Dr. Thumrongrut Mungcharoen
 - Japan side representative : Prof. Hideaki Ohgaki/Keiichi Ishihara
- Function
 - Promotion and coordination of collaboration researches (including “JASTIP-NET” CRs)
 - Technology Transfer
 - Training young researchers (students)



2016 Activities

- Sing up of the collaboration research and coordination agreement
- Collaboration Research, Lab work (+ individual budget)
- Annual workshop and steering committee meeting
- Researcher/students dispatch and invitation for collaboration research
- Promotion of “JASTIP-NET” collaboration research



Collaborative Research Agreement
on
Japan-ASEAN Science, Technology and Innovation Platform on
“Energy and Environment”
between
Kyoto University
and
National Science and Technology Development Agency

This Agreement is made and entered into this 23 day of September, 2016 (the “Effective Date”) at 111 Thailand Science Park, Phahonyothin Road, Khlong Nueng, Khlong Luang, Pathum Thani, 12120, Thailand, by and between

Appendix A Project Descriptions

Project Directors

KU Project Director: Prof. Dr. Hideaki Ohgaki, Institute of Advanced Energy, Kyoto University

NSTDA Project Director: Asst.Prof. Dr.Suthum Patumsawad

Appendix A-1 Photocatalytic conversion of biomass to value-added fuels and chemicals

Collaboration responsibilities

Evaluations of photocatalytic conversion of biomass to value-added fuels and chemicals and complementation to enzymatic process, and fabrication of high-selectivity photocatalysts and development of photo-bio flow reactor for conversion of lignocellulose-derive components to chemicals

Coordination Activities Agreement

This Agreement is made and entered into this 1 day of April 2016 (the “Effective Date”) at 111 Thailand Science Park, Phahonyothin Road, Khlong Nueng, Khlong Luang, Pathum Thani, 12120, Thailand, by and between

Kyoto University (hereinafter referred to as “KU”), located at 36-1, Yoshida-honmachi, Sakyo-ku, Kyoto-shi, Kyoto 606-8501, JAPAN, represented by President Juichi Yamagiwa, as evidenced by Certificate of Complete Historical Records dated on the 1st day of October, 2014 (A.D.), Appendix A attached hereto, and

National Science and Technology Development Agency (hereinafter referred to as “NSTDA”) located at 111 Thailand Science Park, Phahonyothin Road, Khlong Nueng, Khlong Luang, Pathum Thani, 12120, Thailand, represented by Narong Sirilertworakul, as evidenced by order of National Science and Technology Development Agency Board of Directors No. 1/2559 dated on the 25 day of January B.E.2559 (A.D.2016), Appendix B attached hereto.

Objectives

This Coordination Activities Agreement describes the tasks that NSTDA will perform to facilitate and promote the JASTIP WP2 activities.

WP2 2nd Annual Workshop

Feb.3, 2017 @ Pullman Hotel, Bangkok



Joint Seminar under JASTIP program

—Innovations in Application of Sustainable Sources for Material Synthesis and Energy Devices—

Participants Graduate School of Engineering, Kyoto University

N. Sano (Associate Professor)

Shoichi Amiuchi (M2)

Kensuke Tsubouchi (M2)

Tepei Hata (M2)

Tomohiro Shimizu (M1)

Daiki Hirai (M1)

Schedule

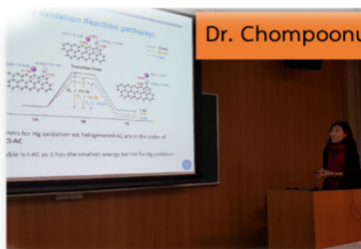
August 31 Depart from KIX

September 1 Seminar in NANOTEC Center/NSTDA

September 2 Lab visit atCenter of Excellence in Particle Technology,
Chularongkorn University

September 3 Depart from Bangkok

JASTIP seminars



at Kyoto Univ.
feb2016



40 days Students Internship Program

supported by

“Wild and Wise program” Kyoto U.

- JASTIP-WP2 CR groups invite 10 students from Thailand
 - KMITL: 2, KMUTT: 5, Chularongkorn: 3

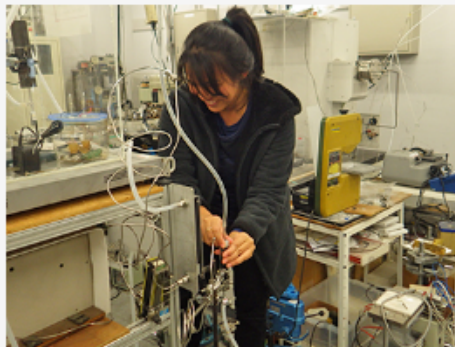


JASTIP student exchange program

The program helped deepen the friendship between the Thai students and their Kyoto counterparts, while at the same time marking a new milestone in the research partnership among the participating institutions, including Chulalongkorn University as well as the National Nanotechnology Center (NANOTEC) of the Thailand National Science and Technology Development Agency (NSTDA).



Chulalongkorn University students conducting experiments in the separation engineering laboratory



Another intern at work

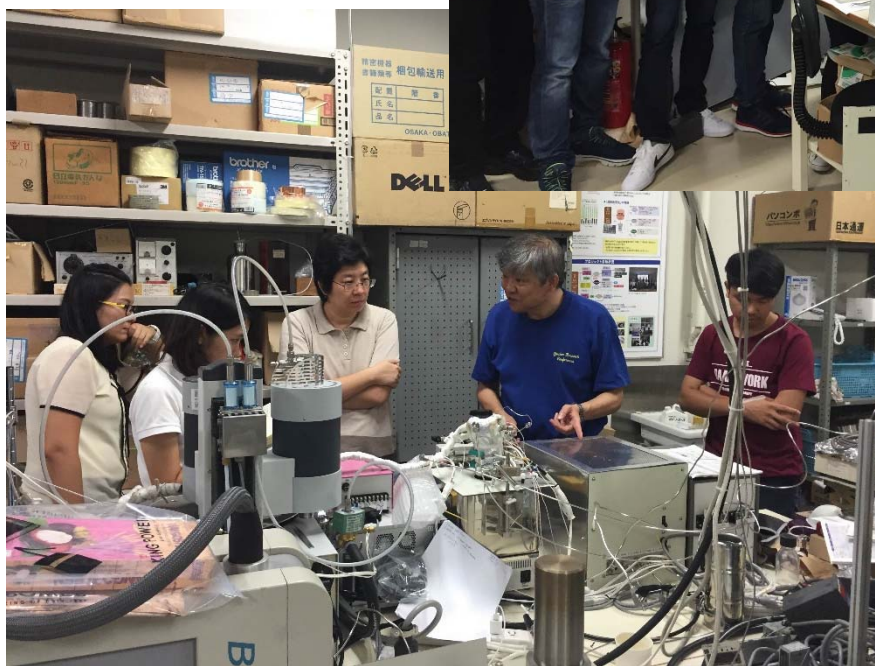
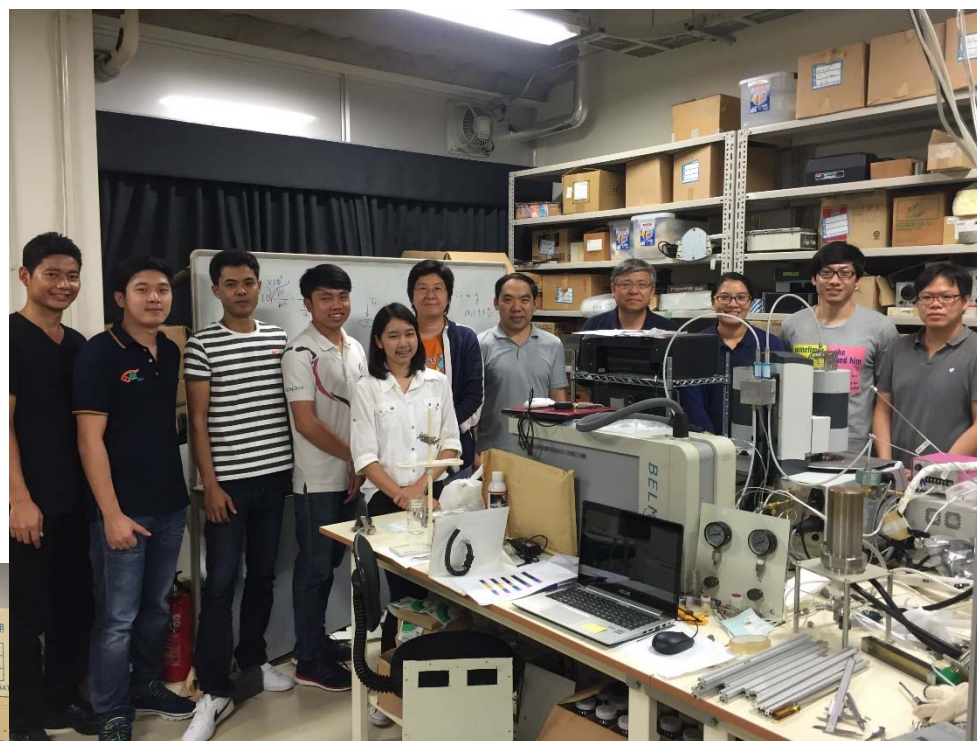


Enjoying fall foliage at Ohharano Shrine



The students from Sano's team joined the JASTIP seminar in NANOTEC and visited Chulalongkorn Univ. for lab tour and research discussion

Training at Kyoto University Sep. – Oct., 2016



Supported by SATREPS

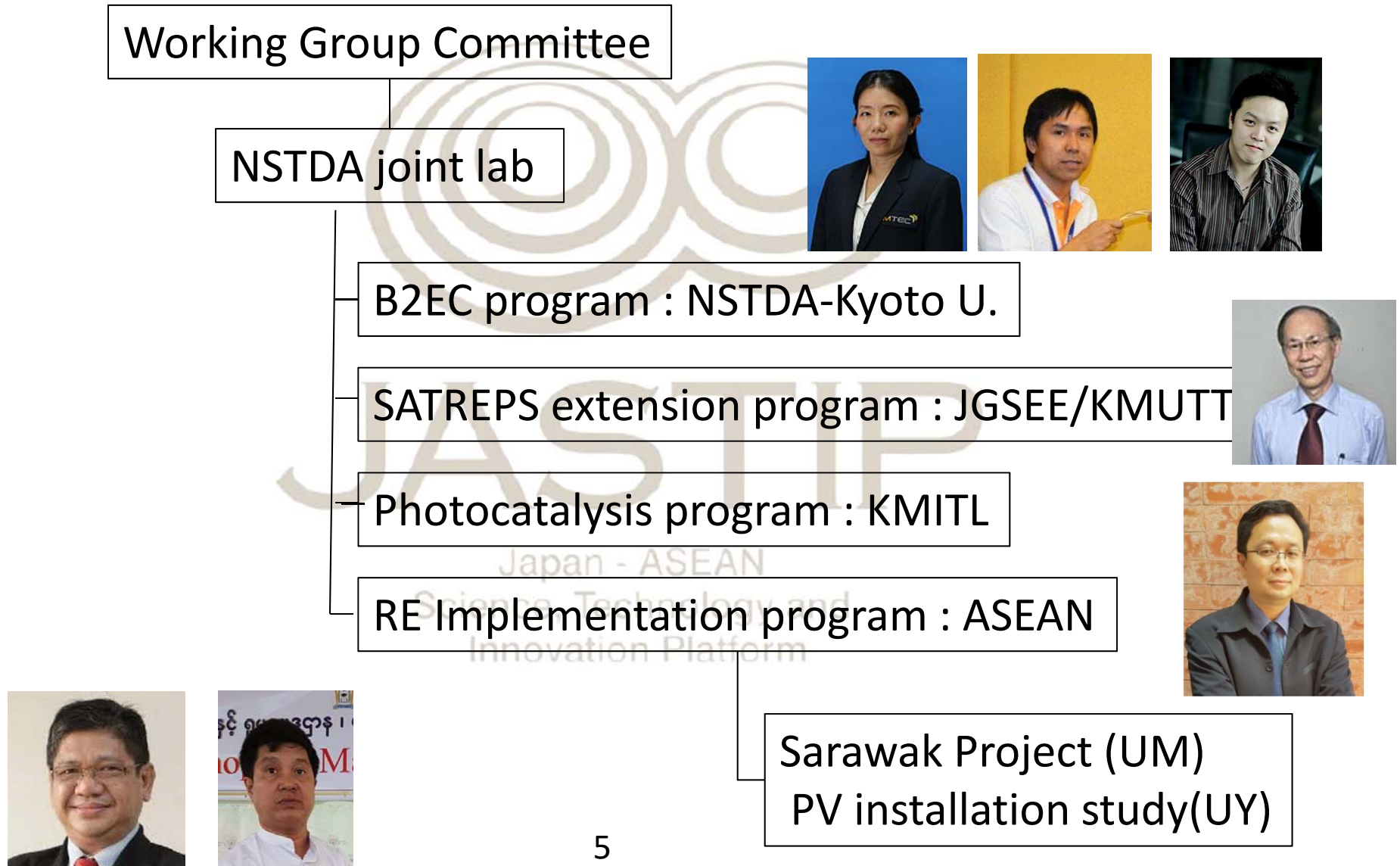
Training of 1 Laos researcher at Kyoto University Jan. 9 – Feb. 7, 2017



Dr. Xayalak from Laos National University is using
a set of thermoanalysis equipment

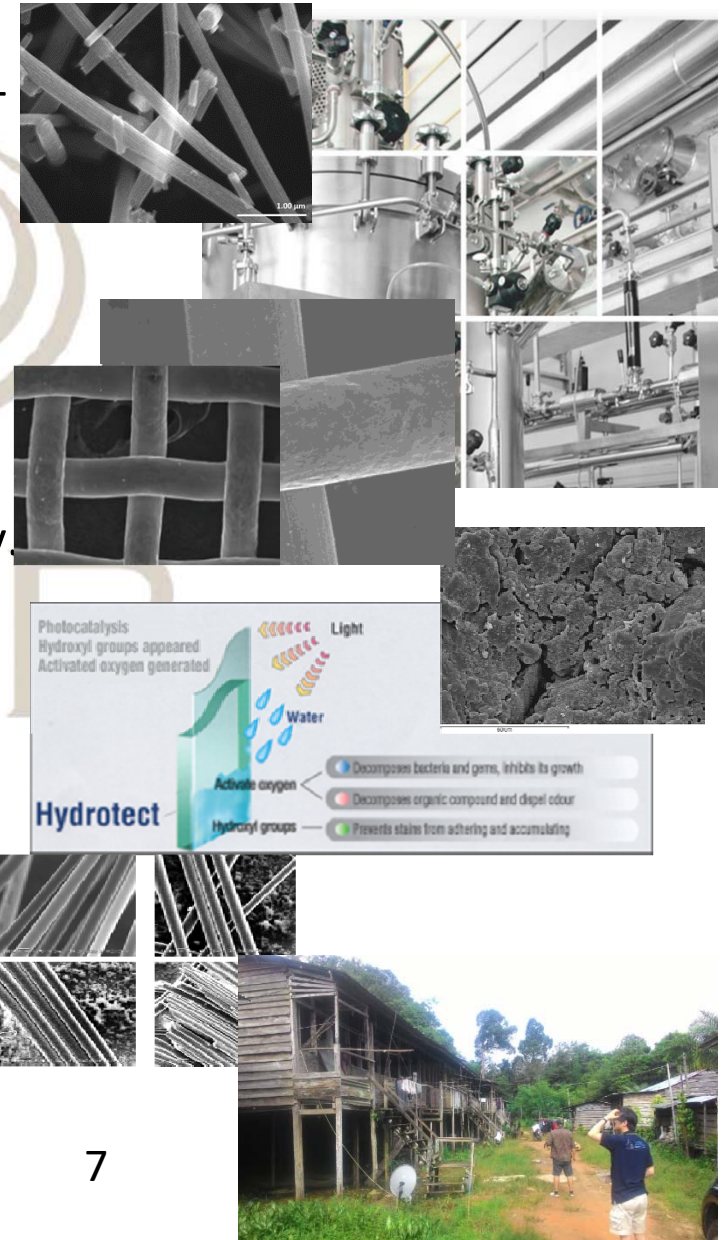
supported by a JICA fund

Structure of the Joint Lab.



Joint Research Activities

- ❑ Photocatalytic conversion of biomass to value-added fuels and chemicals (NSTDA-JGSEE/KMUTT-Kyoto Univ.)
- ❑ Development of Carbon Materials from Biomass for Energy Storage Applications(NSTDA- Kyoto Univ.)
- ❑ Innovations in Biomass Application for Catalytic Material Synthesis and Energy Devices (NSTDA-Chulalongkorn Univ.-Kasetsart Univ.-Mahidol Univ. VISTEC-Naresuan Univ.-Kyoto Univ.)
- ❑ Extension of “Solvent Treatment Method” developed by SATREPS program to ASEAN region (JGSEE/KMUTT-Kyoto Univ.)
- ❑ Development of New Functional Materials for Energy and Environment (KMITL-RMUTT-Kyoto Univ.)
- ❑ RE implementation (University of Malaya-Kyoto Univ., University of Yangon-Kyoto Univ.)



JASTIP-net 2016 Research Themes

(2) Environment and Energy Joint Laboratory

(Core Researchers: Prof. Hideaki Ohgaki, Prof. Keiichi Ishihara)

- **Research Theme:**

1. Studies on Rural Electrification by Renewable Energy.

2. Studies on Implementation of Renewable Energy in the ASEAN region.

3. Studies on Energy Development in the ASEAN region.

We will revise next 2017 application.

JASTIP-Net WP2 2016-

- Nasrudin Abd Rahim, University of Malaya
"Study on energy usage and quality of life for rural community through rural electrification using renewable energy"
- Mohd Amran Mohd Radzi, Universiti Putra Malaysia
"Optimal design of green energy systems based on multi-renewable resources for rural electrification"
- Takuo Nakayama Kyoto University – VNU, Hanoi
"Local energy governance" and Community renewable energy (CRE) in Vietnam"
- Chatchawan Chaichana, Chiang Mai University
"Community renewable energy implementation in Thailand "



JASTIP-Net WP3 (+WP2) 2016-

- Euis Hermiati, LIPI - NSTDA (Dr. Verwat)

“Development of integrated process for conversion of sugarcane trash to bioethanol and value-added chemicals”

Japan - ASEAN
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Innovation Platform