

# Detailed Programme

## TECHNICAL SESSIONS - ORAL PRESENTATIONS

**Date:** 28 November 2018

**Time:** 14.00-15.30

**Conference:** SEE 2018

**Room:** Ravipa 1

**Topic F:** Environmental and Climate Science, and Mitigation Technology

**Chairperson:** Prof. Ralf Conrad

| TIME        | TITLE OF PRESENTATION   | Code |
|-------------|---|------|
| 14.00-14.10 | <b>Introduction of the session by the chairperson</b>   | -    |
| 14.10-14.30 | <b>Temperature effects on structure and function of different soil methanogenic microbial communities</b><br><i>Pengfei Liu, Melanie Klose, Ralf Conrad</i>   | F-01 |
| 14.30-14.50 | <b>Modeling land use and climate changes impacts on hydrological processes of Nam Rom river basin in Vietnam</b><br><i>Ngô Thanh Sơn, Hoàng Lê Hoàng, Trần Trọng Phương</i>   | F-03 |
| 14.50-15.10 | <b>Effect of biochar and its co-application on water use and N-leaching in organic rice cultivation</b><br><i>Udomluk Wiseth-aksorn, Sirintornthep Towprayoon, Amnat Chidthaisong, Tassanee Jiaphasu-anan, Chimuca Buddhagoon</i> | F-17 |
| 15.10-15.30 | <b>Impact of climate on the crop water requirement for sugarcane cultivation in Pakistan</b><br><i>Nageen Farooq, Shabbir H. Gheewala</i>   | F-24 |

**Conference:** SEE 2018

**Room:** River 3

**Special BBB Session:** Efficient Biomass Conversion Technologies for Biofuel and Bioenergy Production (CEE Research Program)

**Topic A:** Bioenergy and Biofuels

**Chairperson:** Dr. Sumate Chairapat

| TIME        | TITLE OF PRESENTATION   | Code |
|-------------|---|------|
| 14.00-14.10 | <b>Introduction of the session by the chairperson</b>   | -    |
| 14.10-14.30 | <b>Temperature effect on pretreatment of palm empty fruit bunch for oil recovery and potassium removal</b><br><i>Khwanakul Natisupacheevin, Kanyarat Saritpongteeraka, Sumate Chairapat</i>   | A-29 |
| 14.30-14.50 | <b>Enhancing CH<sub>4</sub> production potential of rubber wastewater using mixed inocula</b><br><i>Tharaporn Ariyapong, Kanyarat Saritpongteeraka, Duangporn Kantachote, Suppasil Maneerat, Sumate Chairapat</i>                                     | A-30 |
| 14.50-15.10 | <b>Evaluation of physicochemical property of selected oil palm biomass for using as solid biofuel via combustion and co-firing</b><br><i>Phonthip Khongphakdi, Arkom Palamanit, Yuthana Tirawanichakul, Neeranuch Phusunti, Racha Dejchanchaiwong</i> | A-31 |
| 15.10-15.30 | <b>Effects of low temperature hydrothermal pretreatment on biomethane potential of ensilaged Napier grass</b><br><i>Jutawan Kaewsung, Kanyarat Saritpongteeraka, Sumate Chairapat</i>   | A-32 |

Conference: SEE 2018

Room: River 2

Special SATREPS Session: Science and Technology Research Partnership for Sustainable Development

Topic C: Other Energy Conversion Technologies

Chairperson: Prof. Kouichi Miura

| TIME        | TITLE OF PRESENTATION   | Code |
|-------------|---|------|
| 14.00-14.10 | Introduction of the session by the chairperson  | -    |
| 14.10-14.30 | <b>CRIEPI research activities on SATREPS project: Evaluation of combustion/gasification reactivity of degradative solvent extraction products from low rank coals and biomass</b><br><i>Satoshi Umemoto, Atsushi Ikeda, Kenji Tanno, Shiro Kajitani, Hisao Makino</i> | C-06 |
| 14.30-14.50 | <b>Study on the char gasification reactivity and properties of residue prepared by the degradative solvent extraction</b><br><i>Atsushi Ikeda, Satoshi Umemoto, Kenji Tanno, Shiro Kajitani, Hisao Makino</i>   | C-03 |
| 14.50-15.10 | <b>Sulfur distribution during solvent extraction of coals</b><br><i>Katsuyasu Sugawara, Takahiro Kato, Hirokazu Okawa</i>   | C-04 |
| 15.10-15.30 | <b>Production of hollow carbon fiber from a precursor produced from the degradative solvent extraction of biomass and low rank coal</b><br><i>Janewit Wannapeera, Ryuichi Ashida, Nakorn Worasuwanakrak, Hideaki Ohgaki, Kouichi Miura</i>                            | C-01 |

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Date: 28 November 2018

Time: 16.00-17.30

Conference: SEE 2018

Room: Ravipa 1

Topic F: Environmental and Climate Science, and Mitigation Technology

Chairperson: Prof. Shabbir H. Gheewala

| TIME        | TITLE OF PRESENTATION   | Code |
|-------------|---|------|
| 16.00-16.10 | Introduction of the session by the chairperson  | -    |
| 16.10-16.30 | <b>Behavior on transformation of carbon in biodrying process for the optimization of moisture reduction under tropical climate</b><br><i>Noppharit Sutthasil, Tomonori Ishigaki, Satoru Ochiai, Masato Yamada, Chart Chiemchaisri</i> | F-13 |
| 16.30-16.50 | <b>Degradation of methylene blue dye using Ag and Zr doped Titania photocatalyst: Effect of calcination temperature</b><br><i>Pornrat Sanitnon, Siriluk Chiarakorn, Chamorn Chawengkijwanich</i>                                      | F-14 |
| 16.50-17.10 | <b>Biogas purifying with two stages of CO<sub>2</sub> elimination using MEA and calcium hydroxide solutions</b><br><i>Surajitr Pramuang</i>   | F-15 |
| 17.10-17.30 | <b>Effect of intermittent fluidization in an anaerobic membrane bioreactor treating seafood processing wastewater</b><br><i>Araya Thongsai, Pongsak Noophan, Sumate Chairapat</i>   | F-20 |

Conference: SEE 2018

Room: River 3

Topic A: Bioenergy and Biofuels

Chairperson: Dr. Pумыos Vallikul

| TIME        | TITLE OF PRESENTATION  | Code |
|-------------|--|------|
| 16.00-16.10 | Introduction of the session by the chairperson   | -    |
| 16.10-16.30 | <b>Torrefication study of Indonesian crop residues subject to open burning</b><br><i>Ade Andini, Sebastien Bonnet, Patrick Rousset, Suthum Patumsawad, Adisak Pattiya</i>  | A-01 |
| 16.30-16.50 | <b>Sugar production from catalytic hydrolysis of bagasse under hot compressed water</b><br><i>Khatiya Weerasai, Weerawan Laosiripojana, Chularat Sakdaronnarong, Navadol Laosiripojana</i>   | A-17 |
| 16.50-17.10 | <b>Conversion of durian peel waste into chemicals and hydrochar by hydrothermal carbonization</b><br><i>Dewi Agustina Iryani, Satoshi Kumagai, Moriysu Nonaka, Tsuyoshi Hirajima</i>   | A-19 |
| 17.10-17.30 | <b>Biomethane and valuable chemicals production from seaweeds and their derived digestates by coupling anaerobic digestion and pyrolysis</b><br><i>Mohamed Ali Wahab, Katharina Kebelmann, Bernhard Schartel, Gareth Griffiths</i> | A-25 |
| 17.30-17.50 | <b>Chemical products characterization during the fast and slow pyrolysis of different algal biomasses</b><br><i>Mohamed Ali Wahab, Katharina Kebelmann, Jaspreet Kaur, Gareth Griffiths</i>  | A-26 |

Conference: SEE 2018

Room: River 2

Special SATREPS Session: Science and Technology Research Partnership for Sustainable Development

Topic C: Other Energy Conversion Technologies

Chairperson: Dr. Nakorn Worasuwanarak

| TIME        | TITLE OF PRESENTATION  | Code |
|-------------|--|------|
| 16.00-16.10 | Introduction of the session by the chairperson   | -    |
| 16.10-16.30 | <b>Desulfurization of coals by liquid phase oxidation</b><br><i>Takahiro Kato, Hirokazu Okawa, Katsuyasu Sugawara</i>  | C-05 |
| 16.30-16.50 | <b>Examination of propensity to spontaneous heating of the solvent treated coal</b><br><i>Kouichi Miura, Trairat Muangthong-on, Janewit Wannapeera, Hideaki Ohgaki</i>   | C-07 |
| 16.50-17.10 | <b>Investigating combustion characteristics of coal and coal residue using a high-temperature drop tube furnace</b><br><i>Supachita Kerkkaiwan, Kouichi Miura, Suneerat Fukuda</i>   | C-09 |
| 17.10-17.30 | <b>Production of activated carbon fiber from the extracts produced from the degradative solvent extraction of rice straw</b><br><i>Janewit Wannapeera, Ruangdet Fugtuan, Nakorn Worasuwanarak, Hideaki Ohgaki, Kouichi Miura</i> | C-02 |

## TECHNICAL SESSIONS - ORAL PRESENTATIONS

Date: 29 November 2018

Time: 11.00-12.30

Conference: SEE 2018

Room: Ravipa 1

Special CTI Session: Climate Change Technology and Innovation (CEE Research Program)

Topic F: Environmental and Climate Science, and Mitigation Technology

Chairperson: Dr. Sirintornthep Towprayoon

| TIME        | TITLE OF PRESENTATION   | Code |
|-------------|---|------|
| 11.00-11.20 | <b>Strategic development of climate smart agriculture: Recent experiences in Japan</b><br><i><u>Kazuyuki Yagi</u></i>   | F-35 |
| 11.20-11.30 | <b>Impact of climate change on water resources in the upper Chao Phraya river basin, Thailand</b><br><i><u>Chaiwat Ekkawatpanit</u>, <u>Weerayuth Pratoomchai</u></i>   | F-34 |
| 11.30-11.40 | <b>Seasonal variation in evapotranspiration and soil water content in cassava field in northeast Thailand: first-year results</b><br><i><u>Sittisak Moukomla</u>, <u>Jiratiwan Kruasilp</u>, <u>Kridsakron Auynirundronkool</u>, <u>Panu Srestasathierna</u>, and <u>Rattawat Wasuhiranyrith</u></i>                                    | F-28 |
| 11.40-11.50 | <b>Estimating the gross primary production of secondary dry dipterocarp forest using vegetation photosynthesis model</b><br><i><u>Phan Kieu Diem</u>, <u>Amnat Chidthaisong</u>, <u>Pariwate Varnakovida</u>, <u>Rungnapa Kaewthongrach</u>, <u>Montri Sanwangsri</u></i>   | F-29 |
| 11.50-12.00 | <b>Strong El niño impacts on micro-climate variables and soil conditions in dry dipterocarp forests, Thailand</b><br><i><u>Rungnapa Kaewthongrach</u>, <u>Montri Sanwangsri</u>, <u>Pariwate Varnakovida</u>, <u>Amnat Chidthaisong</u></i>   | F-30 |
| 12.00-12.10 | <b>Estimating carbon stock and sequestration for supporting low carbon developments: The case of Pak Nam Prasae, Rayong province</b><br><i><u>Monthira Yuttitham</u>, <u>Nawinda Thongantang</u>, <u>Natchanok Pangsang</u>, <u>Ratiya Sasithorn</u>, <u>Satita Janthakhin</u>, <u>Sirijit Jongjityotin</u>, <u>Suchada Chanwan</u></i> | F-31 |
| 12.10-12.20 | <b>Assessment of soil organic carbon dynamics under long-term rice cultivation in Thailand</b><br><i><u>Nittaya Cha-un</u>, <u>Amnat Chidthaisong</u>, <u>Sirintornthep Towprayoon</u></i>  | F-32 |
| 12.20-12.30 | <b>Net ecosystem CO<sub>2</sub> exchange over a dry dipterocarp forest in Phayao, Northern Thailand</b><br><i><u>Montri Sanwangsri</u>, <u>Pimsiri Suwanapat</u>, <u>Amnat Chidthaisong</u>, <u>Daisuke Komori</u>, <u>Wonsik Kim</u></i>   | F-33 |

Conference: SEE 2018

Room: Ravipa 2

Topic A: Bioenergy and Biofuels

Chairperson: Prof. Christoph Menke

| TIME        | TITLE OF PRESENTATION   | Code |
|-------------|---|------|
| 11.00-11.10 | Introduction of the session by the chairperson  | -    |
| 11.10-11.30 | <b>Replacing firewood with biogas from animal waste for commercial heating and cooking applications: Case Study of a College in Zambia</b><br><i>Pritchard Mukuka, Ralph Sims, Phil Murray</i>                  | A-24 |
| 11.30-11.50 | <b>To develop biogas digesters to community renewable energy in Vietnam: A feasibility study in Can Tho, Vietnam, Mekong Delta Region</b><br><i>Ryo Takeuchi, Nam Tran Sy, Thao Huynh Van, Khanh Huynh Cong</i> | A-12 |
| 11.50-12.10 | <b>Bioethanol production potential from maize stover and the required logistical resources to meet Zambia's ethanol-blended petrol requirements</b><br><i>Mwansa Kaoma, Shabbir Gheewala</i>                    | A-14 |
| 12.10-12.30 | <b>A simulation-optimization approach for the assessment of bioenergy supply chains under uncertainty</b><br><i>Tobias Zimmer, Florian Diehlmann, Simon Glöser-Chahoud, Frank Schultmann</i>                    | A-11 |
| 12.30-12.50 | <b>Biomass based CHP or triple generation: Sustainable district energy demand coverage of the future</b><br><i>Horst Berthold Kreimes, Jürgen Bender</i>  | A-36 |

Conference: SEE 2018

Room: River 3

Topic E: Energy and Environmental Policy

Chairperson: Dr. Athikom Bangviwat

| TIME        | TITLE OF PRESENTATION   | Code |
|-------------|---|------|
| 11.00-11.10 | Introduction of the session by the chairperson  | -    |
| 11.10-11.30 | <b>Effect of forced outage rate (FOR) on loss of load expectation (LOLE) in the lower south of Thailand</b><br><i>Apinya Puapattanakul, Boonrod Sujjakulnukit, Athikom Bangviwat</i>                                | E-01 |
| 11.30-11.50 | <b>Japan-Indonesia cooperation policies to enhance the renewable energy penetration into energy market</b><br><i>Briandhika Utama, Tetsuo Tezuka</i>  | E-05 |
| 11.50-12.10 | <b>Assessing environmental sustainability of highland maize cultivation practices in northern Thailand</b><br><i>Sarunnoud Phuphisith, Titaporn Supasri, Sate Sampattagul</i>                                       | E-03 |
| 12.10-12.30 | <b>Sensitivity of changing amount and price of crude palm oil on electricity generation cost in Krabi power plant</b><br><i>Apinya Puapattanakul, Jaruwan Chontanawat, Kanchana Sripruetkiat, Athikom Bangviwat</i> | E-06 |

Conference: SEE 2018

Room: River 2

Topic C: Other Energy Conversion Technologies

Chairperson: Prof. Wei-Hsin Chen

| TIME        | TITLE OF PRESENTATION   | Code |
|-------------|---|------|
| 11.00-11.10 | Introduction of the session by the chairperson  | -    |
| 11.10-11.30 | <b>Kinetic study on CO<sub>2</sub> and steam gasification of the fast pyrolysis coal char using the temperature-programmed reaction (TPR) technique</b><br><i>Supachita Krerkkaiwan, Kouichi Miura, Suneerat Fukuda</i> | C-10 |
| 11.30-11.50 | <b>Influence of material's properties on TEG performance</b><br><i>Yi-Xian Lin, Wei-Hsin Chen</i>   | C-11 |
| 11.50-12.10 | <b>Optimization of syngas yield from catalytic partial oxidation of methane in a Swiss-roll reactor</b><br><i>Kuo-Lun Chiu, Wei-Hsin Chen</i>   | C-12 |
| 12.10-12.30 | <b>Investigation of n-Dodecane hydroisomerization catalyzed by SAPO-11 supported non-noble metal catalysts</b><br><i>Rungnapa Kaewmesri, Navadol Laosiripojana, Kajornsak Faungnawakij</i>                              | A-16 |

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Date: 29 November 2018

Time: 14.00-15.30

Conference: SEE 2018

Room: Ravipa 1

Topic F: Environmental and Climate Science, and Mitigation Technology

Chairperson: Dr. Kazuyuki Yagi

| TIME        | TITLE OF PRESENTATION  | Code |
|-------------|--|------|
| 14.00-14.10 | Introduction of the session by the chairperson   | -    |
| 14.10-14.30 | Modeling for estimating energy loss and CO <sub>2</sub> emissions from forest burning<br><i>Sermkiat Jomjunyong, Nobutaka Ito</i>  | F-07 |
| 14.30-14.50 | Assessment of selected three satellite precipitation products at a sub-daily scale<br><i>Hoang Thi-Trang, Kasemsan Manomaiphiboon, Nosha Assareh, Nkrintra Singhratna, Penwadee Chewapongpun</i>     | F-08 |
| 14.50-15.10 | Assessment of vegetation drought using MODIS derived VCI and CHIRPS precipitation data: Case study in Taung Kyune reserved forest in Myanmar<br><i>Kyu Kyu Sein, Amnat Chidthaisong, Uday Pimple</i> | F-11 |
| 15.10-15.30 | Assessment of vegetation fires in Myanmar based on NOAA and MODIS satellite data<br><i>May Yadanar Oo, Sébastien Bonnet, Savitri Garivait</i>  | F-25 |

Conference: SEE 2018

Room: River 3

Topic B: Renewable Energy and Smart Energy Systems

Chairperson: Prof. Robert Exell

| TIME        | TITLE OF PRESENTATION  | Code |
|-------------|--|------|
| 14.00-14.10 | Introduction of the session by the chairperson   | -    |
| 14.10-14.30 | A power state modeling for energy disaggregation using multi-dimensional classification<br><i>Bundit Buddhahai, Waranyu Wonseree, Pattana Rakkwamsuk</i>   | B-04 |
| 14.30-14.50 | Performance of 2-stage Savonius wind turbines at low speed<br><i>Suppachai Jina, Wattana Ratismith, Passakorn Thongthung, Sunisa Suchat, Chainuson Kasagepongsan, Kusumal Chalermnayanont, Montri Suklueng</i> | B-08 |
| 14.50-15.10 | On the high resolution wind resource mapping for Thailand<br><i>Jompob Waewsak, Lattawan Niyomtham, Chana Chuncham, Yves Gagnon</i>  | B-05 |
| 15.10-15.30 | Study on impact of renewable energy on QOL in rural communities in Myanmar<br><i>Hla Toe, Khin Khin Kyaw, Hideaki Ohgaki</i>   | B-09 |

Conference: SEE 2018

Room: River 2

Special SATREPS Session: Science and Technology Research Partnership for Sustainable Development

Topic A: Bioenergy and Biofuels

Chairperson: Dr. Noriyuki Okuyama

| TIME        | TITLE OF PRESENTATION  | Code |
|-------------|--|------|
| 14.00-14.10 | Introduction of the session by the chairperson   | -    |
| 14.10-14.30 | Effect of solvent recycling on solvent treatment of rice straw at 350 °C<br><i>Supachai Jadsadajerm, Kouichi Miura, Nakorn Worasuwannarak</i>    | A-04 |
| 14.30-14.50 | Effect of solvent on solvent treatment of rice straw and Leucaena at 350 °C<br><i>Supachai Jadsadajerm, Kouichi Miura, Nakorn Worasuwannarak</i> | A-05 |
| 14.50-15.10 | Hydrogenation of solvent-extracted rice straw by zeolite catalysts<br><i>Kenji Murakami, Shin Kumagai, Ayano Nakamura, Katsuyasu Sugawara</i>    | A-06 |
| 15.10-15.30 | Upgrading mechanism of biomass in degradative solvent extraction<br><i>Ryuichi Ashida, Ryo Takahashi, Motoaki Kawase, Kouichi Miura</i>          | A-07 |

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Date: 29 November 2018

Time: 16.00-17.30

Conference: SEE 2018

Room: Ravipa 1

Topic F: Environmental and Climate Science, and Mitigation Technology

Chairperson: Dr. Sebastien Bonnet

| TIME        | TITLE OF PRESENTATION  | Code |
|-------------|--|------|
| 16.00-16.10 | Introduction of the session by the chairperson   | -    |
| 16.10-16.30 | Assessment of temporal variations of burned areas and carbon emissions from vegetation fires in Southeast Asia using GFED data<br><i>Nway Ei Aung, Sebastien Bonnet, Savitri Garivait</i>                            | F-26 |
| 16.30-16.50 | Relationships between on-road transport emissions and ambient particulate matter concentration in the Bangkok Metropolitan Region during 2007-2015<br><i>Pattarapoom Phuengyaem, Agapol Junpen, Savitri Garivait</i> | F-36 |
| 16.50-17.10 | Assessment of potential health benefit from particulate matter emission reduction from the power sector in Thailand<br><i>Thao Pham Thi Bich, Satoru Chatani, Savitri Garivait</i>                                   | F-37 |
| 17.10-17.30 | Improving the estimation of burned area from biomass open burning in the Greater Mekong Sub-Region using high resolution satellite products<br><i>Orachorn Kamnoet, Agapol Junpen, Savitri Garivait</i>              | F-38 |



Conference: SEE 2018

Room: River 3

Topic B: Renewable Energy and Smart Energy Systems

Chairperson: Prof. Robert Exell

| TIME        | TITLE OF PRESENTATION  | Code |
|-------------|--|------|
| 16.00-16.10 | Introduction of the session by the chairperson   | -    |
| 16.10-16.30 | <b>Hydropower's future in light of energy turnaround and market liberalization: The Swiss experience</b><br><i>Ludovic Gaudard, <u>Franco Romerio</u></i>  | B-03 |
| 16.30-16.50 | <b>Simulation and investigation of the solar absorption cooling system in Thailand</b><br><i><u>Sinchote Keeratianant</u>, Surapong Chirarattananon</i>  | B-01 |
| 16.50-17.10 | <b>Local back surface field (LBSF) for solar cell by using flash foam stamp method</b><br><i><u>Kamonchanok Mekmork</u>, Thipwan Fangsuwannarak</i>  | B-02 |
| 17.10-17.30 | <b>Standard testing condition investigations and field visual inspections of PV modules installed in Thailand</b><br><i><u>Yaowanee Sangpongsanont</u>, Dhirayut Chenvidhya, Surawut Chuangchote, Krissanapong Kirtikara</i> | B-06 |

Conference: SEE 2018

Room: River 2

Topic A: Bioenergy and Biofuels

Chairperson: Dr. Ryuichi Ashida

| TIME        | TITLE OF PRESENTATION   | Code |
|-------------|---|------|
| 16.00-16.10 | Introduction of the session by the chairperson  | -    |
| 16.10-16.30 | <b>Effect of the recycling solvent containing derived components from coal and biomass to solvent treatment process</b><br><i><u>Koji Sakai</u>, Noriyuki Okuyama</i>               | A-22 |
| 16.30-16.50 | <b>Optimization of sugarcane trash fractionation process using aqueous glycerol</b><br><i><u>Chayanon Chotirotsukon</u>, Marisa Raita, Verawat Champreda, Navadol Laosiripojana</i> | A-10 |
| 16.50-17.10 | <b>Performance of bagasse fractionation process via flow through reactor</b><br><i><u>Suchat Pongchaiphol</u>, Marisa Raita, Verawat Champreda, Navadol Laosiripojana</i>           | A-15 |
| 17.10-17.30 | <b>Coupled effect of torrefaction and blending on chlorine removal</b><br><i><u>Wanida Kajina</u>, Patrick Rousset</i>  | A-13 |

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## TECHNICAL SESSIONS - ORAL PRESENTATIONS

Date: 30 November 2018

Time: 11.00-12.30

SYMPOSIUM

Room: Chatrium Ballroom

Theme: STI for Sustainable Development Goals: How Can We Transfer the ASEAN-Japan Collaboration Research Outcomes in Bioenergy Field?

| TIME        | TITLE OF PRESENTATION  |
|-------------|--|
| 11.00-11.05 | <b>Introduction and aims of the symposium</b><br><i>Prof. H. Ohgaki</i> (Kyoto University, Japan)  |
| 11.05-11.15 | <b>International Collaboration Program for STI for SDGs in JST</b><br><i>Mr. M. Sato</i> (JST Singapore, Japan)  |
| 11.15-11.40 | <b>Biofuel policy in Thailand</b><br><i>Dr. S. Charojrochkul</i> (NSTDA, Thailand)   |
| 11.40-12.05 | <b>Report from e-Asia 1: Development of functional nanocarbon-based catalysts for biomass conversion processes</b><br><i>Prof. A. Quitain</i> (Kumamoto University, Japan) |
| 12.05-12.30 | <b>Report from e-Asia 2: Feasibility study on social implementation of bioenergy in East Asia</b><br><i>Prof. A. Nishijima</i> (Waseda University, Japan)                  |

Conference: SEE 2018

Room: Ravipa 1

Topic F: Environmental and Climate Science, and Mitigation Technology

Chairperson: Dr. Sate Sampattagul

| TIME        | TITLE OF PRESENTATION   | Code |
|-------------|---|------|
| 11.00-11.10 | <b>Introduction of the session by the chairperson</b>   | -    |
| 11.10-11.30 | <b>Comparison of greenhouse gas emissions of different biomass management scenarios in Indonesian peatlands</b><br><i>María José Rodríguez, Vásquez, Anthony Benoist, Jean-Marc Roda, Mathieu Fortin</i>  | F-04 |
| 11.30-11.50 | <b>Assessment of climate pollutant emissions from crop residues open burning in Indonesia</b><br><i>Ade Andini, Sebastien Bonnet, Patrick Rousset</i>   | F-05 |
| 11.50-12.10 | <b>An impact assessment of smoke haze from Indonesia on air quality in Songkhla, Thailand</b><br><i>Parisa Shokoohinia, Kasemsan Manomaiphiboon, Noshah Assareh, Chatinai Chusai, Supachita Kerkkaiwan, Kessinee Unapumnuk</i>                  | F-06 |
| 12.10-12.30 | <b>Estimate of aboveground carbon stock in the mangrove hardwood trees species of Ayeyarwaddy delta, Myanmar</b><br><i>San Win, Amnat Chidthaisong, Sirinthornthep Towprayoon</i>   | F-12 |
| 12.30-12.50 | <b>Applying electrical resistivity tomography measurement in landfill mining: A study on configuration and spacing setting</b><br><i>Chalermpon Wungsumpow, Sirinthornthep Towprayoon, Chart Chiemchaisri, Desell Suanburi, Komsilp Wangyao</i> | F-27 |

Conference: SEE 2018

Room: River 3

Special SUD 1 Session: Energy and Environmental Technology for Sustainable Urban Building Development towards Net Zero Energy Building (CEE Research Program)

Topic D: Energy Efficiency

Chairperson: Prof. Surapong Chirarattananon

| TIME        | TITLE OF PRESENTATION  | Code |
|-------------|--|------|
| 11.00-11.10 | Introduction of the session by the chairperson   | -    |
| 11.10-11.30 | <b>An enhanced roof-mounted light pipe supplemented with LED lamps</b><br><i>Surapong Chirarattananon, Pichet Lertboonkankit, Jintana Srimuk</i>   | D-02 |
| 11.30-11.50 | <b>Building energy simulation (BESim) program</b><br><i>Pichet Lertboonkankit, Surapong Chirarattananon, Vu Duc Hien</i>   | D-04 |
| 11.50-12.10 | <b>Validation of building energy consumption model of Thai building energy code</b><br><i>Preecha Tumm, Surapong Chirarattananon, Ramita Prodkhornburi, Komsan Mulper, Thanakorn kongbang, Weerachart Kongtawee</i>      | D-05 |
| 12.10-12.30 | <b>An experimental validation of BESim simulation of daylight in a room transmitted through a vertical shading system</b><br><i>Surapong Chirarattananon, Vu Duc Hienb, Pimwalee Srirungrueng, Suwimon Charoenkankar</i> | D-07 |

Conference: SEE 2018

Room: River 2

Topic A: Bioenergy and Biofuels

Chairperson: Dr. Patrick Rousset

| TIME        | TITLE OF PRESENTATION  | Code |
|-------------|--|------|
| 11.00-11.10 | Introduction of the session by the chairperson   | -    |
| 11.10-11.30 | <b>Biomass torrefaction and its effect on the yield and composition of tar produced during pyrolysis of various biomass feedstocks</b><br><i>Supatchaya Konsomboon, Suneerat Fukuda, Jean-Michel Commandré</i> | A-03 |
| 11.30-11.50 | <b>A study on pyrolysis behavior of washed biomass</b><br><i>Thitima Sormpitak, Nakorn Worasuwanarak</i>   | A-08 |
| 11.50-12.10 | <b>Influence of biomass blending ratio on characteristics of ashes from co-firing of coal with rice straw: CFB experiments and FactSage modeling</b><br><i>Thanet Unchaisri, Suneerat Fukuda</i>               | A-20 |
| 12.10-12.30 | <b>Charcoal produced from mangrove in center Thailand</b><br><i>Wanida Kajina, Agapol Junpen, Savitri Garivait, Orachorn Kamnoet, Patrick Rousset</i>  | A-35 |
| 12.30-12.50 | <b>The production of new type liquid biofuel from degradative solvent extraction of rice straw</b><br><i>Panupong Promchaona, Anurak Winitorn, Suttipong Tunyapitsak, Nakorn Worasuwanarak, Kouichi Miura</i>  | A-09 |

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**Date: 30 November 2018**

**Time: 13.30-15.00**

**SYMPOSIUM**

**Room: Chatrium Ballroom**

**Theme:** STI for Sustainable Development Goals: How Can We Transfer the ASEAN-Japan Collaboration Research Outcomes in Bioenergy Field?

| TIME        | TITLE OF PRESENTATION  |
|-------------|--|
| 13.30-13.55 | <b>Report from SATREPS 1: Development of clean and efficient utilization of low rank coals and biomass by solvent treatment</b><br><i>Prof. K. Miura (Kyoto University, Japan)</i>   |
| 13.55-14.20 | <b>Report from SATREPS 2: Development of a model system for fluidized bed catalytic gasification of biomass wastes and following liquid fuel production in Indonesia</b><br><i>Prof. R. Noda (Gunma University, Japan)</i> |
| 14.20-14.45 | <b>Report from SATREPS 3: The production and utilization of high quality and cheap biodiesel fuel from biomass waste in Asian countries</b><br><i>Prof. Y. Maeda (Osaka Prefecture University, Japan)</i>                  |
| 14.45-15.00 | Wrap-up discussions  |

**Conference: SEE 2018**

**Room: Ravipa 1**

**Topic F:** Environmental and Climate Science, and Mitigation Technology

**Chairperson:** Prof. Tetsuo Tezuka

| TIME        | TITLE OF PRESENTATION  | Code |
|-------------|--|------|
| 13.30-13.40 | Introduction of the session by the chairperson   | -    |
| 13.40-14.00 | <b>Assessment of relationship between atmospheric PM<sub>10</sub> concentrations and mortality in Bangkok metropolitan region (BMR)</b><br><i>Sitthipong Pengjan, Sébastien Bonnet, Savitri Garivait</i> | F-21 |
| 14.00-14.20 | <b>Environmental impact assessment of palm oil mills in Thailand with waste utilization options</b><br><i>Nattaya Huailuek, Thapat Silalertruksa, Shabbir H. Gheewala</i>                                | F-22 |
| 14.20-14.40 | <b>Life cycle assessment of ethanol production from molasses in Ethiopia</b><br><i>Ephrata Demissie, Shabbir H. Gheewala</i>   | F-23 |
| 14.40-15.00 | <b>Water-Food-Energy nexus assessment of oil palm plantation in Thailand</b><br><i>Ukrit Jaroenkietkajorn, Shabbir H. Gheewala</i>   | F-16 |

Conference: SEE 2018

Room: River 3

Topic D: Energy Efficiency

Chairperson: Dr. Pipat Chaiwiwatworakul

| TIME        | TITLE OF PRESENTATION   | Code |
|-------------|---|------|
| 13.30-13.40 | Introduction of the session by the chairperson  | -    |
| 13.40-14.00 | <b>An application of automated slats for tropical daylighting</b><br><i>Vichuda Mettanant, Pipat Chaiwiwatworakul</i>   | D-01 |
| 14.00-14.20 | <b>Coupling effect of fuel cell combined heat and power and energy-efficient home appliances for residential energy system in Japan</b><br><i>Akito Ozawa, Yuki Kudoh</i> | D-03 |
| 14.20-14.40 | <b>Simulation of a dedicated outdoor air system</b><br><i>Furugaan Ibrahim, Surapong Chirarattananon</i>  | D-08 |

Conference: SEE 2018

Room: River 2

Topic A: Bioenergy and Biofuels

Chairperson: Dr. Pierre Joulain

| TIME        | TITLE OF PRESENTATION  | Code |
|-------------|--|------|
| 13.30-13.40 | Introduction of the session by the chairperson   | -    |
| 13.40-14.00 | <b>Estimation of combustion kinetic parameters using temperature-programmed reaction technique of chars prepared from coal and rice straw</b><br><i>Thanet Unchaisri, Suneerat Fukuda, Kouichi Miura</i> | A-21 |
| 14.00-14.20 | <b>CFD modeling of grate combustion with a steady-state discrete particle model (DPM) approach</b><br><i>Surapoom Somwangthanoj, Suneerat Fukuda</i>   | A-23 |
| 14.20-14.40 | <b>Effect of bed materials on gasification performance and tar reduction in a bench-scale air blown bubbling fluidised bed reactor</b><br><i>Tanakorn Kittivech, Suneerat Fukuda</i>                     | A-28 |
| 14.40-15.00 | <b>Simulation of bagasse-fired power plant with fuel drying system</b><br><i>Chanoknun Sookkummerd</i>   | A-33 |

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# List of Posters

## POSTER PRESENTATIONS

Date: 28-30 November 2018

Conference: SEE 2018

Room: River 1

| TITLE OF POSTER  | Code |
|--|------|
| <b>Biomass fuel optimization for sugar mill power plant</b><br><i>Chanoknun Sookkumnerd</i>  | A-34 |
| <b>Comparing winds from JRA-55 and tower measurement at selected coastal sites in Thailand</b><br><i>Bikash Devkota, Kasemsan Manomaiphiboon, Hoang Thi Trang, Nosha Assareh</i>   | B-07 |
| <b>The effect of Chinese import regulations on waste raw materials in Thailand</b><br><i>So Sasaki</i>   | E-02 |
| <b>Estimation of greenhouse gas emissions from tap water usage in Thailand</b><br><i>Thoucha Rummasak</i>  | F-02 |
| <b>Heat index intensity in Phnom Penh, Cambodia</b><br><i>Kimhong Chea, Kasemsan Manomaiphiboon, Nishit Aman, Jirawan Kamma</i>  | F-09 |
| <b>Feasibility of mechanical-biological treatment for mixed municipal waste in Southeast Asia</b><br><i>Tomonori Ishigaki, Nopparit Sutthasil, Satoru Ochiai, Komsilp Wangyao, Masato Yamada</i>   | F-10 |
| <b>Bio-indicators assessment by using pathogenic bacteria detection in mangrove sediment during monsoon season, Thai gulf, Songkhla province, Thailand</b><br><i>Manudchaya Nuangjui, Warawut Chulaluksananukul, Chompunuch Glinwong</i> | F-18 |

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