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UNIVERSITI
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MPIA
MALAYSIAN PHOTOVOLTAIC INDUSTRY ASSOCIATION

Co-Organized by:



ASEAN SGC | ASEAN SMART GRID CONGRESS 5

Le Grandeur Palm Resort Johor, Senai, Johor 3-4 Dec 2019

INDUSTRY ENGAGEMENT TOWARDS LOW CARBON PATH

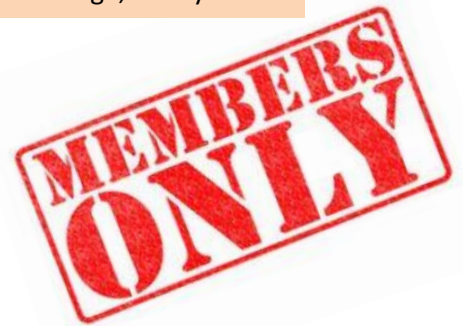
Officiated by:

Mdm. Noor Afifah Abdul Razak

Deputy Secretary General (Energy)

Ministry of Energy, Science, Technology, Environment, and Climate Change, Malaysia

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SYNOPSIS OF ASGC5

This year, the **Fifth ASEAN Smart Grid Congress 2019 (ASGC5)** is hosted and organised by the **Malaysian Photovoltaic Industry Association (MPIA)**, co-hosted and co-organised by the **Faculty of Applied Sciences (FAS), Universiti Teknologi MARA (UiTM)** and co-organised by the School of Renewable Energy and Smart Grid Technology (SGTech), Naresuan University (NU), Thailand as the ASGC secretariat and the Asian Development Institute for Community Economy and Technology (adiCET), Chiang Mai Rajabhat University (CMRU), Thailand, with support from the Office of Naval Research (ONR) and the Office of Naval Research Global (ONRG), U.S.A., platinum sponsor SUNGROW Co. Ltd. and all other sponsors. Special presence by notable organisations include: New Energy Development Organisation (NEDO) Japan and ASEAN Centre for Energy (ACE), by sending expert speakers and researchers.

This 5th ASGC is very special as it marks the first time the congress is hosted by an industry-academia team, i.e. the MPIA-UiTM. Also, this year's ASGC is elegant, as it presents a real-life smart grid commercially-run facility installed by the private sector. It is thus apt that the theme is, "**Industry Engagement Towards Low Carbon Path**". Here, in Malaysia, we bear witness, the ASGC enters an elevated dimension as the industry-academia player work in a synergistic symbiosis, under-pinned by a visionary and clear policy of the government.

The main objectives of the congress are:

- To bring together industry players, field experts, researchers, policy makers and all users to exchange knowledge and ideas on economics, technology, policy and other aspects of smart grid, featuring field visits and presentations;
- To maintain effective understanding and networking amongst ASEAN countries; and
- To witness and experience working smart grid systems and share strength and confidence from others to embark on the journey.

BACKGROUND

The concept of a platform for renewable energy (RE) and smart grid technology to inter-link and work together within the South-East-Asia (SEA) region was originally mooted by Assoc. Prof. Dr. Rakwichian Wattanapong from Thailand and Dr. Cung Vu from the United States of America (USA). It culminated into the 1st ASEAN Smart Grid Congress (ASGC1) on Dec 16-18 2015, organised by the lead host and organizer, i.e. School of Energy and Environment (SEEN), University of Phayao (UP), Thailand and co-hosted and co-organised by: adiCET, CMRU, Thailand; Rajamangala University of Technology (RUT) Thanyaburi, Thailand and UiTM, Malaysia. Delegates from universities and RE organizations from all ASEAN member countries were invited. ACE was present at ASGC1 together with delegates from other countries, such as Zambia, Germany, India, Japan, as well as the USA.

The ONR and ONRG of the US Navy have been providing the main funding support to ASGC since its first organisation. Support also came from NEDO Japan; Hawaii Natural Energy Institute (HNEI), University of Hawaii, USA; Yunnan Academy of Science and Technology Information (YASTI), China; National Research Council of Thailand; Provincial Electricity Authority (PEA) of Thailand; and several Thai companies.

At the 2nd ASGC in 2016 held at FAS, UiTM Malaysia, ACE was represented by its Executive Director. One of the key points discussed was how ASGC could be recognised as an ASEAN event. Upon more detailed discussions at this event, delegates came up with recommendations, which can be grouped into the following areas:

- Network of university researchers on the topic of smart grid via:
 - Sharing of information and resources through collaborative research; and
 - Joint academic and qualifying programmes.
- Organize annual ASEAN ASGC events;
- Establish smart grid journal and/or magazine;
- Collaborative research topics such as:



- Smart grid technology – hardware, software; modeling and forecast; renewable energy, smart grid infrastructure;
- Energy management: transmission, distribution, electrical power management;
- Policy; climate change; and
- Economic / financial model; energy business and trading.
- Set up web based portal to share database about smart grid and renewable energy;
- Capacity building activities: student and staff exchange; technology know-how sharing.

The 3rd ASGC in 2017 was held in Vietnam, with only Thailand & Vietnam in attendance. The 4th ASGC in 2018 was hosted by SGtech, Thailand. The ASGC4 was a significant event, as it was here, cooperation among the universities participating in the ASGC was formalized. A memorandum of understanding (MOU) was signed involving ten universities from eight ASEAN countries: Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Thailand and Vietnam. This MOU thus formalized the intention for cooperation that was the outcome of the meeting and discussion held during ASGC2 conducted at the FAS, UiTM, Shah Alam, Malaysia.

MALAYSIAN PHOTOVOLTAIC INDUSTRY ASSOCIATION (MPIA)

The **Malaysian Photovoltaic Industry Association (MPIA)** is a non-profit organization representing the Malaysian solar industry. MPIA is dedicated to the promotion of solar energy and members comprise: local supply chain, manufacturers, service providers, system integrators, consultants, insurance providers, training providers, etc. MPIA bridges communication among the stakeholders and works well with the government to ensure the efficient, ethical and professional growth of the solar PV industry.

- Vision: Everyone can generate their own electricity via solar PV.
- Mission: To reform and democratize the electricity supply industry (generation, transmission and distribution); To make solar PV price competitive, reliable, sustainable and one of mainstream sources of electricity supply in the country via innovations and incentives; To achieve the highest level of professionalism, knowledge and competency in solar PV industry.
- Objective: To achieve a national target of at least 12% of total national electricity consumption (~10,000 MWp or 10 GWp) is supplied by solar PV by 2030. For more information please visit: <https://mpia.org.my>

UNIVERSITI TEKNOLOGI MARA (UiTM)

The **Universiti Teknologi MARA (UiTM)** is an established comprehensive university with about 160,000 students, 35 campuses and 17,500 staff, spread over the entire of Malaysia. UiTM holds to the philosophy that every individual has the ability to attain excellence through the transfer of knowledge and assimilation of moral values so as to become professional graduates capable of developing knowledge, self, society and nation. UiTM offers academic and professional programmes at the various levels and disciplines. It has established strengths in teaching and learning, research and services. For more information please visit: <https://www.uitm.edu.my/index.php/en/about-uitm/university-profile/motto-vision-philosophy-objectives>

The **Faculty of Applied Sciences (FAS)** is one of the oldest established faculties in UiTM, offering 25 programmes at the undergraduate and post-graduate levels. FAS is also one of the leading faculties in UiTM that has established links and working relationships, nationally and internationally. For more information, please visit: <https://fsg.uitm.edu.my/main/>.

Activities on renewable energy (RE) at FAS is spearheaded by the **Solar Photovoltaic Energy Conversion Technology Research Applications (SPECTRA)** group. Members comprise leading figures on PV in the country and region. SPECTRA is involved in many government, industry, education, training and society-related activities on solar PV. For more information, please contact: norzaini@uitm.edu.my.



PROGRAMME

Time	Activity on Tuesday 3 Dec 2019
10:00	Introductory remarks: Prof. Sulaiman Shaari - Chairman of ASGC5, Faculty of Applied Sciences (FAS), Universiti Teknologi MARA (UiTM), Malaysia.
10:05	Welcoming remarks: Mr. Chin Soo Mau - President, Malaysian Photovoltaic Industry Association (MPIA).
10:15	Special address: Dr. Richard Carlin - Department Head, Office of Naval Research (ONR), U.S.A.
10:30	Opening and launching address: Mdm. Noor Afifah Abdul Razak - Deputy Secretary General (Energy), Ministry of Energy, Science, Technology, Environment & Climate Change (MESTECC), Malaysia.
10:50	1) Group photo 2) Refreshment
11:10	Plenary: Title: ASEAN cooperation - Facilitating Involvement of Academic and Industry Players in Accelerating RE Penetration Dr. Chan Hoyyen - Senior Research Analyst, ASEAN Centre for Energy (ACE), Jakarta, Indonesia.
11:40	Keynote 1: Title: Smart Grid for ASEAN Dr. Richard Rocheleau - Director, Hawaii Natural Energy Institute (HNEI), U.S.A.
12:05	Keynote 2: Title: Smart Grid Latest Developments in Japan Mr. Kosuke Kotsusa - Representative for Asia Region, New Energy Development Organisation (NEDO), Japan.
12:30	Lunch
14:00	Keynote 3: Title: Smart Grid and Low-Carbon Cities Development in Malaysia Ir. Dr. Sanjayan Velautham - Chief Executive Officer, Sustainable Energy Development Authority (SEDA), Malaysia.
14:20	Keynote 4: Title: Development of Smart Grid in Malaysia: Policy, Planning and Institutional Aspects Mdm. Suraiya Nadzrah Ramli - Deputy Director of Electricity/Gas Supply and Service Quality Unit, Energy Commission (EC), Malaysia.
14:40	Refreshment



15:00	<p>Dialogue 1: Theme: Updates of Development on Smart Grid in ASEAN</p> <p>Moderator - Dr. Sulak Sumitsuwan, Chairman, ASGC Office, SGtech, Naresuan Univ., Thailand.</p> <p>Agenda: 1) Recap of themes and summaries of ASGC 1; 2; 3; 4: - Asst. Prof. Dr. Prapita Thanarak, ASGC Secretariat, SGtech, Nareasuan Univ., Thailand. - Dr. Worajit Setthapun, Director adiCET, Chiang Mai Rajabhat Univ., Thailand.</p> <p>2) ASEAN member country presentation on updates of activities (10 minutes each speaker): - Vietnam; Thailand; Singapore; Philippines; Myanmar; Malaysia; Laos; Indonesia; Cambodia; Brunei</p>
19:00	<p>Welcoming Dinner Theme: national / traditional attire (recommended).</p> <p>1) Montage. 2) Signing, exchanging and announcement of MOU documents: a) UiTM with HNEI b) UiTM with MPIA c) UiTM with YASTI 3) Appreciation to sponsors.</p>

Time	Activity on Wednesday 4 Dec 2019
9:00	<p>Keynote 5: Title: Smart Grid and Micro Grid for Archipelagic Communities - Power Play of Policy-Industry-Capacity-Infrastructure Mr. Mark Glick - Specialist, Hawaii Natural Energy Institute (HNEI), U.S.A.</p>
9:20	<p>Paper 1: Title: Smart Power Conditioning Technology Mr. Luis Xu - Regional Manager, SUNGROW Co. Ltd.</p>
9:40	<p>Paper 2: Title: Development of Smart Grid in Thailand Dr. Yodthong Mensin - School of Renewable Energy and Smart Grid Technology (SGtech), Thailand.</p>
10:00	Refreshment
10:30	<p>Keynote 6: Title: Smart Grid Floating Solar Dr. Thomas Reindl - Head of Cluster, Solar Energy Research Institute Singapore</p>
10:50	<p>Paper 3: Title: Disruptive Technology and Climate Change Mr. Cherid Kalayanamitr - Scientist Level 11 under Assistant Governor, Power Plant Planning, Electricity Generating Authority (EGAT), Thailand.</p>
11:10	<p>Paper 4: Title: Pathway to Smart Grid Training Facility in UiTM Assoc. Prof. Dr. Nor Zaini Ikrom Zakaria - Faculty of Applied Sciences (FAS), Universiti Teknologi MARA (UiTM), Malaysia.</p>
11:30	<p>Paper 5: Title: Comparison of Energy Storage Technologies for Rural Community Microgrid Applications Mr. Paul Marshall - Founder and President, PGM International, San Diego, California, U.S.A.</p>



11:50	Paper 6: Title: Global Environment Facility (GEF) United Nations Industrial Development Organization (UNIDO) Smart Grid Project Development in Malaysia Ir. Mohd Qaharuddin Abdullah - Malaysian Industry-Government Group for High Technology (MIGHT), Malaysia
12:10	Paper 7: Title: Introducing the Smart Grid System at Barat Tioman Resort Mr. See Heng Chun - PEKAT Solar Sdn. Bhd., Malaysia.
12:45	Lunch
14:00	Dialogue 2: Theme: Achieving Sustainable Development Goals (SDG) and Climate Actions (Paris Agreement): RE through Smart Grid - the Government-Academia-Industry Synergy. Moderator - Mr. Lionel Yap, Malaysian Photovoltaic Industry Association (MPIA) Agenda: 1) Briefing on the SDG's and the Paris Agreement - Mr. Conrado Heruela, Director, Climate Change Programme, SGtech, Thailand Panel discussion with the following panelists: - Dr. Chan Hoyyen, ACE, Jakarta - Dr. Yodthong Mensin, SGTech, Naresuan Univ., Thailand - Mr. Chin Soo Mau, Malaysian Photovoltaic Industry Association (MPIA) - Ir. Dr. Sanjayan, SEDA Malaysia - Dr. Thomas Reindl, Solar Energy Research Institute Singapore - Mr. Mark Miller, Architect, USA - Dato' Ir. Guntor Tobeng, Gading Kencana, Malaysia
16:10	Refreshment
16:30	Announcement for ASGC6 - to be held at SGTech, Naresuan Univ., Thailand. - Asst. Prof. Dr. Prapita Thanarak, ASGC Secretariat
16:40	Closing address: - Assoc. Prof. Dr. Wattanapong Rakwichian, ASGC Founder, SGtech, Naresuan Univ., Thailand
19:00	BBQ dinner Theme: smart casual / relax and easy.

PATRON AND ADVSIOR OF ASGC5

MPIA : Mr. Chin Soo Mau
 UiTM : Prof. Farida Zuraina Mohd Yusof

WORKING COMMITTEE OF ASGC5

Chairman : Prof. Sulaiman Shaari
 Head of Secretariat : Mr. Lionel Yap Teck Liong Email: lionel@mpia.org.my
 Special Tasks : Ms. Crystal Ng Pei Szen
 Finance & Operations : Ms. Nik Nuratisha Nik Ibrahim
 Communications : Mr. Chai Chee Fatt Email: chai@mpia.org.my
 Administration : Ms. Nor Silawati Zulkifli
 Liaison with UiTM : Assoc. Prof. Dr. Nor Zaini Ikrom Zakaria
 : Dr. Hedzlin Zainuddin
 : Dr. Farah Liyana Mohd Khir





5th ASEAN Smart Grid Congress 2019

REGISTRATION FORM

3 – 4 December 2019

2 Full Days Event

Le Grandeur Palm Resort, Senai, Johor

1) Name:		
Position:		
Company Name:		
Address:		
Postcode:	City:	Country:
Mobile:	Tel:	Fax:
Email:	Website:	
2) Name:		
Position:		
Company Name:		
Address:		
Postcode:	City:	Country:
Mobile:	Tel:	Fax:
Email:	Website:	
PAYMENT METHOD (i) Cheque payable to: PERSATUAN PERUSAHAAN PHOTOVOLTAIC MALAYSIA (ii) For direct bank-in / account details: PERSATUAN PERUSAHAAN PHOTOVOLTAIC MALAYSIA CIMB BANK BERHAD 8600745729	COURSE FEE (PLEASE TICK) <u>Register before/by 28 November 2019</u> <input type="checkbox"/> MPIA Member – USD 300/pax LIMITED TO 20 PAX ONLY	
TERMS & CONDITIONS 1. Seats are allocated on first come, first served basis. 2. Registration is only accepted and confirmed once cheque is cleared. 3. Payment slip must be attached together with the registration form. 4. Cheques posted or sent through post / registered post are not accepted.	TO REGISTER, PLEASE EMAIL THE COMPLETED FORM TO silawati@mpia.org.my	
	FOR INQUIRIES Call +603 – 6151 7227	