



# 2<sup>nd</sup> INTERNATIONAL CONFERENCE OF LOW CARBON ASIA (ICLCA'16)

*“Realizing Low Carbon Development  
in Asia and Beyond”*

23 - 25 NOVEMBER 2016  
UTM KL CAMPUS

In conjunction with  
Carbon Capture, Utilization and Storage (CCUS) Symposium &  
“Sustainability Assessment for City and Industry” Workshop

Host,

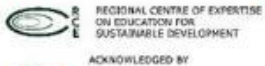


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**REALISATION OF LOW CARBON ACTION: SCIENCE TO ACTION (S2A)**

Decoupling high greenhouse gases emission without compromising the economic growth is a great challenge. The coordinated efforts at different levels covering from top-down and bottom-up measures are essential to implement the low carbon emissions scenarios with reduced carbon footprints. The progress has not been always fast enough due to the gaps among the key stakeholders including the central and local governments, experts and business entities and the community at large. More meeting platforms and leadership are anticipated to close these gaps.

It is my great pleasure to chair the ICLCA conference for the second time. I would like to thank all the co-hosts, close to 120 delegates including academia, exhibitors and sponsors from local and abroad to continue this knowledge sharing session. ICLCA serves as a high-impact platform bringing together multi-stakeholders from academic, government & industry to champion the transformation and governance of low carbon societies in Asia & beyond. The focus areas include Urban Planning, Green Building, and Sustainable Systems for Energy, Solid Waste management, Transportation, Education Ecosystem, Land use, land-use change and forestry, and many more.

I hope ICLCA will continually serve as a platform to strengthen the regional capacity building for best practices sharing and realisation of real actions for low-carbon societies as a result of the long-term scientific research work.

May all of you find this conference interactive and useful, I hope you will also enjoy exploring Kuala Lumpur and Malaysia.

**Yours truly,**

**Prof Chin Siong Ho**

**Director,  
UTM Low Carbon Asia Research Centre  
ho@utm.my**



[www.utm.my/iclca](http://www.utm.my/iclca)

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## DAY 1 (23<sup>rd</sup> November 2016, Wednesday)

Time	Tentative Programme		
8:00-9:00am	<b>Registration</b> Venue: Menara Razak, Ground floor		
9:00-9:30am	Venue : Ilmuan 1	<b>Welcoming Remarks</b> Prof. Ir. Dr. Wahid Omar, Universiti Teknologi Malaysia Vice Chancellor	
9:30-10:00am		<b>Official Opening Remarks</b> YBhg Datuk Seri Dr. Maximus Johnity Ongkili, Minister of Energy, Green Technology and Water (KeTTHA), Malaysia	
10:00-10:30am		<b>Tea Break/Networking</b> Venue: Ilmuan 3	
10:30-11:00am		<b>Plenary 1: 'Environmental Sustainability'</b> YBhg. Datuk Ismail b. Ibrahim, Chief Executive of Iskandar Regional Development Authority (IRDA), Malaysia	
11:00-11:30am		<b>Plenary 2: 'Stabilising Asia Climate'</b> Prof. Dr. Shuzo Nishioka, Senior Advisor IGES, Japan	
11:30-12:00pm		<b>Plenary 3: 'Virtual Greenhouse Gas and Water Footprints Reduction: Emissions, Effluents and Water Flows Embodied in International Trade'</b> [Paper 146] Prof. Dr. Jiri Jaromir Klemes, Pazmany Peter Catholic University, Hungary	
12:00-12:30pm		<b>Plenary 4: 'Transition of Biomass Conversion Technologies towards Energy Production and their Co-benefits in ASEAN'</b> Assoc. Prof. Dr. Sirintornthep Towprayoon, King Mongkut's University of Technology Thonburi, Thailand	
12:30-2:00pm		<b>Lunch Break / Networking</b> Venue: Ilmuan 3	
2:00-2:30pm		<b>Plenary 5: 'Synthesis of More Sustainable Total Site for Energy Management'</b> [Paper 56] Prof. Dr. Zdravko Kravanja, University of Maribor, Slovenia	
		<b>Parallel Session - OP 1 'Low carbon Society'</b> Chairman: Prof. Dr. Shuzo Nishioka Venue: Ilmuan 1	<b>Parallel Session- OP 2 'Low Carbon Building'</b> Chairman: AP. Dr. Kasturi Devi Venue: Ilmuan 2
2.30-2.45pm	<b>Keynote 1:</b> <b>Realization of Low Carbon Sustainable Cities –Science to Action (S2A) Approach</b> Prof. Dr. Chin Siong Ho, Director, UTM Low Carbon Asia Res. Centre	<b>Keynote 2:</b> <b>Low Carbon Building Initiatives in Malaysia</b> Mr. Steve Anthony Lojuntin, Head, Energy demand Manag. Unit, National Energy Dev. Authority (SEDA), Malaysia	<b>Keynote 3 :</b> <b>Transforming Plastic Scrap into Smart Plastic</b> Mr. Kian Hoe Seah, Founder, Heng Hiap Industry, Johor
2.45-2.55pm	<b>Green initiatives by Kulai Municipal Council</b> Hj Abdul Rahman b. Salleh President, Kulai Municipal Council	<b>[Paper 54] Influence of Indoor Environmental Quality on Work Productivity in Green Office Buildings: A Review</b> Masoud Esfandiari*, Suzaini Mohamed Zaid and Muhammad Azzam Ismail	<b>[Paper 19] Policy-Based GHG Mitigation Tracking and Institutional Framework Development Under Thailand's Namaste In Energy Sector</b> Wongkot Wongsapai, Chaichan Ritkrerkkrai*
2.55-3.05pm	<b>Sustainable Development Championed by Kuala Lumpur City Hall</b> Pn. Hjh Nik Mastura Diyana Nik Mohamad, Deputy Director, City Planning Department, Kuala Lumpur City Hall	<b>[Paper 22] Investigation of Green Assessment Criteria And Sub-Criteria For Public Hospital Building Development In Malaysia</b> Shaza Rina Sahamir*, Rozana Zakaria, Gamal Alqaifi, Nur Izieadana Abidin and Raja Rafidah Raja Muhd Rooshdi	<b>[Paper 91] Wind Energy Harvesting From Wind-Induced Vibration</b> Nurshafinaz Mohd Maruai*, Mohamed Sukri Mat Ali, Mohamad Hafiz Ismail, Nor Aniezan Mohd Ihsan, Farah Nurhanis Hassan Sadzli and Sheikh Ahmad Zaki Shaikh Salim
3.05-3.15pm	<b>Green Initiatives by Johor Bahru Tengah Municipal Council</b> Pn. Hjh. Zarina Abd Hamid, Head of Planning Department, Johor Bahru Tengah Municipal Council	<b>[Paper 5] Study on High-Rise Building Using Wind Energy at Humid Tropical Climate</b> Vivien Himmayani Soebiyani, John F Bobby Saragih and Michael Tedja	<b>[Paper 52] Time Series Data Analysis of Household Electricity Usage During El Nino In Malaysia</b> Nassir Ranjbar*, Sheikh Ahmad Zaki Shaikh Salim, Aya Hagishima and Mohamed Sukri Mat Ali
3.15-3.25pm	<b>Sustainable Waste Management Practices and Carbon Emission Reduction at Sanitary Landfill</b> Mr. Zamri Abd Rahman, Young Professional Committee Chairman, Waste Management Association Malaysia (WMAM)	<b>[Paper 33] Green Maintenance for Heritage Buildings: Low Carbon Repair Appraisal Approach On Laterite Stones</b> Nurush Syhadah Mahmud*, Brit Anak Kayan and Imaduddin Abdul Halim	<b>[Paper 26] Photocatalytic Carbon Dioxide Reduction to Fuels Over Cu-loaded g-C3N4 Nanocatalyst Under Visible Light</b> Beenish Tahir, Muhammad Tahir* and Nor Aishah Saidina Amina
3.25-3.35pm	<b>The Development of Low Carbon Island Model for Langkawi Island</b> Ministry of Energy, Green Technology & Water Malaysia (KeTTHA)	<b>[Paper 119] Low Carbon Emission through the use of BIPV Windows in Algerian Mid-Rise Buildings</b> Mesolub Abdelhakim, Mohd Zain Kandar, Yakubu Aminu Dodo	<b>[Paper 161] Resource Planning for Sustainable Production of Tailor-Made Green Diesel</b> Nurul Hanim Razak*, Nor Alafiza Yunus, Haslenda Hashim, Nur Naha Abu Mansor

## DETAILED TENTATIVE PROGRAMME

3.35-3.45pm	[Paper 138] <i>Carbon and Energy Use Reporting For Buildings in Putrajaya: Instrument For Carbon Emission Mitigation</i> Tze Wee Wang*, Chin Siong Ho	[Paper 117] <i>Technical And Economic Evaluation of District Cooling System as Low Carbon Alternative In Kuala Lumpur City</i> Wen Hui Liu*, Haslenda Hashim, Jeng Shiun Lim and Wai Shin Ho	[Paper 43] <i>Proton Conducting Fuel Cells using the Indium-doped Cerium Diphosphate Electrolyte</i> Minh-Vien Le*, Dah-Shyang Tsai
3.45-3.55pm	[Paper 162] <i>Towards Low Carbon Universities in Nigeria: Agenda for Green Information Technology</i> A.U. Alkali, Isiaka Adeyemi Abdul-Azeez*, Nur Naha Abu Mansor, A.I. Chikaji and Yakubu Aminu Dodo	[Paper 23] <i>Energy Efficiency Initiatives in a Campus Building</i> Rozana Zakaria, Nur Izieadiana Abidin*, Nurul Noraziemah Mod Pauzi, Shaza Rina Sahamir and Siti Mazzuana Shamsuddin	[Paper 137] <i>Parametric Study on the Transesterification Reaction by using CaO/Silica Catalyst</i> Nurul Saadiah Lani*, Norzita Ngadi and Mohd. Rozainee Taib
4.00-4.30pm	<b>Refreshment Break/ Networking</b>		
	<i>Parallel Session- OP 4 'Sustainable waste management'</i> Chairman: Prof. Dr. Masafumi Goto  Venue: Ilmuan 1	<i>Parallel Session - OP 5 'Sustainable production &amp; consumption'</i> Chairman: Prof. Dr. Saulius Vasarevicius Venue: Ilmuan 2	<i>Parallel Session - OP 6 'Sustainable transportation'</i> Chairman: Prof. Datin Dr. Zuriati binti Zakaria Venue: Bilik Kuliah 18
4.30-4.45pm	Keynote 4: [Paper 82] <i>Concrete Waste Management Decision Analysis Based on Life Cycle Assessment</i> Mah Mei and Takeshi Fujiwara*	Keynote 5: [Paper 104] <i>Spent Coffee Grounds As A Valuable Source of Bioactive Compounds And Bioenergy</i> Phung Thi Kim Le*, Quan Thi Hong Vu, Khoa Anh Tran, Kien Anh Le and Quan Truong Vy Nguyen	Keynote 6: [Paper 83] <i>India's INDC for Transport and The 2 Degree C Stabilization Target</i> Subash Dhar, P.R. Shukla* and Minal Pathak
4.45-4.55pm	[Paper 118] <i>Review Of Sustainability Indicators on Municipal Solid Waste Management</i> Cindy Ik Sing Lee*, Zainura Zainon Noor	[Paper 110] <i>Amendment Of Feedstock for The Production Of Quality Compost For Soil Amendment And Heavy Metal Remediation</i> Li Yee Lim*, Chew Tin Lee, Jeng Shiun Lim, Jiří Jaromír Klemeš, Chin Siong Ho, Nur Naha Abu Mansor	[Paper 38] <i>Carbon Emission Pinch Analysis: An Application to Transportation Sector in Iskandar Malaysia 2015</i> Ahmad Fakrul Ramli*, Ho Wai Shin, Zarina Ab Muis
4.55-5.05pm	[Paper 6] <i>Groundwater and Leachate Quality Assessment In Balaoan Sanitary Landfill In La Union, Northern Philippines</i> Leonora E. Ngilangil	[Paper 39] <i>Ethanol Steam Reforming for Renewable Hydrogen Production Over La-Modified Tio2 Catalyst</i> William Mulewa, Muhammad Tahir*, Nor Aishah Saidina Amin and Titus Kadere	[Paper 41] <i>Weightage Factor for Criteria Of Design And Construction for Green Highway</i> Raja Rafidah Raja Muhd Rooshdi*, Shaza Rina Sahamir and Muhd Zaimi Abd Majid
5.05-5.15pm	[Paper 93] <i>GHG Mitigation And Sustainability Co-Benefits of Urban Solid Waste Management Strategies: A Case Study of Ahmedabad, India</i> Shivika Mittal, Minal Pathak, P.R. Shukla*, Erik Ahlgren	[Paper 15] <i>Synergistic Effects of Pulse Light Emitting Diode on Growth Rate, Lipid Content and Its Carbon Chain of Nannochloropsis Sp In Fatty Acid Methyl Ester Production</i> Chee Loong Teo*, Ani Idris, Azrul Nizam Bin Sukiran	[Paper 9] <i>Sustainable Energy Transition, Gender and Modernisation in Rural Sarawak</i> Nurul Hidayah Shabdin*, Rory William Padfield
5.15 -5.25pm	[Paper 45] <i>Mitigation Of GHG Through Food Waste Composting and Replacement of Chemical Fertiliser</i> Jin Hong Wong*, Chin Siong Ho, Nur Naha Abu Mansor, Chew Tin Lee	[Paper 149] <i>Kinetic Study of Catalytic Conversion of Glycerol to Renewable Acrolein</i> Amin Talebian-Kiakalaie* and Nor Aishah Saidina Amin	[Paper 87] <i>Workability, Compressive Strength and Leachability of Coal Ask Concrete</i> Mahdi Rafieizonooz*, Mohd Razman Salim, Mohd Warid Hussin, Jahangir Mirza, Salmiati, Elnaz Khankhaje
5.25-5.35pm	[Paper 109] <i>Review on Substrate and Inoculum Loadings for Anaerobic Co-Digestion of Food Waste</i> Bong Cassandra Phun Chien*, Chew Tin Lee, Wai Shin Ho, Haslenda Hashim, Jiri Klemes, Chin Siong Ho	[Paper 7] <i>Environmental Management System In Food And Beverage Sector : A Case Study from Malaysia</i> Hengku Kurniawan Salim*, Rory Padfield	[Paper 155] <i>Effect of Polyaniline on Surface Properties of Polysulfone Membrane</i> Ahmad Azlinnorazia*, Yunos Muhamad Zaini, Harun Zawati, Hassan Mohd Fahrul, Sharifah Adzila, Tajul Ariffin Ahmad Mubarak, Abdol Rahman Mohd Nasrull, Abdul Haq
5.35-7.00pm	<b>Poster presentation</b>		
7.00-9.00 pm	<b>GALA DINNER</b> Venue: Terrace Kristal, Felda Villa, Kuala Lumpur		

### DAY 2 (24<sup>th</sup> November 2016, Thursday)

Time	Tentative Programme		
	<b>Parallel Session - OP7 'Land use, land use change &amp; forestry'</b> Chairman: Prof. Dr. P.R. Shukla Venue: Ilmuan 1	<b>Parallel Session - OP 8 'Science and Engineering'</b> Chairman: Prof. Dr. Fujiwara Takeshi Venue : Ilmuan 2	<b>Parallel Session – OP 9 'Sustainability'</b> Chairman: Prof. Dr. Zhi-Yong Liu Venue: Bilik Kuliah 18
9.00-9.15am	<b>Keynote 7:</b> [Paper 51] <i>Spatial Inventory of CO<sub>2</sub> Emissions and Removals from Land Use and Land Use Changes in Thailand</i> Wasinee Wannasiri and Poonsak Miphokasapb*	<b>Keynote 8:</b> [Paper 31] <i>Sustainability Framework for Palm Oil Mill</i> Nabila Farhana Binti Jamaludin, Haslenda Binti Hashim and Zarina Ab Muis*	<b>Keynote 9:</b> [Paper 133] <i>Degradable Polyethylene/Rice Bran Film: Effect of Glycerol</i> Zurina Mohamad*, Mohd Zul Halmy Saadan, Mazura Jusoh Jusoh, Rohah Abd Majid Abd Majid, Norfairna Baharulrazi Baharulrazi, Siti Hajjar Che Man Che Man
9.15-9.25am	[Paper 17] <i>Mapping Land Use/ Cover Changes and Urbanization at Sub-districts of Muar, Malaysia</i> Lee Bak Yeo*, Ismail Said, Kei Saito, Amalina Mohd Fauzi	[Paper 55] <i>Overview of Biodiesel Wastes Utilization for Hydrogen Production</i> Ramli Mat, Roslindawati Haron*	[Paper 156] <i>Polymer Mixed Matrix Membrane with Graphene Oxide for Humic Acid performances</i> Siti Hajar Mohd Akhair*, Zawati Harun, Muhamad Zaini Yunos, Mohd Riduan Jamaluddin, Muhamad Fikri Shuhor, Noor Hasliza Kamaruddin and Mohd Faiz Hafeez Azhar
9.25-9.35am	[Paper 111] <i>Computer Simulation as an Alternative Approach in Climatically Responsive Urban Configuration Study</i> Lin Yola*, Chin Siong Ho	[Paper 131] <i>Evaluation of Polycyclic Aromatic Hydrocarbons in Sewage Sludge Compost</i> Saulius Vasarevicius*, Skirmante Dragunaite, Vaidotas Vaisis	[Paper 136] <i>Pilot Evaluation of Calcium Titanate Catalyst for Biodiesel Production from Waste Cooking Oil</i> Noor Yahida Yahya, Norzita Ngadi and Mohamad Wijayanuddin Ali, Nurul Saadiah Lani*
9.35-9.45am	[Paper 152] <i>Urban Forest Cover Change and Sustainability Of Malaysian Cities</i> Kasturi Devi Kanniah*, Chin Siong Ho	[Paper 61] <i>Achieving Low Carbon Society Through Primary Scholl Ecolife Challenge In Iskandar Malaysia</i> Fatin Aliah Phang*, Wai Yoke Wong, Chin Siong Ho and Aerma Nurazalina Musa	[Paper 11] <i>Immobilization of Heavy Metals In Tannery Sludge by Subcritical Water Treatment</i> Ayesha Akter*, Masafumi Goto, Motoo Utsumi, Megat Megat Mohd Noor, Ahmed Parvez, Ammery Joyce Kual
9.45-9.55am	[Paper 28] <i>Estimation of Carbon Stocks From Land-Use Change Due to Tourism In Phuket Island Thailand</i> Kritana Prueksakorn*, Sangdao Wongsai	[Paper 25] <i>Sustainable Low Carbon Practices at School in Iskandar Malaysia</i> Wai Yoke Wong*, Fatin Aliah Phang, Chin Siong Ho and Aerma Nurazalina Musa	[Paper 130] <i>Insulation Material From Rice Husk Granule</i> Sri Haryati* and Risfidian Mohadi
9.55-10.05am	[Paper 151] <i>Reduction of Soil Acidity for Agriculture Activities In Malaysian Ultisols By Rhodopseudomonos</i> Aidee Kamal Khamis, Umi Aishah Asli, Siti Nazrah Zailani, Mohd Roji Sarmidi, Chew Tin Lee	[Paper 139] <i>Assessment of Compost Stability Using Single and Mixed Culture in a Static Semi-Closed Fed-Batch Reactor</i> Siti Nazrah Zailani*, Firdausi Razali, Chew Tin Lee, Leow Chee Woh, Aidee Kamal Khamis	[Paper 12] <i>Recovery of Nitrogen and Phosphorus From Microalgae by Subcritical Water Treatment</i> Ahmed Parvez*, Megat Megat Mohd Noor, Motoo Utsumi, Masafumi Goto, A.K.M. Muzahidul Islam, Ayesha Akter and Ammery Joyce Kual
10.05-10.15am	[Paper 153] <i>Preliminary Analysis of Remote Sensing Technology in Urban Planning in Malaysia</i> Siti Shazwani Mohamad Akhir, Kasturi Devi Kanniah	[Paper 140] <i>Adsorption of FFA In Biodiesel From Palm Oil Fatty Acid Distilled Using Koh-Activated Starch</i> Ammaru Ismaila, Nur Nazlina Saimon, Mazura Jusoh and Zaki Yamani Zakaria*	[Paper 158] <i>Effect of Graphene Oxide with Controlled Stirring time</i> Siti Hajar Mohd Akhair, Zawati Harun, Muhamad Zaini Yunos, Mohd Riduan Jamaluddin, Muhammad Fikri Shuhor, Noor Hasliza Kamaruddin and Mohd Faiz Hafiz Azhar
10.15-10.30am	<b>Tea Break/Networking</b> Venue: Ilmuan 3		
10.30-11.00am	Venue: Ilmuan 1	<b>Plenary 6 Carbon Capture Utilisation &amp; Storage</b> Dr. Tony Zhang, Global Institute CCS, Australia	
11.00-12.30pm		<b>Industry &amp; Academia Forum 'Are We Gearing towards CCUS for CO<sub>2</sub> reduction in Malaysia'</b> Panel: Prof. Dr. Ahmad Fauzi b. Ismail (UTM), YBhg. Datuk Loo Took Gee (Advisor, KeTTHA), Dr. Hariffin Boosroh (GM Generation & Environment TNBR) & Mr. Hatarmizi Hassan (Head of Fluid Tech Dept. Petronas) Moderator: Mrs. Noraziah Muda (TNB Research)	
12.30-2.00pm	<b>Lunch Break / Networking</b> Venue: Ilmuan 3		

	Parallel Session – OP 10 <b>‘Modelling &amp; Optimisation for Sustainability’</b> Chairman : Prof. Zdarkov Kravanja Venue: Ilmuan 1	Parallel Session – OP 11 ‘ Green Technology’ Chairman: AP. Dr. Phung Thi Kim Le Venue: Ilmuan 2	Parallel Session – OP 12 “Carbon Capture, Utilisation & Storage” Chairman: Prof. Dr. Hojeong Kang Venue : Bilik Kuliah 18
2.00-2.15pm	<b>[Paper 115] Observations of Diurnal Variations of Urban Microclimate Parameters at UTM KL</b> Husna Aini, Sheikh Ahmad Zaki, Yusri Yusup, Mohamed Sukri Mat Ali and Nurul Huda	<b>Keynote 11:</b> <b>[Paper 132] Water Purification of Lake Water Using Progressive Freeze Concentration Method</b> Norshafika Yahya, Lee Wei Jie, Zaki Yamani Zakaria, Norzita Ngadi and Mazura Jusoh*	<b>Keynote 12 :</b> <b>[Paper 163] Bio-CCS Technologies- The Case Study of Asia</b> Dr. Piera Patrizio (International Institute for Applied System Analysis, IIASA)
2.15-2.25pm	<b>[Paper 99] Assessing the Sensitivity of Bioenergy Parks to Capacity Disruptions using Monte Carlo Simulation</b> Michael Francis Benjamin*, Raymond Tan and Luis Razon	<b>[Paper 26] Photocatalytic reverse water gas shift CO<sub>2</sub> reduction for cleaner fuels over MMT supported TiO<sub>2</sub> nanocomposite</b> Muhammad Tahir*, Beenish Tahir and Nor Aishah Saidina Amin	<b>[Paper 96] Selection of CO<sub>2</sub> Utilization Options in Carbon Capture, Utilization and Storage (CCUS) Systems using Analytic Hierarchy Process- Data Envelopment Analysis (AHP-DEA) Approach</b> John Frederick Tapia*, Michael Angelo Promentilla, Ming-Lang Tseng and Raymond Tan
2.25-2.35pm	<b>[Paper 102] Predicting target values of hydrogen networks with purification unit</b> Ai-Hong Li, Zhi-Yong Liu*	<b>[Paper 88] Sustainable pervious concrete paver incorporating palm oil fuel ash as cement replacement</b> Elnaz Khankhaje*, Mohd Razman Salim, Mohd Warid Hussin, Jahangir Mirza, Chin Siong Ho, Salmiati and Mahdi Rafieizonooz	<b>[Paper 16] Estimation of Carbon Storage In Coastal Wetlands in Korea</b> Hojeong Kang*, Shi-Hoon Lee and Jin-Hyun Kim
2.35-2.45pm	<b>[Paper 60] The Influence of Sustainable Physical Factors on Haji Crowd Perception Among Internal Pilgrim Group In Mina</b> Badr Alsolami*, Mohamed Rashid Embib and Wallace Imoudu Enegbumac	<b>[Paper 67] Thermogravimetric Studies on The Catalytic Pyrolysis of Rice Husk</b> Vekes Balasundram*, Norazana Ibrahim, Mohd Kamaruddin Abd. Hamid, Ruzinah Isha, Hasrinah Hasbullah and Rafiziana Md Kasmani	<b>[Paper 149] Economic Assessment of Microalgae-Based CO<sub>2</sub> Utilization in Power Plant Sector in Malaysia</b> Muhammad Nurarifuddin*, Haslenda Hashim and Jeng Shiun Lim
2.45-2.55pm	<b>[Paper 50] Potential Biogas Generation from Food Waste through Anaerobic Digestion in Peninsular Malaysia</b> Poh Ying Hoo*, Haslenda Hashim, Wai Shin Ho and Sie Ting Tan	<b>[Paper 57] Thermal Performance and Temperature Mitigation Towards Application of Green Roof in Tropical Climate</b> Mahsan Mirnezhad*, Asrul Mahjuddin Ressang Bin Aminuddin, Kong Seng Yeap and Ardalan Aflaki	<b>[Paper 27] Effect Of Coal Bottom Ash and Binder Addition Into Cao-Based Sorbent on CO<sub>2</sub> Capture Performance</b> Mustakimah Mohamed, Suzana Yusup and Mohamad Azmi Bustam, Nurulhuda Azmi*
2.55-3.05pm	<b>[Paper 114] Carbon Emission Pinch Analysis for Sustainable Landfill</b> Khairunnisa Izzati*, Jeng Shiun Lim, Wai Shin Ho, Haslenda Hashim, Sie Ting Tan, Chin Siong Ho	<b>[Paper 81] Evaluation of Microbial Inoculation Technology for Composting</b> Yee Van Fan, Chew Tin Lee*, Chin Siong Ho, Jiri Jaromir Klemes, Roswanira Abdul Wahab, Lee Suan Chua and Mohamad Roji Sarmidi	<b>[Paper 135] Performance Assessment of CO<sub>2</sub> Sequestration In A Horizontal Well For Enhanced Coalbed Methane Recovery In Deep Unmineable Coal Seams</b> Syahrir Ridha, Edo Pratama* and Mohd Suhaili Ismail
3.05-3.15pm	<b>[Paper 123] Optimization of biodiesel production from mixed <i>Jatropha curcas</i>–<i>Ceiba pentandra</i> using artificial neural network-genetic algorithm: Evaluation of reaction kinetic models</b> Surya Dharma*, Masjuki Haji Hassan, Ong Hwai Chyuan, Abdi Hanra Sebayang, Arridina Susan Silitonga and Fitranto Kusumo	<b>[Paper 124] Enzymatic Hydrolysis Using Ultrasound for Bioethanol Production from Durian (<i>Durio zibethinus</i>) Seeds as Potential Biofuel</b> Abdi Hanra Sebayang*, Masjuki Haji Hassan, Ong Hwai Chyuan, Surya Dharma, Arridina Susan Silitonga, Fitranto Kusumo and Aditiya Harjon Bahar	<b>[Paper 160] Comparison of Different Types of Carbamate Amine for Stripping Process</b> Emyra Ezzatty Masiren*, Noorlisa Harun
3.15-3.25pm	<b>[Paper 126] Papa Sharps- A New Framework For Cost-Effective Design of Hybrid System</b> Nor Erniza Mohammad Rozali*, Sharifah Rafidah Wan Alwi, Wai Shin Ho and Jiri Jaromir Klemeš	<b>[Paper 95] Tapioca Starch Based Green Nanocomposites With Environmental Friendly Cross-linker</b> Wei Tieng Owi*, Ong Hui Lin, Guat Yee Toh, Sung Ting Sam, Hazizan Md Akil and Ruey-An Doong	<b>[Paper 141] A Physical Absorption Assessment of a New Alternative Solvent for Carbon Capture</b> Muhammad Zulhilmil Ahmad*, Haslenda Hashim, Nor Alafiza Yunus, Jeng Shiun Lim, Wai Shin Ho and Chin Siong Ho



## DETAILED TENTATIVE PROGRAMME

3.25-3.35pm	<p><b>[Paper 154] Framework for Greenhouse Gas Accounting Towards Green Port</b> Laila Sakinah Jusoh*, Nur Naha Abu Mansor, Chin Siong Ho and Haslenda Hashim</p>	<p><b>[Paper 113] Growth of Bacillus Coagulants using Molasses as a Nutrient Source</b> Nur Farzana Ahmad Sanadi*, Yee Van Fan, Chee Woh Leow, Jin Hong Wong, Yin Shin Koay, Chew Tin Lee, Lee Suan Chua and Mohamad Roji Sarmidi</p>	<p><b>[Paper 147] Overview of Carbon Reduction, Capture, Utilization and Storage: Development of New Framework</b> Siti Norlaila Faeizah Mohd Rudin*, Zarina Muis and Haslenda Hashim</p>
3.35-3.45pm	<p><b>[Paper 159] Economic and Environmental Assessment for Integrated Biogas Upgrading with CO<sub>2</sub> Utilisation in Palm Oil Mill</b> Lee Ming Kwee* and Haslenda Hashim</p>	<p><b>[Paper 107] Effect of zeolite 4A to marine microalgae culture</b> Afifi Zainal*, Liyana Yahya, Muhammad Nazry Chik, Nur Khairunnisa Hussien and Mohd Hariffin Boosroh (TNB Klang)</p>	<p><b>[Paper 153] Effects of Biochar and Slow-release Fertilizer on Methane Emission in Rice Paddy Soil</b> Jinhyun Kim*, Gayoung Yoo and Hojeong Kang</p>
3.45-3.55pm	<p style="text-align: center;">Keynote 10 : <b>[Paper 148] Reviewing of key risks of financing low carbon technology project</b> Sue Lin Ngan, Hon Loong Lam*, Puan Yatim</p>	<p><b>[Paper 134] Effect of Various Alcohols and Reaction Time on the Properties of Hydroxyl Terminated Natural Rubber Synthesized via Oxidative Degradation</b> Norfairna Baharulrazi*, Siti Hajjar Che Man, Hussin Mohd Nor, Wan Khairuddin Wan Ali, Zurina Mohamad and Nurul Huda Mudri</p>	<p><b>[Paper 143] Palm Oil Mill Effluent (POME) Biogas Off-site Utilization Malaysia Specification and Legislation</b> Aminullah Mohtar*, Wai Shin Ho, Haslenda Hashim, Jeng Shiun Lim</p>
4.00-4.30pm	<p><b>Closing Ceremony</b> Prof. Dr. Shamsul bin Sahibuddin, UTM KL Campus Director, Malaysia Venue: Ilmuan 1</p>		
4.30-5.00pm	<p><b>Refreshment Break/ Networking</b></p>		

### DAY 3 (25<sup>th</sup> November 2016, Friday)

#### Workshop: 'Sustainability Assessment for City & Industry'

Time	Tentative Programme
8.30 -9.00 am	Workshop Registration
9.00-10.15am	<p><b>Assessing &amp; Monitoring Environmental Impact and Sustainability</b> Speaker: Prof Dr. Jiri Klemes (Hungary)</p>
10:15-10.30am	<p style="background-color: yellow;"><b>Tea Break</b></p>
10.30-11.30am	<p><b>Low Carbon City Indicator</b> Speaker: Dr. Sie Ting Tan (Malaysia)</p>
11.30-12.30pm	<p><b>Sustainability Assessment Tool for Industry</b> Speaker: Assoc. Prof. Dr. Haslenda Hashim (Malaysia)</p>

### Poster Session (23<sup>rd</sup> November 2016, Wednesday, 5.35pm - 7.00 pm)

Paper	Title / Authors
13	<b>Assessment of Usage of Biofuel in Aviation Industry In Malaysia</b> , Thanikasalam Kumar and Ilanchelvi Kumar
20	<b>Optimisation of Fermentation Conditions for Isobutanol Production by Saccharomyces Cerevisiae using Response Surface Methodology</b> , Nor Azah Ramli, Roshanida A. Rahman and Norzita Ngadi
162	<b>Producing Precipitated Calcium Carbonate with and without Terpeneol</b> , Anuar Othman*, Rohaya Othman and Siti Noorzidah Mohd Sabri
129	<b>Municipal Solid Waste Management in Kazakhstan: Astana and Almaty Case Studies</b> , Vassilis J. Inglezakis*, Konstantinos Moustakas, Gulzhan Khamitova, Diyar Tokmurzin, Ramilyam Rakhmatulina, Bota Serik, Yerkezhan Abikak and Stavros G. Pouloupoulos
142	<b>Assessment of Potassium Concentration in Biochar before and after the After-burner of a Biomass Gasifier</b> , Stergios Vakalis*, Konstantinos Moustakas, Ulf Sénéchal, Roman Schneider, Bert Salomo, Martin Kurz, Dimitrios Malamis and Tobias Zschunke
150	<b>Solid Waste Management: Socio-Economic Considerations</b> , E.N. Lakioti, K.G. Moustakas, D.P. Komilis, A.E. Domopoulou and V.G. Karayannis
157	<b>Performance of Polysulfone/Polyaniline Membrane for Humic Acid Separation</b> , Ahmad Azlinnorazia, Yunus Muhamad Zaini, Harun Zawati, Hassan Mohd Fahrul, Adzila Sharifah, Tajul Arifin Ahmad Mubarak, Abdol Rahman Mohd Nasrull, Abdul Haq Reazul Haq and Baharulrazi Norfairna
-	<b>Carbon Inventory and Identification of Suitable Plots for Green Space in Iskandar Malaysia</b> , Kasturi Devi Kanniah*, Fateen Nabilla Rasli, Kang Chuen Siang, Afsaneh Sheikhhi, Ho Chin Siong
-	<b>Awareness, Knowledge and Practices on 3R Activities among Urban and Rural Inhabitants in Iskandar Malaysia</b> , Siti Syamimi Ibrahim, Zainura Zainon Noor*, Cindy Lee Ik Sing, Fatin Aliah Phang, Ho Chin Siong
-	<b>Development of a Community Composting Project in Kulaijaya, Felda Taib Andak</b> , Cassandra Phun Chien Bong, Hesam Kamyab, Jeng-Shiun Lim, Wai Shin Ho, Chew-Tin Lee*, Haslenda Hashim, Nur Naha Abu Mansor, Chin Siong Ho, Abdul Rahim Ramli, Fujiwara Takeshi
-	<b>Biogas Potential from Landfill in Iskandar Malaysia</b> , Haslenda Hashim*, Tan Sie Ting, Hoo Poh Ying, Ho Wai Shin, Ho Chin Siong
-	<b>Transport and Household Energy Consumption and Air Quality Nexus in Iskandar Malaysia</b> , Ariva Sugandi Permana*, Norsiah Abdul Aziz, Sherly Towolioe, Zakka Solomon Dyachia, Azalia Mohd Yusop, Ho Chin Siong



PLENARY 1

**'Environmental Sustainability'** : Y.Bhg. Datuk Ismail bin Ibrahim, Chief Executive of Iskandar Regional Development Authority (IRDA)



PLENARY 2

**'Stabilising Asia Climate'** : Prof Dr. Shuzo Nishioka, Senior Advisor, Institute for Global Environmental Strategies (IGES), Japan



PLENARY 3

**'Virtual Greenhouse Gas Water Footprints Reduction: Emissions, Effluents and Water Flows Embodied in International Trade'** : Prof Dr. Jiri Jaromir Klemes, Professor at Pazmany Peter Catholic University, Hungary



PLENARY 4

**'Transition of Biomass Conversion Technologies towards Energy Production and their Co-benefits in ASEAN'** : Assoc. Prof. Dr. Sirintornthep Towprayoon., Director of Joint Graduate School of Energy and Environment (JGSEE), King Mongkut's University of Technology, Thailand



PLENARY 5

**'Synthesis of More Sustainable Total Site for Energy Management'** : Prof. Dr. Zdravko Kravanja, Dean, Faculty of Chemistry and Chemical Engineering, University of Maribor, Slovenia



PLENARY 6

**'Carbon Capture, Utilisation and Storage'** : Dr. Tony Zhang, Senior Advisor, Global CCS Institute, Australia

**FORUM: 'ARE WE GEARING TOWARDS CARBON CAPTURE, UTILISATION AND STORAGE FOR CO<sub>2</sub> REDUCTION IN MALAYSIA?'**

TIME : 11.30 am - 1.00 pm  
 DATE : 24<sup>TH</sup> NOVEMBER 2016  
 VENUE : ILMUAN 1, UTM KL



**Prof. Dr. Ahmad Fauzi b. Ismail**, *Deputy Vice Chancellor of Research and Innovation, Universiti Teknologi Malaysia*



**Y.Bhg. Datuk Loo Took Gee**, *Advisor, KeTTHA, Malaysia*



**Dr. Hariffin Boosroh**, *General Manager Generation & Environment Tenaga Nasional Berhad Research (TNBR)*



**Mr. Hatarmizi Hassan**, *General Manager of Fluid Technology, Carbon Capture & Utilisation Storage, Petroliaam Nasional Berhad (PETRONAS)*

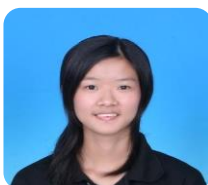
**WORKSHOP: 'SUSTAINABILITY ASSESSMENT FOR CITY & INDUSTRY'**

TIME : 9.00 am - 12.30 pm  
 DATE : 25<sup>TH</sup> NOVEMBER 2016  
 VENUE : ILMUAN 1, UTM KL



**'Assessing and Monitoring Environmental Impact and Sustainability'**

- **Prof. Dr. Jiri Jaromir Klemes**, *Professor, Pazmany Peter Catholic University, Hungary*
- Time : 9.00 am -10.15 am



**'Low Carbon Indicator'**

- **Dr. Sie Ting Tan**, *Universiti Teknologi Malaysia (UTM)*
- Time : 10.30 am -11.30 am

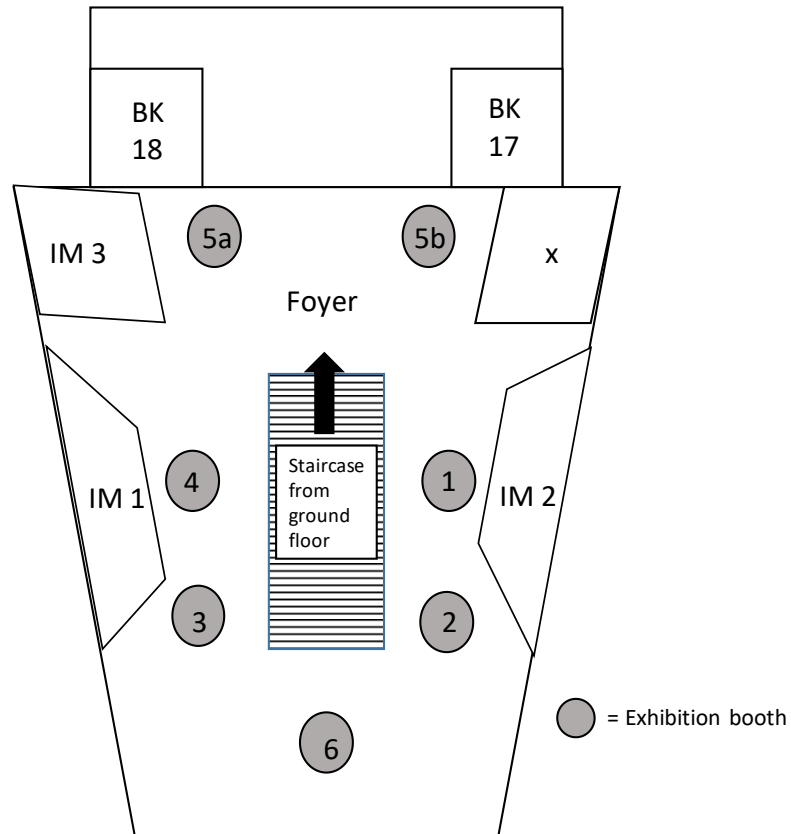


**'Sustainability Assessment Tool for Industry'**

- **Assoc. Prof. Dr. Haslenda Hashim**, *Universiti Teknologi Malaysia (UTM)*
- Time : 11.30 am - 12.30 pm

FLOOR LAYOUT

1<sup>st</sup> floor, Razak Tower, UTM KL

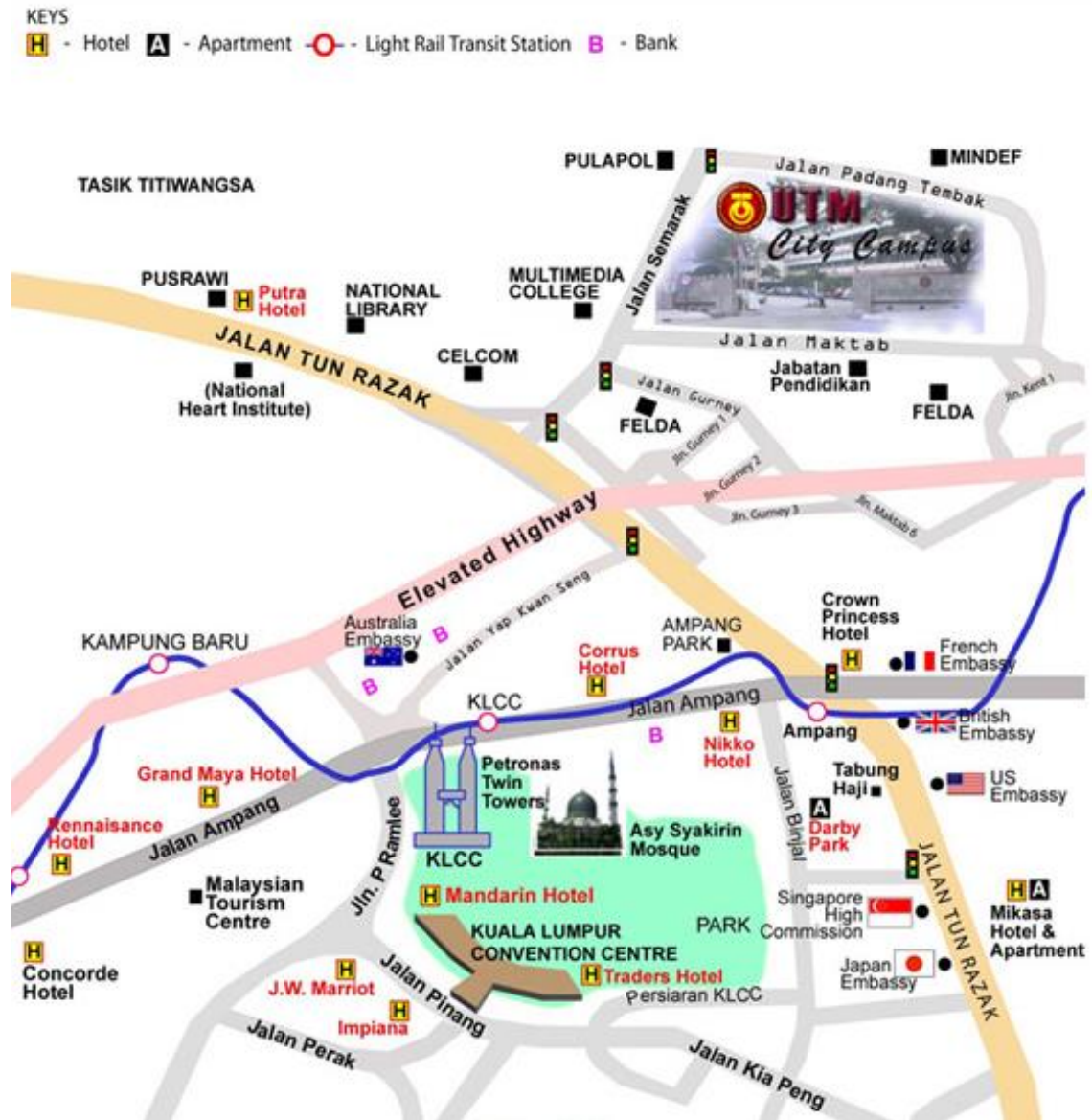


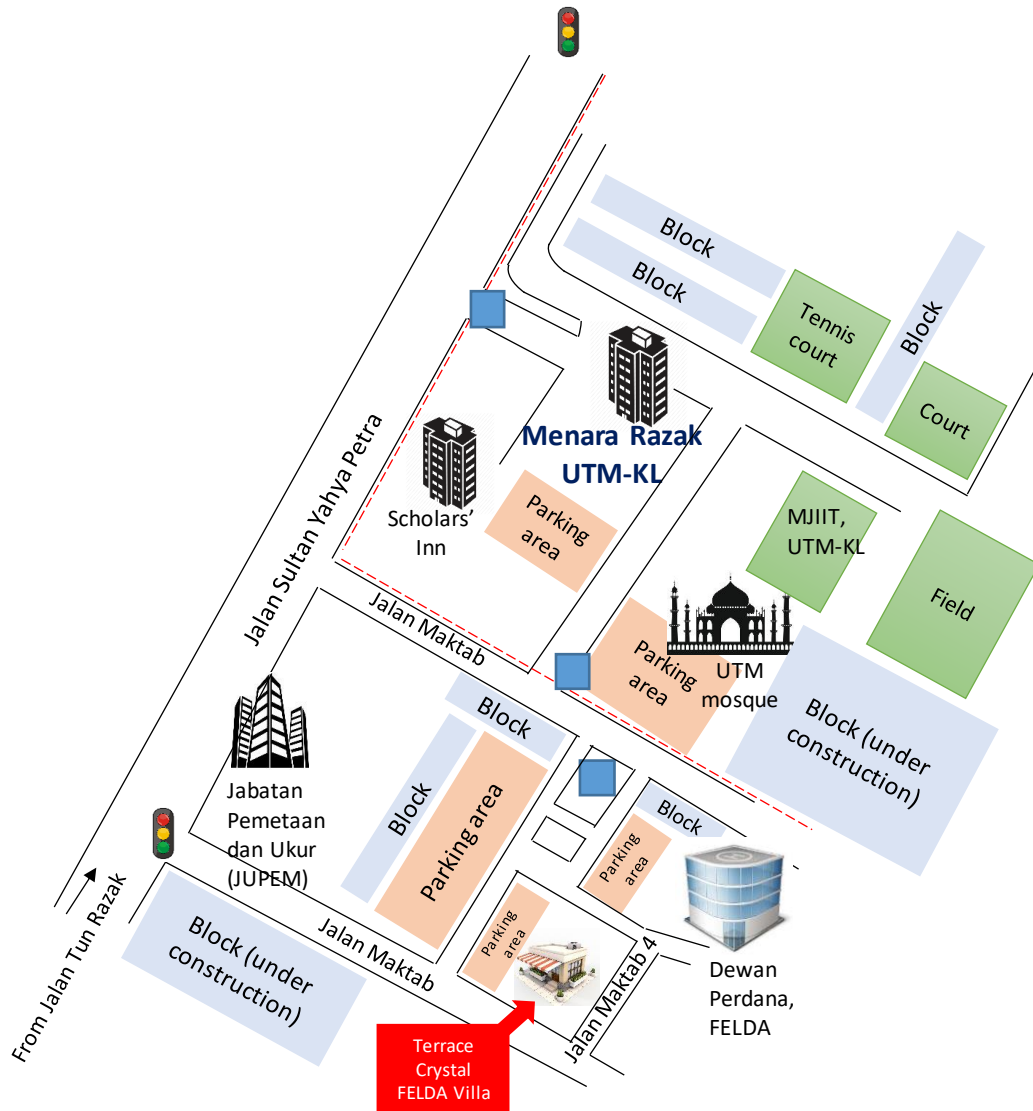
Location	Purpose
<i>Bilik Ilmuan (IM) 1</i>	Opening, press conference, parallel session 1 (OP1, OP4, OP 7, OP 10)
<i>IM 2</i>	Parallel session 2 (OP 2, OP 5, OP 8, OP 11)
<i>IM 3</i>	Dining room, poster session
<i>Bilik Kuliah (BK) 17</i>	Secretariat room
<i>BK 18</i>	Parallel session 3 (OP 3, OP 6, OP 9, OP 12)
Ground Floor	Registration
<i>Bilik Nilam</i> , Ground Floor	VVIP holding room
Foyer	Exhibition area





Exhibition booth	Local Authority/Company
1	Global Carbon Capture and Storage (CCS) Institute
2	Majlis Perbandaran Johor Bahru Tengah (MPJBT) (Johor Bahru Tengah Municipal Council)
3	Majlis Perbandaran Kulai (MPKU) (Kulai Municipal Council)
4	ICLCA Information Desk
5a & 5b	Dewan Bandaraya Kuala Lumpur (DBKL) (Kuala Lumpur City Hall)
6	Amanda Putri's Garden Plantation

CONFERENCE VENUE

**UNIVERSITI TEKNOLOGI MALAYSIA - KUALA LUMPUR CAMPUS**  
**Jalan Sultan Yahya Petra (Jalan Semarak),**  
**54100 Kuala Lumpur, Malaysia**





-  Round board
-  UTM area
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-  Trafficlight

## GALA DINNER of ICLCA 2016

Venue: TERRACE CRYSTAL  
FELDA VILLA, KUALA LUMPUR  
Date : 23<sup>rd</sup> Nov 2016  
Time : 7.00 – 9.00 PM

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The Global CCS Institute is an international membership organisation. Our mission is to accelerate the development, demonstration and deployment of carbon capture and storage (CCS), a vital technology to tackle climate change and provide energy security.

*The Global Status of CCS: 2016* is the Institute's annual publication on the progress of carbon capture and storage (**CCS**) globally. You are invited to download your PDF copy of the Summary Report of this publication at <http://www.globalccsinstitute.com>.

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ACKNOWLEDGEMENT TO EXHIBITORS

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3. Majlis Perbandaran Kulai (MPKU) (*Kulai Municipal Council*)
4. Majlis Perbandaran Johor Bahru Tengah (MPJBT) (*Johor Bahru Tengah Municipal Council*)
5. Amanda Putri's Garden

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