

# SYMPOSIUM PROGRAM

Venue: Ta Quang Buu Library, Hanoi University of Science and Technology

Hanoi, November 13 - 15<sup>th</sup> 2019

<b>13<sup>rd</sup> Nov 2019</b> <b>16:00-17:30</b>	<b>STEERING COMMITTEE MEETING (invited only)</b> <b>Room 201A, C4 Building</b>
<b>14<sup>th</sup> Nov 2019</b>	<b>CONFERENCE DAY</b>
	<b>RECEPTION AND OPENING, Conference Hall, 10<sup>th</sup> Floor</b>
7:30-8:30	Reception
8:30-9:00	Opening remark and welcome speech
	Prof. Dinh Van Phong, Vice president, HUST
	Prof. Shu-Yii Wu, President IAHE Biohydrogen Division; <i>Chimica Verde Bionet Asia Pacific Association</i>
<b>9:00-12:00</b>	<b>PLENARY SESSION, Conference Hall, 10<sup>th</sup> Floor</b>
9:00-9:30	<b>Green synergy solution for future</b> <i>Prof. Shu-Yii Wu, President IAHE Biohydrogen Division; Chimica Verde Bionet Asia Pacific Association</i>
9:30-10:00	<b>Biorefinery: the Thai experience</b> <i>Assoc Prof. Klanarong Sriroth, Director of Mitr Phol Group, Thailand</i>
<b>10:00-10:30</b>	<b>COFFEE BREAK</b>
10:30-11:00	<b>Application of deep learning for bio-energy (TBC)</b> <i>Prof. Jun Miyake, Osaka University, Japan</i>
11:00-11:30	<b>A path from zero to hero: biohythane production technology and its applications in self-sustained community</b> <i>Assoc. Prof. Andrew, Chen-Yeon Chu, Fengchia University, Taiwan</i>
11:30-12:00	<b>Challenges in downstream processing of bio-products; energetic and economic aspects</b> <i>Prof. Wolfgang M. Samhaber, Johannes Kepler University Linz, Austria</i>
12:00-12:30	<b>Energy transition and development prospects for renewable energy in Vietnam</b> <i>Assoc. Prof. Pham Hoang Luong, HUST.</i> Vice Chairman, Key State Science and Technology Program on Energy of Vietnam (KC.05/16-20)
<b>12:30-13:30</b>	<b>LUNCH, Ta Quang Buu Library, 10<sup>th</sup> Floor</b>

13:30-17:15	<p style="text-align: center;"><b>SCIENTIFIC SESSIONS</b></p> <p>Session 01: Biomass resources, Biohydrogen, Biogas and biofuel - <b>Room 923</b></p> <p>Session 02: Fermentation and BioProcess - <b>Room 901</b></p> <p>Session 03: Biomass process and refinery for energy and bioproducts - <b>Room 902</b></p>
15:00-15:30	<b>COFFEE BREAK AND POSTER SESSION</b>
13:30-17:30	<p style="text-align: center;"><b>WORKSHOP: ADDING VALUES TO SUGAR INDUSTRY IN VIETNAM</b></p> <p style="text-align: center;"><b>Room 702 (invited only)</b></p>
18:00-20:30	<b>GALA DINER</b>
15 <sup>th</sup> Nov 2019	<b>SCIENTIFIC SESSION</b>
8:45-11:30	<p>Session 01: Biomass resources, Biohydrogen, Biogas and biofuel (cont.) - <b>Room 923</b></p> <p>Session 04: Bioenergy sustainability and bioeconomy-LCA - <b>Room 902</b></p>
10:00-10:30	<b>COFFEE BREAK AND POSTER SESSION</b>
11:45-13:00	<b>LUNCH, 10<sup>th</sup> Floor</b>
13:00-18:00	<b>TECHNICAL TOUR: HABECO Brewery (registered only)</b>
18:00	<b>Return to the Hotel</b>

**SCIENTIFIC SESSION**

**Day 1: 14th November 2019**

<p align="center"><b>13:30-17:15</b></p>	<p align="center"><b>Session 01: Biomass resources, Biohydrogen, Biogas and biofuel (Room 923)</b> <i>Chair: Prof. Alissara Reungsang Assoc. Prof. Nguyen Lan Huong</i></p>	<p align="center"><b>Session 02: Fermentation and BioProcess (Room 901)</b> <i>Chair: Prof. Qiang Liao Assoc. Prof. Le Thanh Ha</i></p>	<p align="center"><b>Session 03: Biomass process and refinery for energy and bioproducts (Room 902)</b> <i>Chair: Dr. Peer Mohamed Assoc. Prof. Tran Lien Ha</i></p>
13:30-13:45	<b>BE-01:</b> Influence of silicone immobilized cell on biohydrogen production in <i>Rhodobacter sphaeroides</i> .	<b>BP-02:</b> The effects of alcohols on pore diameter of biocellulose during the membrane formed process.	<b>BR-04:</b> Direct bio-butanol production from cellulosic material by the co-cultivation of white rot fungus and bacterium.
13:45-14:00	<b>BE-16:</b> Smart usage of salt: reduction of methane emission during the storage and enhancement of biogas production during anaerobic digestion of pig slurry.	<b>BP-03:</b> Enhancing microalgae harvesting of cationic starch flocculation by electrolysis flotation.	<b>BR-05:</b> Bioaugmentation application in cattle slaughterhouse wastewater treatment for biomass production.
14:00-14:15	<b>BE-17:</b> Substrates substitutions of photosynthetic and other bacteria for hydrogen economic purposes using batch culture system with photo- or dark-fermentation processes.	<b>BP-04:</b> Iron (II) phthalocyanine supported on heavy oil soot as the catalysts for microbial fuel cells.	<b>BR-06:</b> Ethanol production from cassava pulp by pre-hydrolysis and simultaneous saccharification and fermentation using immobilized enzymes and cells.
14:15-14:30	<b>BE-04:</b> Efficiency and economic benefit evaluation of dark- and photo fermentative biohydrogen production by fancy production efficiency methods and computable general equilibrium model integrated methodology in major circular economies.	<b>BP-05:</b> Effect of anode proton transport on cyclic voltammetry test in microbial fuel cell.	<b>BR-07:</b> Simultaneous production of hydrogen and ethanol from co-digestion of glycerol waste with algal biomass.
14:30-14:45	<b>BE-05:</b> Furfural tolerant biohydrogen producing bacteria: Isolation and characterization.	<b>BP-14:</b> Submerged fermentation of <i>Trametes versicolor</i> (YunZhi mushroom) polysaccharopeptide.	<b>BR-12:</b> The electro coagulation system with modified electrodes for the removal of cadmium and chromium III in wastewater.
14:45-15:00	<b>Q&amp;A</b>	<b>Q&amp;A</b>	<b>Q&amp;A</b>
<b>15:00-15:30 COFFEE BREAK AND POSTER SESSION</b>			

	Chair: Dr Ao Xia Dr. Dr. Dwi Susilaningsih	Chair: Prof. Am JANG Assoc. Prof. Le Thanh Ha	Chair: Assoc. Prof. Apilak Salakkam Dr. Pham Tuan Anh
15:30-15:45	<b>BE-07:</b> Stimulating direct interspecies electron transfer via foamed nickel supplement to enhance anaerobic digestion.	<b>BP-06:</b> In situ visualization of biofilm formation in a microchannel for a microfluidic microbial fuel cell anode	<b>BR-03:</b> Enzymatic destructuration of different types of lignocellulose matrix: rheometry, granulometry and hydrolysis kinetic.
15:45-16:00	<b>BE-08:</b> Continuous anaerobic co-digestion between alcoholic fermentation wastewater and glycerol waste to produce gaseous biofuel.	<b>BP-07:</b> Proton exchange membrane water electrolysis system—effect of pretreatment before electro-coated for ti anode support.	<b>BR-08:</b> Isolation of thermo-tolerant fresh water green microalgae as potential feedstocks for biofuel production in the tropical and subtropical area.
16:00-16:15	<b>BE-10:</b> Improvement of biogas production by sulfate removal in skim latex serum (sls) using rubber wood ash.	<b>BP-09:</b> Anti-oxidative and anti-tyrosinase activities of collagen peptides derived from vietnamese commercial catfish ( <i>pangasius hypophthalmus</i> ) gelatin.	<b>BR-09:</b> Dual stage peroxide oxidation process in cellulose extraction from oil palm empty fruit bunch: Effect of cellulose fiber composition and structure on thermal properties analysis.
16:15-16:30	<b>BE-11:</b> Enhancing bio-hydrogen and methane production by co-digestion of <i>Chlorella</i> sp. with cassava pulp.	<b>BP-11:</b> Characterization and Identification of Lipid Producing Microalgae Isolated from Belitung Island, Indonesia.	<b>BR-10:</b> Cellulose regeneration using ionic liquid from direct dissolution of lignocellulosic biomass.
16:30-16:45	<b>BE-12:</b> Multi-enzyme pretreatment of <i>Chlorella</i> sp. biomass for biohydrogen production.	<b>BP-12:</b> Mining enzymes from <i>Geobacillus</i> sp. pk12 for bioethanol synthesis under consolidated bioprocessing.	<b>BR-11:</b> Production and application of the magnetic cellulose from pineapple peel.
16:45-17:00	<b>BE-13:</b> Co-digestion of biogas effluent and filter cake for methane production: optimization of substrate proportions.	<b>BP-13:</b> Optimization of cultivation medium for CMCase production from <i>Bacillus subtilis</i> G4.	<b>BR-15:</b> Study on organic calcium production from crustaceans harvested in Quang Ninh Province by using organic acids.
17:00-17:15	<b>BE-15:</b> Life cycle assessment of two-stage biohydrogen and biomethane production from palm oil mill effluent.	<b>SB-08:</b> Diversity of oleaginous yeast newly isolated and their intracellular lipid accumulation ability.	<b>BP-08:</b> Effect of torrefaction, hydrothermal carbonization and degradative solvent extraction on moisture adsorption and spontaneous combustion characteristics of biomass.
17:15-17:30	<b>Q&amp;A</b>	<b>Q&amp;A</b>	<b>Q&amp;A</b>

**Day2: 15th November 2019**

<p><b>8:45-11:30</b></p>	<p><b>Session 01: Biomass resources, Biohydrogen, Biogas and biofuel (Room 702)</b> <i>Chair: Prof. Alex Chang Prof. Seoktae Kang</i></p>	<p><b>Session 04 Bioenergy sustainability and bioeconomy-LCA (Room 902)</b> <i>Chair: Prof. Chen-Yeon Chu Assoc. Prof. Nguyen Thi Anh Tuyet</i></p>
<p>8:45-9:00</p>	<p><b>BE-14:</b> Pre-treatment of palm oil mill effluent for biohydrogen production and bacterial community analysis via next gene sequencing.</p>	<p><b>SB-01:</b> Evaluate energy efficiency in road transportation activities of Vietnam.</p>
<p>9:00-9:15</p>	<p><b>BR-13:</b> Semi-continuous from solid-state anaerobic co-digestion empty fruit bunches with palm oil mill effluent: A case study on the effect of hydraulic retention time.</p>	<p><b>SB-02:</b> Economic feasibility of biomass power plant based on short rotation acacia on post mining land in Halong city.</p>
<p>9:15-9:30</p>	<p><b>SP-01:</b> Enhanced acidogenesis by using Multi-walled carbon nanotubes (MWNT) in anaerobic digester.</p>	<p><b>SB-04:</b> Life cycle evaluation of GHG bio-energy.</p>
<p>9:30-9:45</p>	<p><b>SB-03:</b> Enhanced methane conversion efficiency using conductive permeable electrode in microbial electrosynthesis system.</p>	<p><b>SB-06:</b> The environmental impact of symbiosis energy system to the community.</p>
<p>9:45-10:00</p>	<p><b>Q&amp;A</b></p>	<p><b>Q&amp;A</b></p>
<p><b>10:00-10:30</b></p>	<p><b>COFFEE BREAK AND POSTER SESSION</b></p>	
	<p><i>Chair: Prof. Jamaliah Md Jahim Dr. Prawit KONGJAN</i></p>	<p><i>Chair: Prof. Dong-Hoon Kim Assoc. Prof. Van Dinh Son Tho</i></p>
<p>10:30-10:45</p>	<p><b>BE-03:</b> Multi-walled carbon nanotubes (MWNTs) enhanced the conversion of organic sulfur compounds to gaseous sulfur.</p>	<p><b>SB-07:</b> The utilization of coconut husk for synthesis gas production and industrial wastewater treatment.</p>
<p>10:45-11:00</p>	<p><b>BE-18:</b> Hydrogen sulfide removal from biogas by using recycled water absorption for concentration latex factory.</p>	<p><b>SP-05:</b> A self-assembly 3D macroporous (GO)/Fe<sub>3</sub>O<sub>4</sub> biocathode enhance the performance of CO<sub>2</sub> reduction to CH<sub>4</sub>.</p>
<p>11:00-11:15</p>	<p><b>BE-19:</b> Biomass and polyurethane co-gasification for syn-gas production.</p>	<p><b>BP-10:</b> Enhanced anaerobic digestion of phenol via electrical energy input.</p>
<p>11:15-11:30</p>	<p><b>BE-21:</b> Biogas upgrading from hydrogen gas in dark fermentation by two-stage anaerobic digestion process.</p>	<p><b>BE-09:</b> Patent analysis of technology development in water electrolysis by renewable energy based on TRIZ method.</p>
<p>11:30-11:45</p>	<p><b>Q&amp;A</b></p>	<p><b>Q&amp;A</b></p>

## POSTER PRESENTATION

**DAY 1: 14<sup>th</sup> November 2019, 15:00-15:30**

**DAY 2: 15<sup>th</sup> November 2019, 10:00-10:30**

ID	Title
<b>P-01</b>	Effect of ethanol on biogas production from beverage wastewater
<b>P-02</b>	Effect of acidification time on anaerobic methane production from chicken manure
<b>P-03</b>	Integration of CO <sub>2</sub> electrocatalysis for efficient syngas production in biological conversion to ethanol
<b>P-04</b>	Cultivation and use of <i>Chlorella</i> sp. biomass as feedstock for hydrogen and methane production
<b>P-05</b>	Screening of oleaginous yeast from Vietnamese environment
<b>P-06</b>	Color control from soybean fermentation wastewater by carbon-based adsorbents
<b>P-07</b>	One-step synthesis of fluorescent carbon dots from lemon juice for adsorption of methylene blue
<b>P-08</b>	Research, designing and manufacturing the equipment of pyrolysis for producing charcoal with the raw material from waste wood and renewable – planted wood.
<b>P-09</b>	Characterization of complete genome sequence and rubber degradation genes of <i>Actinoplanes</i> sp. strain OR16
<b>P-10</b>	Identification of microbial communities associated with coal in the red river basin, Vietnam
<b>P-11</b>	Influence of electrostatic field on the bioelectrochemical conversion of coal to methane
<b>P-12</b>	Ab initio simulation of hcl leaching during catalytic hydrolysis over cellulase-mimetic solid acid catalyst using density functional theory
<b>P-13</b>	Effect of pre-treatment methods on solubilization and anaerobic biodegradability of co-substrate of piggery wastewater and kitchen waste
<b>P-14</b>	Effect of organic loading rate on the hydrogen production in microbial electrolysis cells
<b>P-15</b>	Performance of UASB reactor for natural rubber processing wastewater treatment using cultivated polyvinyl alcohol gel beads
<b>P-16</b>	Two-stage biogas production from swine manure in commercial field

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- P-17** The effect of reactor volume ratio of the dark and photo-fermentation on the bio-hydrogen production
- P-18** Producing Bioethanol and organic manure from cashew apple
- P-21** Beta-Carotene fermentation using *Rhodotorula* sp. on food industrial byproduct
- P-22** Thermophilic anaerobic co-digestion of *Chlorella* sp. with empty fruit bunch for biohydrothane production
- P-23** Inoculum acclimation improves food waste utilization for high methane production
- P-24** Study on cellulase biosynthesis by thermophilic *Streptomyces Thermoviolaceus* CX9 and the enzyme properties
- P-25** Enhanced anaerobic digestion of long chain fatty acid by adding magnetite and carbon nanotube materials
- P-26** Enhancement of lignocellulose enzymatic hydrolysis using a novel bionic flexible reactor
- P-27** Polyhydroxybutyrate (PHB) production by co-culture of *Acinetobacter junii* BP25 and *Aeromonas hydrophila* using wastewater derived from Bio-hydrogen production
- P-28** Biogas upgrading with trickling pall ring filter
- P-29** Effects of auxiliary bio-electrochemical reactor on methane production and electrochemical impact in anaerobic digestion reactor
- P-30** Bio-electrochemical activation of methanogenesis through SMA test and ANOVA
- P-31** Immobilization of *Chlorella sorokiniana* in polyvinyl alcohol for nutrient removal and biomass collection
- P-32** Application of forward osmosis process to concentrate volatile fatty acids from anaerobic digestion
- P-34** Pretreated microalgal waste as the source for bio-hydrogen production
- P-35** Two-stage thermophilic biohydrothane production from palm oil mill effluent by two-ring reactor
- P-36** Enhancement of hydrogen production through a mixed culture from anaerobic bacteria
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