Conference Program

The 2nd International Conference on Anaerobic Digastion Technology

Sustainable Alternative Bioengergy for a Stable Life

4-7 June 2018, The Empress Convention Centre, Chiang Mai, Thailand

Day 1 Monday 4th June 2018			
08:00-09:00	Registration		Moderator: Pilairuk Intapunya, Noppol Laksawasdi
09:00-09:30	Opening Ceremony		
09:30-10:20	Keynote speaker I: Plenary room Anaerobic digestion after the Paris climate agreements **Prof. Willy Verstraete** CMET, Ghent University, Belgium		
10:20-10:35	Coffee break		
10:35-11:20	Keynote speaker II: Plenary room Integrating microalgae production with anaerobic digestion: a biorefinery approach **Dr.Jean-Philippe Steyer** LBE, INRA, France		
11:20-12:00	Invited Speech I: Plenary room Anaerobic digestion (AD) Technology as an Integrated part of municipal solid waste and resource management in emerging economies **Mr.Werner Kossmann** GIZ, Thailand		
12:00-13:00	Lunch		
13:00-14:20	Poster session		
14.20-16.00	**Session Room (Chiang Mai 1)** Microbial ecology in AD Session chair: **Marcell Nikolausz**	**Session Room (Chiang Mai 2)** Bioprocess, cotrol & modeling in AD Session chair: **Noppol Leksawasdi**	**Plenary Room (Chiang Mai 3-5)** BioEnergy production & utilization Session chair: **Makarand M. Ghangrekar**
14:20-14:40	Efect of trace element limitations on microbial community dynamics and methanogenic pathways in anaerobic digesters/ **S. Kleinsteuber**, B. Wintsche, N. Jehmlich and D. Popp	Comparison of different strategies for stabilizing food waste anaerobic digestion/G. Capson-Tojo, D. Ruiz, M. Rouez, M. Crest, J.-P. Steyer, N. Bernet, J.-P. Delgenès, **R. Escudié**	Surface velocity controls the H2 consumed in dark fermentation using winery wastewater/ B. A. Albarrán Contreras, J. Carrillo-Reyes, **G. Buitrón**
14.20-14.40	High rate domestic wastewater treatment at 15^{0}C using uasb and anmbr reactor inoculated with cold-adapted sediments/ soils – shaping robust methanogenic communities/ ***E. Petropoulos*** *, Y. Yu, A. Yakubu, T. P. Curtis and J. Dolfing*	Application of soft-sensor for pH monitoring in high-pressure reactors used for mixed culture fermentation/ ***P. S. Ceron-Chafla*** *, R. E. F Lindeboom , K. Rabaey and J. B van Lier*	The effect of organic loading rate on the fouling performance of ceramic membrane in anaerobic membrane bioreactor for leachate treatment/ ***W. Khongnakorn*** *, J. Deebao and M. Héran*
15:00-15:20	Coffee break		
15:20-15:40	Impact of anaerobic co-digestion on microbial community and associated degradation pathways/ ***L. Cardona*** *, C.Madigou,C. Bureau,L. Rouillac, L. Mazeas and O.Chapleur*	ADM1 based mathematical model for effect of trace elements precipitation/dissolution on anaerobic digestion processes/ ***B. C. Maharaj,*** *M. R. Mattei, L. Frunzo, E. D. van Hullebusch and G. Esposito*	Increasing organic matter solubility and methane yield of decanter cake using autoclave pre-treatment on anaerobic digestion/ **T. Kaosol** and W. Rungarunanotai
15:40-16:00	Microbial community analysis of a hydrogen fermentation process from food waste/ I. Moreno-Andrade, **I. Mar-Alvarez**, R. J. Alcántara-Hernández and I L. I. Falcón	High crystalinity of zerovalent iron nanoparticle enchance anaerobic digestion of wastewater/ ***R. Stefan*** *, J. Jakmunee and P. Singjai*	High temperature and ultrasonic pretreatment of microalgal consortium for enhanced biogas production/**T. Moungmoon**, C. Pumas, C. Chaichana, W. Pathom-aree and J. Pekkoh
16:00-16:20	Application of enrichment cultures to enhance anaerobic digestion of lignocellulosic substrates: potentials and limitations-***M. Nikolausz*** *, E. G. Ozbayram, A. F. Leite, K. Batista and S. Kleinsteuber*	Solid Manure treatment in dry anaerobic batch digester: process performance and startup optimization/**M. Torrijos**, S. Riggio, R. Debord, G. Esposito, E.D. van Hullebusch, R. Escudié	Effect of enzymatic hydrolysis pretreatment on batch anaerobic digestion of wastewater generated in desiccated coconut processing plants/ ***B.K.T. Samarasiri*** *and P.G. Rathnasiri*
17:30-18.30	Appertizer and entertainment : Games , Ngarn Wat Fair [at The Imperial Ballroom*]		
18:30-20:30	ADTech-SAB2018 – Welcome Dinner [at The Imperial Ballroom]		

Remark *The Imperial Ballroom is on the 2nd floor of The Empress Hotel

Day 2 : Tuesday 5th June 2018			
09:30-10:20	Keynote speaker III : Plenary Room Source separation, the future of resource recovery from sewage **Prof. Grietje Zeeman** LeAF BV/ Emeritus professor of Wageningen University, The Netherlands		Moderator: Prasad Kaparaju
10:20-10:35	Coffee break		
10:35-11:20	Keynote Speaker IV: Plenary Room Apply char-based additives to anaerobic bioprocesses: the known and the unkonwn **Prof. PinJing HE** Tongji University, China		
11:20-12:00	Invited Speech II: Plenary Room Green movements towards a new paradigm for sustainable and conscious living **Ms.Nisara Wangratanasopon** Chiang Mai University, Thailand		
12:00-13:00	Lunch		
13:00-13:40	Poster session		
13.40-16.00	**Session Room [Chiangmai 1]** Microbial ecology & BioEnergy Session chair: **Jean-Jacque Godon**	**Session Room [Chiangmai 2]** Bioprocess, cotrol modeling in AD Session chair: **Joseph V Thanikal**	**Plenary Room [Chiangmai 3-5]** BioEnergy production & utilization Session chair: **Ruben Michael Ceballos**
13:40-14:00	Native microbial consortia analysis during the semi-continuous hydrogen production from diverse lignocellulosic biomasses/ **O. Ayala**, I. Valdez-Vazquez and A. Sanchez	Precise pretreatment or selective pretreatment of biowaste: concept and practice/ ***F. Lü***, *L.M. Shao and P.J. He*	Phenol-activated persulphate [$S_2O_8^{2-}$] as efficient terminal electron acceptor to improve bioenergy recovery from microbial fuel cell/ *Md. T. Noori, G. D. Bhowmick, O.M. Ghangrekar, P. Dhamu, S. Fadanavis,* ***M. M. Ghangrekar*** *and C.K. Mukherjee*
14:00-14:20	Integration of straw mushroom [*volvariella volvacea*] cultivation and solid state anaerobic digestion for utilization of empty fruit bunches/ ***S. O-Thong***, *P. Kongjan and P. Prasertsan*	Effects of agitation speed and gas recirculation on hydrogen supersaturation and dark fermentation by *thermotoga neapolitana/* ***G. Dreschke***, *S. Papirio, G. d'Ippolito, A. Panico, P. Lens, A. Fontana and G. Esposito*	Pretreatment of water hyacinth for biohydrogen production via anaerobic digestion./ ***C. Jarusiripot***, *D. Sungthong, and P. Chairat-uthai*
14:20-14:40	Methane productions of five different microalgae species/ *N. A. Perendeci,* ***V. Yilmaz***, *B. Ertit Taştan, M. Fardinpoor and M. Şahan*	Performance of a bench-scale sulfur oxidizing bacterial biofilter on treating real biogas/ **K. Rujisangvittaya** and S. Phoolphundh	Batch and continuous fermentation of palm oil mill effluent for production of hydrogen under thermophilic condition using *thermoanaerobacterium sp.* psu-2/ ***P. Prasertsan***, *S. O-Thong and J. Seengenyoung*
14:40-15:00	Hydrogen production in microbial electrolysis cell using an acidogenic effluent from food waste fermentation/ *R. Cardeña, I. Moreno-Andrade and* ***G. Buitrón***	Efficency of alkaline pretreatment of sorghum and miscanthus before batch dry codigestion with cattle manure /*H. L. Thomas, R. Escudié, J.P. Delgenès and* ***H. Carrere***	High level of cellulolytic activity and butanol production from lignocellulosic biomass by *geobacillus sp*. Pk12/ ***A. Singkhala***, *N. K. Birkeland, C. Niyasom and S. O-Thong*
15:00-15:20	Coffee break		
15:20-15:40	Improving the methane production rate from paragrass through anaerobic digestion under thermophilic condition/ ***S. Nuchdang*** *and C. Phalakornkule*	Biochemical methane potential [BMP] from latex lutoid and concentrated latex wastewater [CLW] by integrated pyrolysis and anaerobic digestion/ ***L. Seaseng***, *R. Jariyaboon J. Tasara, P. Kongjan*	Continuous bio-hythane production from two-stage anaerobic co-digestion of palm oil mill effluent [POME] and ceratophyllum demersum/ ***P. Kongjan***, *N. Usmanbaha, S. O-Thong and R. Jariyaboon*
15:40-16:00	Chain elongation with lactate producing medium-chain carboxylates by a semi-continuously fed anaerobic reactor microbiome/ ***Bin Liu***, *Sabine Kleinsteuber, Heike Sträuber*	Performance and characteristics of anaerobic biofim [ABF] reactors treating domestic grey-water/ *Himanshu K Khuntia* **, Hoysall Chanakya**	Effect of intermittent mixing on biogas production during anaerobic fermentation of high-strength wastewater/ ***A. Kurniawan***, *M. Sibag and J. Cho*
16.00-16.20	Coenzyme F420 activity of anaerobic mono- and co-digestion of food waste amended with trace elements/ ***Burhan Shamurad***, *Neil Gray and Paul Sallis*	Utilization of nutrients in wastewater for algae production with simultaneous energy recovery by a novel stacked microbial desalination cell and microbial carbon capture cell system/ ***Neethu. B***, *M. M. Ghangrekar*	Interpretation of biogas production from potential biomass feedstock and synthetic cellulose through analytical techniques/ ***D. Yadav***, *A. Rollinson, R. Blanchard, A. Wheatley and T. Radu*

Day 3 : Wednesday 6th June 2018			
9:30-10:20	Keynote speaker V: Plenary Room — Moderator: Nisara Wangratanasopon Role of anaerobic digestion in developing next generation **Prof. Damien Batstone** University of Queensland, Australia		
10:20-10:35	Coffee break		
10:35-11:20	Keynote Speaker VI: Plenary Room Lignocellulose Deconstruction using a Mobile Enzyme Sequestration Platform (MESP) constructed from proteins of the anaerobic bacterium clostridium thermocellum and the hyperthermophilic archaeon sulfolobus shibatae with a light sprinkle of nanotechnology **Dr. Ruben Michael Ceballos** University of Arkansas (Fayetteville), USA		
11:20-12:00	Invited Speech III: Plenary Room Biogas technology application to manage waste and wastewater of palm oil mill for energy and environmental conservation **Mr. Weerapan Kiatpakdee** Natural Power Co., Ltd., Thailand		
12:00-13:00	Lunch		
13.00-14.40	**Session Room (Chiangmai 1)** BioEnergy production & utilization Session chair: **Grietje Zeeman**	**Session Room (Chiangmai 2)** Bioprocess, cotrol modeling in AD Session chair: **Michel Torrijos**	**Plenary Room (Chiangmai 3-5)** BioEnergy production & utilization Session chair:**Jean-Philippe Steyer**
13:00-13:20	Integrated bioprocess for biogas and biocrude production from sugarcane industry wastes/ ***P. Kaparaju*** *, Z. Zhang, A. Latif, P. Paulose, L. Moghaddam, W. Doherty and I. O'Hara*	Hydrothermal post-treatment of digestate to maximize the methane yield from the anaerobic digestion of microalgae/ *Serge R. Guiot,* ***Sasikarn Nuchdang*** *, Jean-Claude Frigon, Caroline Roy and Chantaraporn Phalakornkule*	Anaerobic co-digestion of food waste along with slaughter house fat/ *Inshirah Ahmed Mohammed Al-Maskari,* ***Joseph V Thanikal,*** *Hatem Yazidi, Abubacker K M*
13:20-13:40	Ethanol and biogas productions from cassava pulp by biorefinery approach/ ***N. Parnkheaw*** *, K. Mukkata, S. Koonaphapdeelert and S. Nitayavardhana*	Biochemical methane potential of distillery spent wash generated from ethanol fermentation at different inoculum to substrate ratio-***A. Salaeh*** *, R. Jariyaboon, J. Tasara, B. Krisornpornsan and P. Kongjan*	Preparation of fuel ethanol by continuous simultaneous saccharification and fermentation-***Zhang Quan*** *and Guan Hao*
13:40-14:00	Different catalyst combinations investigation for Field scale applicability in bioelectric toilet microbial fuel cell/ *Indrasis Das, Dipak A. Jadhav, Md. T. Noori,* ***Makarand M. Ghangrekar*** *, A. Rajakumar*	Utilization of nutrients in wastewater for algae production with simultaneous energy recovery by a novel stacked microbial desalination cell and microbial carbon capture cell system/ ***Neethu. B*** *, M. M. Ghangrekar*	Two-stage temperature phase anaerobic co-digestion of waste acttivated sludge and greasy sludge/ ***K. Sani*** *, R. Jariyaboon and P. Kongjan*
14:00-14:20	Biogas Production From Water Hyacinth/ ***S. Hasin*** *, T. Sookkumnerd, G. Sirijeerachai and A. Wongkoblap*	Enhancing of sugarcane bagasse hydrolysis by using pyrolysis pretreatment/ **S. Sa-oh**, R. Jariyaboon, *P. kongjan, J. Tasara and B. Krisornpornson*	Hydrogen production from organic solid waste in a sequencing batch reactor: Effect of hydraulic and solids retention time/ *S. Santiago and* ***I. Moreno-Andrade***
14:20-14:40	Banana wastes to methane energy: effect of alkali and steam pretreatment/ ***Supachai Hirunsupachote*** *and Jirasak Tharajak*		Anaerobic tri-digestion of sewage sludge, palm oil mill effluent (POME),and food waste for enhanced biogas production from organic waste in Malaysia /**Mohamed Abdulrahman Alsamet**, Masafumi Goto and Saqr Abdulrakeeb Al-Muraisy
14:40-15:00	Coffee break		
15.00-15.30	Closing ceremony		

Day 4 : Thursday 7th June 2018 (Optional)	
07.30-17.00	Excursion (Optional)