



## International Conference on the 4th Industrial Revolution and its Impacts

### Program of Presentations

|  |   |
|--|---|
| <b>Wednesday, 27 MARCH 2019 (Time 14.00-17.00)</b>                       |   |
| <b>Theme: Impacts on Science and Technology</b>                          |   |
| <b>Session: Biorefinery for Sustainable Oil-Palm Industry (Room 202)</b> |   |
| <b>Session Chair:</b> Assoc. Prof. Dr. Kamchai Nuithitikul               |   |
| <b>Session Co-chair:</b> Dr. Wichitpan Rongwong                          |   |
| 14:00-15:00  | <p><b>Keynote lecture:</b> Biorefinery for Sustainable Oil-Palm Industry</p> <p>By Prof. Norli Ismail</p> <p>School of Industrial Technology, Universiti Sains Malaysia Penang, Malaysia</p>  |
| 15:00-15:15  | <p><b>OP156</b></p> <p>Biochemical Methane Potential of Palm Oil Mill Effluent (POME) Co-Digested with Rubber Latex Effluent (LTE): Effect of POME/LTE Ratio and Temperature</p> <p>By Nattawut Yingthavorn, Laddawan Noynoo, Tammathat Boonkamnerd, Chairat Siripatana and Nirattisai Rakmak</p> |
| 15:15-15:30  | <p><b>OP46</b></p> <p>Evaluating Biomethane Potential of Inocula from Different Active Biogas Digesters for Palm Oil Mill Effluent by BMP and SMA: Effect of Dilution and Sources</p> <p>By Sawinee Sangsri, Chairat Siripetana, Nirattisai Rakmak, Pornwimon Wadchasisit and Sunwanee Jijai</p>  |
| 15:30-15:45  | <p><b>OP35</b></p> <p>Production of Biohydrogen from Oil Palm Empty Fruit Bunch Hydrolysate in Solar Tubular Photobioreactor</p> <p>By Suriya Palamae, Wanna Choorit and Yusuf Chisti</p>   |
| 15:45-16:00  | <p><b>OP98</b></p> <p>Production of Volatile Fatty Acid in Biogas Digester with Coal Media</p> <p>By Ellin Harlia, Eulis Tanti Marlina and Khairunnisa Nur Rahmah</p>   |

|             |  |
|-------------|--|
| 16:00-16:15 | <b>OP41</b><br>Enzymatic Hydrolysis of Cellulose Derived Oil Palm Empty Fruit Bunch Fibers for Ethanol Production<br>By Somruethai Bouyam and Wanna Choorit  |
| 16:15-16:30 | <b>OP28</b><br>Xylooligosaccharides Production of Hemicellulose Recovered From Pretreatment Process of Oil palm Empty Fruit Bunch Fiber<br>By Zainab Rathamat, Wanna Choorit and Poonsuk Presertsan  |
| 16:30-16:45 | <b>OP42</b><br>Optimization of Alkalization for Carboxymethyl Cellulose Production from Cellulose Derived Oil Palm Empty Fruit Bunch<br>By Benyathip Yimlamai, Wanna Choorit and Wen-Chien Lee   |
| 16:45-17:00 | <b>OP155</b><br>Quality Improvement of Syngas from Gasification Process of Palm Kernels Using NiO/CaO Catalysts on Ceramic Supporters in Coupled with Biochar Adsorbents from Agricultural Residues<br>By Suttipong Rattunahir, Wipawee Khamwichit and Attaso Khamwichit |

**Session: Wood and Other Bio-based Materials (Room207)**

**Session Chair:** Asst.Prof.Dr. Sureurg Khongtong

**Session Co-chair:** Asst.Prof.Dr. Uthen Thubsuang

|             |   |
|-------------|---|
| 14:00-14:45 | <b>Keynote lecture:</b> Facile Synthesis of 3D Nitrogen-rich Hierarchical Porous carbon for Supercapacitors<br>By Assoc.Prof.Dr. Thanyalak Chaisuwan<br>The Petroleum and Petrochemical College, Chulalongkorn University, Thailand |
|-------------|---|

**Session I: Wood composites**

**Session Chair:** Assoc.Prof.Dr. Pannipa Chaowana

**Session Co-chair:** Asst.Prof.Dr. Prachid Saramolee

|             |  |
|-------------|--|
| 14:45-15:05 | <b>OP30</b><br>Properties of High Density Fiberboard Mixed with Poplar Bark<br>By Zoltán Pásztor, Kata Halász, Zoltán Börcsök and Suthon Srivaro |
| 15:05-15:25 | <b>OP100</b>   |

|  |  |
|--|--|
|  | <p>Mechanical Properties Assessment of Laminated Veneer Lumber from Teak Plantation in Laos</p> <p>By Khonethong Soukphaxay, Khamtan Phonetip, Latsamy Boupha, Lothim Saetern, Khamxay Khammanivong and Fu FYu</p> |
| 15:25-15:45  | <p><b>OP112</b></p> <p>Tunable Wood: The Effect of Embedded Polymer</p> <p>By Benjama Meethaworn and Sureurg Khongtong</p>   |
| 15:45-16:05  | <p><b>OP110</b></p> <p>Development of Structural Insulated Panel Made from Natural Rubber</p> <p>By Nussalin Thongcharoen, Supanit Wisadsatorn, Sureurg Khongtong, Suthon Srivaro and Pannipa Chaowana</p>         |
| <p><b>Session II: Wood processing</b></p>  |  |
| <p><b>Session Chair:</b> Assoc.Prof.Dr. Nirundorn Matan</p> <p><b>Session Co-chair:</b> Asst.Prof.Dr. Suthon Srivaro</p> |  |
| 16:05-16:25  | <p><b>OP20</b></p> <p>The Drying Kinetics of Para Rubber Wood in a Kiln Drying</p> <p>By Malisa Chanpet, Nirattisai Rakmak, Nirundorn Matan and Chairat Siripattana</p>  |
| 16:25-16:45  | <p><b>OP108</b></p> <p>Stress Relaxation Measurement of Kiln-Dried Rubberwood Lumber Using a Force Based Technique</p> <p>By Satjapan Leelatanon, Sataporn Jantawee, Sornthep Vannarat and Nirundorn Matan</p>     |
| 16:45-17:05  | <p><b>OP106</b></p> <p>Numerical Modeling of Internal Stress Within Restrained Half-Split Lumber</p> <p>By Peeraya Settapong, Satjapan Leelatanon and Nirundorn Matan</p>  |
| 17:05-17:25  | <p><b>OP89</b></p> <p>Role of Fiber on Collapse of Parenchyma Cells in Oil Palm Wood</p> <p>By Choosak Rittiphet and Nirundorn Matan</p>   |
| 17:25-17:45  | <p><b>OP105</b></p> <p>Effect of Ethanol on Collapse in Oil Palm Wood During Drying</p> <p>By Kamolwun Dumyang and Nirundorn Matan</p>   |

| Session: Emerging Technology for Foods (Room 201)  |  |
|--|--|
| <b>Session Chair:</b> Prof. Dr. Saichol Ketsa<br><b>Session Co-chair:</b> Assoc. Prof. Dr. Narumol Matan |  |
| 14.00-14.45  | <b>Keynote lecture I:</b> Emerging Packaging Technologies to Improve Food Safety and Quality<br>By Prof. Dr. Kit Keith L.Yam<br>Department of Food Science, Rutgers University, The State University of New Jersey, USA  |
| 14.45 -15.00   | Coffee Break   |
| 15.00-15.45  | <b>Keynote lecture II:</b> Emerging Drying and Roasting Technologies for Foods and Biomaterials<br>By Prof. Dr. Sakamon Devahastin<br>Department of Food Engineering, King Mongkut's University of Technology Thonburi, Thailand   |
| 15.45-16.00  | <b>OP99</b><br>The Effect of Neem Leaves ( <i>Azadirachta indica</i> A. Juss) Application as a Natural Disinfectant on Decreasing Number of Bacteria and Fungi in Poultry Incubator<br>By Yuli Astuti Hidayati, Eulis Tanti Marlina, Khairunnisa Nur Rahmah and Ellin Harlia |
| 16.00-16.15  | <b>OP29</b><br>Off-Odor Development in Catfish ( <i>Clarias macrocephalus</i> × <i>Clarias gariepinus</i> ) Muscle During Cold Storage<br>By Hatairad Phetsang, Worawan Panpipat, Ingrid Undeland and Manat Chaijan  |
| 16.15-16.30  | <b>OP54</b><br>Development of Antimicrobial Packaging Based on Coconut Fibre Mixed with Citronella Oil for Inhibiting Natural Microbial Compounds for Extending Shelf-life of Semi Dried Shrimp<br>By Prangthip Parichanon   |
| 16.30-16.45  | <b>OP45</b><br>Feasibility of Bio-based Solvents on Phenolic Profile And in Vitro Bioactivities of Phenolic Extracts Recovered from Mangosteen ( <i>Garcinia mangostana</i> Linn) Pericarp<br>By Chatchai Sungpud, Manat Chaijan, Attawadee Sae-Yoon and Worawan Panpipat    |
| 16.45-17.00  | <b>OP56</b>  |

|             |  |
|-------------|--|
|             | Integration of Orange Oil with Carnuba Wax Coating for Controlling Physiological Changes and Aroma Enhancing of Postharvest Salacca Fruit<br>By Saifon Phothisuwan |
| 17.00-17.45 | <b>OP55</b><br>Consumer's Attitude on The Innovative Improvement of Thai Desserts<br>By Sumethee Songsamoe   |

|   |
|---|
| <b>Session: Functional and NanoMaterials (Room 209)</b> |
|---|

|  |
|--|
| <b>Session Chair:</b> Assoc. Prof. Dr. David Harding |
|--|

|             |  |
|-------------|--|
| 14.00-14.30 | <b>Keynote lecture:</b> Functional and NanoMaterials<br>By Prof. Santi Maensiri<br>School of Physics, Suranaree University of Technology, Thailand |
|-------------|--|

|                                       |
|---------------------------------------|
| <b>The Best Thesis Award Ceremony</b> |
|---------------------------------------|

|             |  |
|-------------|--|
| 15:00-15:15 | <b>OP33</b><br>Design and Fabrication of Tantalum Oxide Based Nanomaterials for Photocatalytic Applications<br>By Muhammad Nawaz |
|-------------|--|

|             |  |
|-------------|--|
| 15:15-15:30 | <b>OP154</b><br>Natural Rubber Modification as Pre-vulcanized Latex Impregnated with TiO <sub>2</sub> for Photocatalytic Degradation of Gaseous Benzene in Indoor Air<br>By Peerapol Kaoien, Wipawee Khamwichit, Attaso Khamwichit and Kowit Suwannahong |
|-------------|--|

|             |  |
|-------------|--|
| 15:30-15:45 | <b>OP152</b><br>Synthesis and Characterization of TTIP-Al films and Fe <sup>3+</sup> /TTIP-Al films to be Used in Photocatalytic Oxidation under Visible Light<br>By Ketsara Intawong, Wipawee Khamwichit and Siriuma Jawjit |
|-------------|--|

|             |  |
|-------------|--|
| 15:45-16:00 | <b>OP180</b><br>Defect chemistry analysis of low-temperature dielectric properties in n-type CeO <sub>2</sub><br>By Pannawit Tipsawat, Taras Kolodiazhnyi and Santi Maensiri |
|-------------|--|

|             |  |
|-------------|--|
| 16:00-16:15 | <b>OP67</b><br>Gelation of a Mixture of Tamarind Seed Xyloglucan and Gallic Acid in Aqueous Solution: Simulation and Theoretical SAXS Profiles<br>By Sampart Cheedket, Namon Hirun, Vimom Tantishaiyakul and Supaporn Dokmaisrijan |
|-------------|--|

|             |   |
|-------------|---|
| 16:15-16:30 | <b>OP88</b><br>Investigating Drug Release Properties and Hydroxyapatite Formation on 45S5 and S53P4 Bioactive Glasses<br>By Reedwan Bin Zafar Auniq and Upsorn Boonyang                                   |
| 16:30-16:45 | <b>OP96</b><br>Microfluidic Synthesis of Molecular Iron(III) Spin Crossover Material<br>By Sharon Lazaro, Phimpaka Harding, Juan Gonzales-Estefan, Mathieu Gonidec, Guillaume Chastanet and David Harding |
| 16:45-17:00 | <b>OP115</b><br>Monomeric Iron(III) Spin Crossover Complexes<br>By Warisa Thammasangwan and David Harding   |

**Theme: Impacts on Health Science**

**Session: Infectious Diseases/ Public Health/ Natural Products (Room 217)**

**Session Chair:** Assoc. Prof. Dr. Veeranoot Nissapatorn

Assoc. Prof. Dr Sahapat Barusrux

|                                       |  |
|---------------------------------------|--|
| 14.00-15.00                           | <b>Keynote lecture I:</b> Infectious Diseases<br>By Prof. Dr. Wei Wang<br>School of Pharmacy, Hunan University of Chinese Medicine, China  |
| 15.00-16.00                           | <b>Keynote lecture II:</b> Get Ready<br>By Assoc. Prof. Christophe Wiart<br>School of Pharmacy, University of Nottingham Malaysia, Malaysia  |
| <b>Session I: Infectious Diseases</b> |  |
| 16:00-16:20                           | <b>OP12</b><br>Prevalence of Multidrug resistance Acinetobacter baumannii Isolated from Different Clinical Specimens, Central Referral Hospital, Sikkim, India<br>By Deepan Gautam, Karma G. Dolma, Christophe Wiart and Veeranoot Nissapatorn |
| 16:20-16:40                           | <b>OP38</b><br>Multidrug Resistant Gram Negative Bacilli (MDR-GNB): an Emerging Crisis in Sikkim, a Small Hilly State in Northeast India<br>By Karma Dolma, Jyotsna Kapil, T.S.K. Singh and Veeranoot Nissapatorn                              |
| 16:40-17:00                           | <b>OP134</b>   |

NAT2 Gene Polymorphisms and Plasma Isoniazid Concentration in Vietnamese  
Tuberculosis Patients

By Nhung Pham Thi Hong, Tuan Le Anh, Long Dinh Doan, Luyen Le Thi and Thom Vu  
Thi

**Thursday 28 MARCH 2019 (Time 09.00-12.00)**

**Theme: Impacts on Environmental Science (Room202)**

**Session: Waste Management and Utilization/ Environmental Modeling and Assessment**

**Session Chair:** Asst. Prof. Dr. Amonsak Sawusdee

**Session I : Waste Management and Utilization**

|             |   |
|-------------|---|
| 09:00-09:20 | <b>OP146</b><br>Anaerobic Digestion of Synthetic Wastewater (Acetate): Effect of COD and C/N Ratio in Batch Mode<br>By Laddawan Noynoo, Hathaikarn Thongpan, Sunwanee Jijai, Nirattisai Rakmak and Chairat Siripatana |
| 09:20-09:40 | <b>OP32</b><br>Solid Waste Management in Linamon, Lanao del Norte<br>By Glaiza Paragoso, Cherine Mae Sapar, Joy Magsayo, Myrna Lahoylahoy and Rica Mae Guarin   |
| 09:40-10:00 | <b>OP144</b><br>Arsenic Adsorption Characteristics of the Sediment Soils under a Waterway in Old Mining Area<br>By Chairat Siripatana, Suma Nookaew, Chuthamat Rattikanukha and Laddawan Noynoo                       |
| 10:00-10:20 | <b>OP03</b><br>Waste Management Practices of Faculty, Students and Staffs: A Comparison<br>By Marisol Foronda   |
| 10:20-10:40 | <b>OP90</b><br>Analysis of the Effect of Population Density and Habit of the Head of the Family on the Cleaning of Sewerage Channels<br>By Arfah Husna and Marniati   |
| 10:40-11:00 | <b>OP97</b><br>Strengths of the Effect of Environmental Hygiene and Water Sources on Dermatitis Events in Coastal Communities<br>By Marniati and Arfah Husna  |
| 11:00-11:20 | <b>OP50</b>   |



|             |  |
|-------------|--|
|             | Usability of Eco-brick at Dansalan College Foundation, Incorporated<br>By Samaratul-Qalbie Yusoph, Mohammad Asraf Abdulrahman, Hanie Monjarah<br>Marohombsar, Mohammad Rayan Rangaig and Glaiza Paragoso                           |
| 11:20-11:40 | <b>OP145</b><br>Effect of Rice Husk by Pretreatment with Potassium Permanganate (KMnO <sub>4</sub> ) for the<br>Potential of Biogas Production<br>By Tammathat Boonkamnerd, Chairat Siripatana, Laddawan Noynoo and Sunwanee Jijai |
| 12.00-13.00 | Lunch Time (Lecture building 5)  |

|   |  |
|---|--|
| <b>Theme: Impacts on Social Science (Room 207)</b>  |  |
| <b>Session: Law and Supra-national Mechanism/ Gender/ Social Capital and Development/ Education</b> |  |
| <b>Session Chair:</b> Dr. Amporn Marddent   |  |
| <b>Session Co-chair:</b> Assist. Prof. Vithaya Arporn, Simon Moxon, and Thassanee Thasrabiab        |  |
| <b>Session I: Session I: Law and Supra-national Mechanism</b>                                       |  |
| 09:00-09:20   | <b>OP120</b><br>The 4th Industrial Revolution Requires Strong Intellectual Property Laws: Where Does<br>Thailand Stand?<br>By Nucharee Nuchkoom Smith  |
| 09.20-09.40   | <b>OP121</b><br>How Can Least Developed Member Countries of ASEAN Benefit From the 4th Industrial<br>Revolution?<br>By Robert Smith  |
| <b>Session II: Gender</b>   |  |
| 09:40-10:00   | <b>OP122</b><br>Political Language of Women, Peace and Security: Learning from Academic Meeting to<br>Women Advocacy in Southeast Asia<br>By Amporn Marddent   |
| 10:00-10.20   | <b>OP159</b><br>Partial Mediating Effect of Job Stress between Glass Ceiling-Gender Discrimination and<br>Organizational Commitment: A Study of Banking Sector of Pakistan<br>By Abeer Imam, Aiman Raza and Hasnain Raza |
| 10.20-10.40   | Coffee Break   |

| Session III: Social Capital & Development |  |
|---|--|
| 10.40-11:00                               | <p><b>OP148</b></p> <p>SWOT Analysis for Determining Sustainability Development Strategy of the Local Enablers Community, a Social Business Ecosystem at Universitas Padjadjaran, Jatinangor, Indonesia</p> <p>By Koko Iwan Agus Kurniawan and Chutima Waisarayutt</p> |
| 11:00-11:20                               | <p><b>OP160</b></p> <p>Impact of Job Stress on Job Satisfaction Among Employees of Banking Sector of Pakistan in Presence of Social Capital (A Mediator)</p> <p>By Aiman Raza, Hasnain Raza and Abeer Imam</p>   |
| Session IV: Education                     |  |
| 11:20-11:40                               | <p><b>OP04</b></p> <p>Modified Bingo Chromosome: An Effective Tool in Teaching Chromosomal Identification</p> <p>By Marisol Foronda</p>  |
| 11:40-12:00                               | <p><b>OP141</b></p> <p>Transforming Education towards the Fourth Industrial Revolution - The Case of Brunei Darussalam</p> <p>By Syamimi Ariff Lim, Masairol Masri and Hazri Kifle</p>   |
| 12.00 – 13.00                             | Lunch (Lecture building 5)   |

| Theme: Impacts on Science and Technology  |  |
|---|--|
| Session: Emerging Technology for Foods (Room 201)   |  |
| <p><b>Session Chair:</b> Prof.Dr.Sakamon Devahastin</p> <p><b>Session Co-chair:</b> Assoc.Prof.Dr.Manat Chaijan</p> |  |
| 9.00-10.00  | <p><b>Keynote lecture:</b> Food Safety</p> <p>By Rutjawate Taharnklaew</p> <p>Vice President, R&amp;D Center, Betagro Public Company Limited</p>                                     |
| 10.00-10.15   | <p><b>OP52</b></p> <p>Susceptibility of Mango to Natural Mold Growth During Storage in Package Containing Peppermint Oil Absorbed Activated Carbon</p> <p>By Siriporn Chaemsanit</p> |
| 10.15-10.30   | <p><b>OP74</b></p> <p>Development of Bamboo Food Packaging Materials Containing <i>Litsea cubeba</i> Oil for</p>   |

|             |   |
|-------------|---|
|             | <p>Extending Shelf-life of Dried Fish</p> <p>By Kitiya Suhem</p>  |
| 10.30-10.45 | Coffee Break  |
| 10.45-11.00 | <p><b>OP73</b></p> <p>Effects of Dietary Fiber on Growth Performance, Fecal Ammonia Nitrogen, and Gastrointestinal Tract pH in Broilers from 1 to 21 Days of Age</p> <p>By Sabilio dos Santos, Chaowanee Laosutthipong, Koh-En Yamauchi, Narin Thongwittaya and Janjira Sittiya</p> |
| 11.00-11.15 | <p><b>OP104</b></p> <p>Motility, Viability and Abnormality of the Spermatozoa of Bali Bull with Andromed® and Egg Yolk Tris Extenders Stored at 4-5°C</p> <p>By Suhardi -, Nova Megawati, Fikri Ardhani and Suwit Wuthisuthimethavee</p>  |
| 11.15-11.30 | <p><b>OP102</b></p> <p>Effect of Diet Supplemented with WU-probiotic on the Expression of the Immune Genes in Pacific White Shrimp (<i>Litopenaeus vannamei</i>)</p> <p>By Chettupon Pooljun, Pitchanee Jariyapong, Sataporn Direkbusarakom and Suwit Wuthisuthimethavee</p>        |
| 11.30-11.45 | <p><b>OP151</b></p> <p>Modified Filtered Pipes for Shrimp Farm Water Treatment</p> <p>By Songwut Phatkaew, Wanlapha Molex, Montri Srisomsong, Natee Kraokaew, Jiraporn Somkerd and Sataporn Direkbudsarakom</p>   |
| 11.45-12.00 | <p><b>OP113</b></p> <p>Effects of Microwaves Drying on Characteristics and Nutritional Quality of Tapioca-Pumpkin Puffed Cracker</p> <p>By Warasri Saengkrajang, Jureeporn Nounmusig, Arjaree Naksuwan and Karaket Wattanasit</p>   |
| 12.00-12.15 | <p><b>OP59</b></p> <p>Development of Brown Rice Microwaveable Bags from Fungal Paper Containing Orange Oil</p> <p>By Sirimas Sukmas, Narumol Matan and Tanong Aewsiri</p>   |
| 12.15-12.30 | <p><b>OP60</b></p> <p>Development of Natural Plant Fibre Packaging Incorporated Hot Tangerine Oil Vapour for Antifungal and Application to Dried Banana</p>   |

|       |                           |
|-------|---------------------------|
|       | By Ravinun Saengwong-Ngam |
| 12.30 | Closing Remarks & Awards  |

| Smart Hospital (side event, Room: 209)        |   |
|---|---|
| Session Chair: Asst.Prof.Dr. Niyom Kamlangdee |   |
| 09.00-10.00                                   | <b>Keynote lecture I:</b> Taiwan Going Southbound<br>By Dr. Nina KAO Hsiao-Ling<br>CEO of Overseas Medical Mission Center, Changhua Christian Hospital, Taiwan                                  |
| 10.00-11.00                                   | <b>Keynote lecture II:</b> Delivering Inclusive Smart Healthcare by Innovative and Comprehensive e-Health System<br>By Dr. LEE Kwo-Whei<br>Superintendent of Yuanlin Christian Hospital, Taiwan |

| Theme: Impacts on Science and Technology                 |   |
|--|---|
| Session: Information Technology (Room 209)               |   |
| Session Chair: Assoc. Prof. Dr. Wattanapong Kurdthongmee |   |
| Session I: Algorithm Design and Development              |   |
| 11:00-11:15  | <b>OP127</b><br>Theses and Capstone Projects Plagiarism Checker using Kolmogorov Complexity Algorithm<br>By Marco Jr. Del Rosario and Julius Sareno |
| 11:15-11:30  | <b>OP130</b><br>Student Paper Comparison System using Kolmogorov Complexity and Diff Algorithm<br>By Marco Jr. Del Rosario                          |
| Session II: Network and IoT                              |   |
| 11:30-11:45  | <b>OP184</b><br>CRAIoT : Concept, Review and Application(s) of IoT<br>By Rahul Johari, Riya Bhatia and Kalpana Gupta                                |
| 11:45-12:00  | <b>OP185</b><br>Pattern Oriented Routing in Wireless Network: Concept & Challenges  |

|             |  |
|-------------|--|
|             | By Riya Bhatia, Rahul Johari and Prachi Garg |
| 12.00-13.00 | Lunch Time (Lecture building 5)              |

**Theme: Impacts on Health Science**

**Session II: Public Health (Room 217)**

**Session Chair:** Prof. Dr Thom Vu Thi  
Assist. Prof. Dr Muhammad Nawaz

|             |  |
|-------------|--|
| 09:00-09:20 | <b>OP40</b><br>Risk Factors For Non-Communicable Diseases In Adults<br>By Zahtamal, Tuti Restuastuti, Fififa Chandra and Ridha Restila   |
| 09:20-09:40 | <b>OP114</b><br>The Strength of 20 Communities after the Central Organization Network drove the Healthy Community<br>By Urai Jaraeprapal and Kamlai Somrak   |
| 09:40-10:00 | <b>OP72</b><br>Analysis of Reactive Oxygen and Nitrogen Species in Plasma-Activated Medium (PAM) Generated by Low Temperature Argon Plasma Jet<br>By Siwanut Pummarin and Pimchanok Pimton   |
| 10:00-10:20 | <b>OP166</b><br>Prevalence of Porcine Circovirus Type 2 (PCV-2) in Smallholder Pig Farm in Thung-Yai district, Nakhon Si Thammarat, Thailand<br>By Vassakorn Khophloiklang, Aekkapot Chamkasem, Ladawan Sariya, Pornsak Nara-Arj, Manta Poomikasemsak, Kosit Areekit, Nilobol Kamyun, Suttida Sangpum and Dusit Laohasinnarong |
| 10:20-10:40 | Coffee Break   |

**Session Chair:** Prof. Dr Cristina C. Salibay  
Assoc. Prof. Dr Karma G. Dolma

|             |  |
|-------------|--|
| 10:40-11:00 | <b>OP135</b><br>Relation Between Single Nucleotide Polymorphism rs3738423 (C>T) of NPHS2 Gene and Some Biochemical Parameters in Pediatrics Nephrotic Syndrome Patients<br>By Nga Vu Van, Nhung Pham Thi Hong, Quy Dam Van, Dem Pham Van, Huong Nguyen Thi Quynh, Long Dinh Doan and Thom Vu Thi |
|-------------|--|

|               |   |
|---------------|---|
| 11:00-11:20   | <b>OP77</b><br>Importance Performance Analysis for Improving Patient Services in a Cardiology Department in a Thai Public Hospital<br>By Pornthipa Ongkunaruk and Roongrat Pisuchpen                                    |
| 11:20-11:40   | <b>OP101</b><br>Diagnosis and Prevalence of Hookworm Infection and Strongyloidiasis in Schoolchildren in Rural Southern Thailand<br>By Blego Sedionoto, Sueptracool Wasessombat, Suchard Punsawad and Witthaya Anamnart |
| 12.00 – 13.00 | Lunch Time (Lecture building 5)   |

**Thursday 28 MARCH 2019 (Time 13.00-16.00)**

**Theme: Impacts on Environmental Science (Room202)**

**Session II: Environmental modelling and assessment**

**Session Chair:** Asst. Prof. Dr. Amonsak Sawusdee

|             |  |
|-------------|--|
| 13:00-13:20 | <b>OP85</b><br>Various Models and Transmission Protocols for Air Pollution Monitoring in WSN: A Review<br>By Ekta Dixit and Vandana Jindal   |
| 13:20-13:40 | <b>OP02</b><br>Analysis of Landuse Land Coverage Dynamics and Its Effects on Rainfall-Runoff and Runoff-Sediment Patterns in Yom River Basin Thailand<br>By Aksara Putthividhya  |
| 13:40-14:00 | <b>OP71</b><br>Evaluation of Forest Habitat Connectivity for the Malayan Tapir ( <i>Tapirus indicus</i> ) in Khao Luang Forest Complex and Khao Banthad Forest Complex, Thailand<br>By Naparat Suttidate and Damisa Kaminsin |
| 14:00-14:20 | <b>OP132</b><br>Energy Fluxes and Evapotranspiration in a Rubber Agroecosystem of the Southern Thailand<br>By Watcharee Ruairuen, Javier Fochesatto, Poonpipope Kasemsap and Chompunut Chayawat                              |

| Theme: Impacts on Science and Technology                  |   |
|---|---|
| Session: Engineering Modeling and Applications (Room 207) |   |
| Session Chair: Asst. Prof. Dr. Chairat Siripatana         |   |
| 13:00-13:20   | <b>OP107</b><br>Design of Turbo-Generator for The Vehicle Exhaust Energy Recovery<br>By Prasert Nonthakarn  |
| 13:20-13:40   | <b>OP111</b><br>Thermoelectric Unit for The Water Heat Engine Cooling Energy Recovery<br>By Prasert Nonthakarn and Sutaporn Getpun  |
| 13:40-14:00   | <b>OP19</b><br>Mechanical Properties and Cost-minimized Design of 6-liter PET Bottle Using Finite Element Method<br>By Kunlapat Thongkaew and Thanwit Naemsai                               |
| 14:20-14:40   | <b>OP174</b><br>Matching Gompertz and Logistic Models to Monod Single Substrate Model<br>By Khunakon Phayunphan, Laddawan Noynoo, Archw Promraksa, Nirattisai Rakmak and Chairat Siripatana |
| 14:40-15:00   | <b>OP178</b><br>Solving Fixed-bed Volumetric Dispersion Model for Extraction with Supercritical CO <sub>2</sub><br>By Archw Promraksa, Nirattisai Rakmak and Chairat Siripatana             |

| Session: Information Technology (Room 209)               |   |
|--|---|
| Session Chair: Assoc. Prof. Dr. Wattanapong Kurdthongmee |   |
| Session III: Prediction, Detection and Deep Learning     |   |
| 13:00-13:15  | <b>OP07</b><br>Glaucoma analysis with Deep Learning<br>By Swathi Anil, Elizabeth Isaa and Surekha Mariam Varghese               |
| 13:15-13:30  | <b>OP133</b><br>Brain Computer Interface for Real-Time Driver Drowsiness Detection<br>By Theerat Saichoo and Poonpong Boonbrahm |
| 13:30-13:45  | <b>OP158</b>  |

|                                 |   |
|---------------------------------|---|
|                                 | <p>The Design of Voice Over IP Monitoring System</p> <p>By Jaroonsak Phuphong and Chanankorn Jandaeng</p>   |
| 13:45-14:00                     | <p><b>OP170</b></p> <p>The Data Preparation for Realtime Intrusion Detection System based on Clustering Technique</p> <p>By Chanankorn Jandaeng</p>   |
| 14:00-14:15                     | <p><b>OP176</b></p> <p>Hybrid Pre-processing Models for Heart Disease Prediction based on Socioeconomic Status and Major Risk Factors: Thai Heart Study</p> <p>By Chalinee Partanapat, Chuleerat Jaruskulchai and Chanankorn Jandaeng</p> |
| <b>Session IV: Applications</b> |   |
| 14:15-14:30                     | <p><b>OP87</b></p> <p>Digitized Scoreboard for Philippines' Conditional Cash Transfer Program: An Assessment on Adoption Readiness</p> <p>By Jennelyn Espinueva</p>   |
| 14:30-14:45                     | <p><b>OP95</b></p> <p>Development of e-LGU Web Portal for San Pablo City</p> <p>By Ma. Concepcion Repalam and Catherine Castillo</p>  |
| 14:45-15:00                     | <p><b>OP131</b></p> <p>Natural Interaction Design for Navigation in Virtual Environment of Sino-Portuguese Architecture in Museum</p> <p>By Kosin Kalarat</p>   |
| 15:00-15:15                     | <p><b>OP142</b></p> <p>Knowledge-Based Ontology Development for Thai Traditional Medicine</p> <p>By Salintip Ratsamano and Supaporn Chairungsee</p>   |
| 15:15-15:30                     | <p><b>OP165</b></p> <p>Developing Online Car Booking System with Lean Management</p> <p>By Manit Jitprapai and Premrudee Noonsang</p>   |



| Theme: Impacts on Health Science (Room 217)  |  |
|--|--|
| Session III: Natural Products  |  |
| <b>Session Chair:</b> Prof. Dr Wei Wang<br>Prof. Dr Chea Sin<br>Assoc. Prof. Dr Christophe Wiart |  |
| 13:00-13:20  | <b>OP91</b><br>Phytochemical and Antimicrobial Activity of Crude Extract From <i>Caesalpinia Sappan</i> and <i>Mansonia Gagei</i> Heartwood<br>By Tharathip Hemthanon and Pakpimol Ungcharoenwiwat   |
| 13:20-13:40  | <b>OP79</b><br>Xanthones from <i>Maclura cochinchinensis</i> Alleviate Inflammation via Targeting Inflammatory Macrophages<br>By Chutima Jansakun, Janejira Hata, Ratchanaporn Chokchaisiri, Rungruedee Kimseng, Poonsit Hiransai, Apichart Suksamrarn, Warangkana Chunglok and Tanyarath Utaipan  |
| 13:40-14:00  | <b>OP78</b><br>Phenolic Contents and Lipid Peroxidation Inhibitory Effects of Selected Medicinal Plants Native to Cambodia<br>By Kosalvorlak Chean, Sokhany Lim, Chanseiha Ny, Sonita Leang, Charinya Khamphukdee, Yaowared Chulikhit, Sin Chea and Samell Keo   |
| 14:00-14:20  | <b>OP05</b><br>Repellent Activity of <i>Zingiber officinalis</i> , Ginger against <i>Sitophilus oryzae</i> L., Rice Weevil, in Stored Milled Rice<br>By Marisol Foronda  |
| 14:20-14:40  | <b>OP84</b><br>Dehydrostephanine Isolated from <i>Stephania venosa</i> Possesses Anti-Inflammatory Activity in Lipopolysaccharide-Activated RAW264.7 Macrophages<br>By Wanatsanan Chulrik, Chutima Jansakun, Waraluck Chaichompoo, Poonsit Hiransai, Wilanee Chunglok, Tanyarath Utaipan, Apichart Suksamrarn, Warangkana Chunglok and Janejira Hata |
| 14:40-15:00  | <b>OP103</b><br>Medicinal Plants - Future Antiparasitic Drug Discovery   |

|             |   |
|-------------|---|
|             | By Tooba Mahboob, Tan Tian Chye, Chandramathi Samudi, Muhammad Nawaz, Christophe Wiat and Veeranoot Nissapatorn                                     |
| 15:00-15:20 | <b>OP172</b><br>Effect of White Champaca on Human Brainwaves: Brain Area Analysis<br>By Phanit Koomhin  |
| 15:20-15:40 | <b>OP183</b><br>Allergic of Yellow Surat Cream in Healthy Volunteers (Clinical trial phase 1)<br>By Sujaree Hirunsirivat and Parunkul Tungsukruthai |