## PROGRAM SCHEDULE

### DAY 1
March 12, 2018 (Monday)
Venue: Graduate School Building UGM

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<tr>
<th>Code</th>
<th>Tittle</th>
<th>Authors and Co-authors</th>
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<tbody>
<tr>
<td>OS03 - 01</td>
<td>A Foot Structure Mimicking Human Walking Behavior for Humanoid Robot</td>
<td>Van Tinh Nguyen (Shibaura Institute of Technology, Japan); Hiroshi Hasegawa (Shibaura Institute of Technology; Graduate School of Engineering and Science, Japan)</td>
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<tr>
<td>OS03 - 02</td>
<td>Robust Gait Recognition for Long and Baggy Clothes Using Kinect Sensor</td>
<td>Abrar Alharbi and Eiji Kamioka (Shibaura Institute of Technology, Japan)</td>
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<td>OS03 - 03</td>
<td>Emotions Detection Scheme Using Facial Heat Distribution and Machine Learning</td>
<td>Mustafa Kahl Jamil Saleem and Eiji Kamioka (Shibaura Institute of Technology, Japan)</td>
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<td>OS13 - 01</td>
<td>Quadrotor Proportional-Derivative Control on SO(3) with Input Saturation</td>
<td>Samiadjy Herdjunanto, Gilang Nugraha Putu Pratama, Andreas P. Sandiwan and Adha Imam Cahyadi (Universitas Gadjah Mada, Indonesia)</td>
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<td>OS13 - 03</td>
<td>Upper Limb Elbow Joint Angle Estimation Based on Electromyography Using Artificial Neural Network</td>
<td>Triwiyanto Triwiyanto (Universitas Gadjah Mada; Politeknik Kesehatan Surabaya, Kementerian Kesehatan RI, Indonesia)</td>
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<td>Session</td>
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<tbody>
<tr>
<td>OS11 - 01</td>
<td>Neuroprotective Effects of Tocotrienols</td>
<td>Koji Fukui (Shibaura University, Japan)</td>
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<tr>
<td>OS11 - 02</td>
<td>Possible Mechanisms of Postprandial Physiological Alterations Following Flavan 3-Ol Ingestion</td>
<td>Naomi Osakabe (Shibaura Institute of Technology, Japan)</td>
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<td>OS11 - 03</td>
<td>Antioxidant Potential of Para Grass Extract for Cosmeceutical Product Development</td>
<td>Siriporn Thongmee (King Mongkut’s University of Technology Thonburi, Thailand)</td>
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<td>OS11 - 04</td>
<td>The Effect of Tocotrienols on Long-Term High-Fat Diet-Treated Mice</td>
<td>Yugo Kato and Koji Fukui (University of Shibaura Institute of Technology, Japan)</td>
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<td>OS11 - 05</td>
<td>Antihypertensive Activity from Mungbean Meal Protein Hydrolysate</td>
<td>Chanikan Sonklin (King Mongkut’s University of Technology Thonburi; School of Biotechnology, Thailand)</td>
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**Time:** 1:00 - 3:15 PM  
**Session:** SSB1-1 (Special Session B1-1)

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<tr>
<td>OS11 - 06</td>
<td>Application of Micro-Plasma in Accelerating Wound Healing on Mice with Burn Wound</td>
<td>Minh Vo (Ho Chi Minh University of Technology, Vietnam)</td>
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<td>Os11 - 07</td>
<td>Shogaol Extraction and Potent Bioactivities</td>
<td>Dung Nguyen (HCM University of Technology, Vietnam)</td>
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<td>OS11 - 08</td>
<td>Anti-oxidant and Anti-Aging Potential of Hom Dang Colored Rice Bran Extract</td>
<td>Pitchapat Sunthonkun (King Mongkut's University of Technology Thonburi, Bangkuntien); King Mongkut's University of Technology Thonburi, Thailand; Nitispa Soontorngun (King Mongkut's University of Technology Thonburi, Thailand)</td>
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### VENUE: CLASSROOM 406
**Time:** 1:00 - 3:15 PM  
**Session:** SSB2-1 (Special Session B2-1)

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<tr>
<td>OS11 - 17</td>
<td>Research on Life Support Engineering</td>
<td>Akihiko Hanafusa (Shibaura University, Japan)</td>
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<td>OS11 - 18</td>
<td>Our Basic Studies on Functional Evaluation of Erythrocytes and Platelets</td>
<td>Nobuo Watanabe (Shibaura Institute of Technology, Japan)</td>
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<td>OS11 - 19</td>
<td>Conceptual Design of Sinusoidal Shear Flow Generator for Monitoring of Individual Red Blood Cell</td>
<td>Kriengsak Masnok and Nobuo Watanabe (Shibaura Institute of Technology, Japan)</td>
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<td>OS11 - 20</td>
<td>Palm Oil Wax Ester Emulsion Used as Seed and Fruit Coating</td>
<td>Roongaroon Pingrajay (King Mongkut's University of Technology Thonburi, Thailand); Kornkanok Aryusuk (King Mongkut's University of Technology Thonburi, Thailand)</td>
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<td>OS11 - 21</td>
<td>Effect of pH and Temperature on Swelling Behavior of Polyelectrolyte Complex Gelatin-chitosan Multilayer Thin Films</td>
<td>Sorvoleakhena Eng (Universitas Gadjah Mada, Indonesia); Budhijanto Budhijanto (Gadjah Mada University, Indonesia); Yuni Kusumastuti (Universitas Gadjah Mada, Indonesia)</td>
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<td>OS11 - 22</td>
<td>Effect of Silica Nanoparticle Addition on Characteristics of Chitosan Film</td>
<td>Nadya Alfa Cahaya Imani, Yuni Kusumastuti and Himawan Tri Bayu Murti Petrus (Universitas Gadjah Mada, Indonesia)</td>
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<td>OS11 - 23</td>
<td>Development of the Rotational Shear Flow Device to Verify the Shear Stress Change as the Additional Hemolysis Factor</td>
<td>Kosuke Igarashi, Reina Ioka and Nobuo Watanabe (Shibaura Institute of Technology, Japan)</td>
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<td>OS11 - 24</td>
<td>Surface Modification on Coronary Stent Improving Biocompatibility</td>
<td>Rahmat Sriwijaya (Universitas Gadjah Mada, Indonesia)</td>
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**Time:** 1:00 - 3:15 PM  
**Session:** SBI-1 (Sustainable Building and Infrastructure-1)

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<tr>
<td>OS02 - 01</td>
<td>A Study on Tensile Strength Characteristics of Traditional Wooden Joints Koshikake-kama-tsugi</td>
<td>Hiroyuki Kijima, Kenji Kabayama and Fumitoshi Kumazawa (Shibaura Institute of Technology, Japan)</td>
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<td>OS02 - 02</td>
<td>Development and Application of Antiseismic Technology for the Rack of an Automated Storage and Retrieval System</td>
<td>Hidetaka Funaki, Fumitoshi Kumazawa and Kenji abayama (Shibaura Institute of Technology, Japan)</td>
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<td>OS02 - 03</td>
<td>Effect for Concrete Properties on Blending Rate of Ground Granulated Blast Furnace Slag</td>
<td>Takeshi Iyoda (Shibaura Institute of Technology, Japan)</td>
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<td>OS02 - 04</td>
<td>Influence of Aggregate Interface in Concrete on Permeability</td>
<td>Koki Tagomori and Takeshi Iyoda (Shibaura Institute of Technology, Japan)</td>
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<td>OS02 - 05</td>
<td>Influence on Replacement of Recycled Aggregate for Strength and Durability of Concrete</td>
<td>Hiroki Mizuno (Shibaura Institute of Technology, Japan); Nobuhiro Matsuda (TOKYO TECHNO CO., LTD, Japan); Takeshi Iyoda (Shibaura Institute of Technology, Japan)</td>
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<td>OS02 - 06</td>
<td>Flexible Housing: Architectural Investment for Future House</td>
<td>Hendra Frisky and Diananta Pramitasari (Universitas Gadjah Mada, Indonesia)</td>
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**Time:** 1:00 - 3:15 PM  
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<tr>
<td>OS09 - 03</td>
<td>Investigation on Different Approaches for Formaldehyde Abatement from Indoor Air</td>
<td>Nguyen Thi Thuy (HCMC University of Food Industry, Vietnam); Huynh Thi Van Thao and Nguyen Ngoc (None, Vietnam); Nguyen Nhat Huy (Ho Chi Minh City University of Technology, VNU-HCM, Vietnam)</td>
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<td>OS13 - 06</td>
<td>Performance Evaluation of A Battery Cooling System for Electric Vehicles in Short-circuiting Battery Cells</td>
<td>Hirotaka Hata, Naoki Ono, Takashi Yamada and Kazuki Okawa (Shibaura Institute of Technology, Japan)</td>
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<td>OS13 - 07</td>
<td>Plastic Straining for Microstructure Refinement in Stainless Steels by Low Temperature Plasma Nitriding</td>
<td>Tatsuhiko Aizawa (Shibaura Institute of Technology, Japan)</td>
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<td>OS13 - 08</td>
<td>Viability of Hydro-kinetic Turbine as an Alternative for Renewable Energy Harvesting in Nigeria</td>
<td>Ibrahim Masud (Shibaura Institute of Technology; TIEC, Japan)</td>
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<td>OS13 - 09</td>
<td>Improved Performance and Superconducting Properties of MgB2-Diamond Nanocomposites</td>
<td>Longji Dadiel Joseph (Shibaura Institute of Technology, Japan)</td>
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<td>OS13 - 10</td>
<td>EEG Cognition Detection to Support Aptitude-Treatment Interaction in E-Learning Platforms</td>
<td>Othmar Mwambe and Eiji Kamioka (Shibaura Institute of Technology, Japan)</td>
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<td>Viet Duc Nguyen (Faculty of Chemical Engineering, HCMUT, Vietnam); Hieu Nguyen (HCMUT-VNUHCM, Vietnam); Tu Tran (Ho Chi Minh University of Technology HCMUT, Vietnam)</td>
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<td>OS13 - 12</td>
<td>Renewable Energy Production from Solid Waste Using Hydrothermal Treatment with Natural Zeolite Addition</td>
<td>Lalak Maleiva, Chandra Purnomo and Sarto Sarto (Universitas Gadjah Mada, Indonesia)</td>
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<td>Dye-Sensitized Solar Cell Based on Anthocyanin Natural Dye</td>
<td>Eka Maulana, Masruroh Masruroh and Sholeh Pramono (Brawijaya University, Indonesia)</td>
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<td>OS06 - 01</td>
<td>Mobile Robot Localization with Global Ray-Casting Registration Algorithm</td>
<td>Linh Tao (Hanoi University of Science and Technology; School of Mechanical Engineering, Vietnam); Ito Toshio (Shibaura Institute of Technology, Japan)</td>
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<td>OS06 - 02</td>
<td>Development of Automated Driving Set Box</td>
<td>Yuichiro Nakayama (Shibaura Institute of Technology; Advanced Driver Assistance Systems Laboratory, Japan); Ito Toshio (Shibaura Institute of Technology, Japan)</td>
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<td>OS06 - 03</td>
<td>Development of High Accuracy Digital Map</td>
<td>Afifah Agoes (Shibaura Institute of Technology, Japan)</td>
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<td>OS06 - 04</td>
<td>Study on Effective Tasks for Keeping Driver's Arousal Level High in Automated Driving</td>
<td>Akihiro Abe and Ito Toshio (Shibaura Institute of Technology, Japan)</td>
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<td>OS03 - 04</td>
<td>Object Detection Method for Electric Senior Vehicle by Computer Vision with Artificial Neural Networks</td>
<td>Jittima Varagul (Shibaura Institute of Technology; Shibaura Institute of Technology, Japan); Ito Toshio (Shibaura Institute of Technology, Japan)</td>
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<td>Development of a Prototype Collaborative System with Mobility and Robot Network Service</td>
<td>Satoshi Okano (Shibaura Institute of Technology, Japan)</td>
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<td>OS13 - 05</td>
<td>Simulation of a Human Following Robot with Object Avoidance Function</td>
<td>Nattawat Pinrath (Shibaura Institute of Technology, Japan)</td>
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**Time:** 3:00 - 5:30 PM  
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<tr>
<td>OS11 - 09</td>
<td>Methane Production Potential of Oil Palm Mesocarp Fiber Using Various Seed Inoculums and Pretreatments</td>
<td>Eko Heryadi (King Mongkut's University of Technology Thonburi; Mulawarman University, Indonesia)</td>
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<td>OS11 - 10</td>
<td>Actin Polymerization as a Target of 19-20-Epoxycytchalasin Q Isolated from Xylaria Sp. BCC 1067</td>
<td>Nitnipa Soontorngun (King Mongkut's University of Technology Thonburi, Thailand)</td>
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<td>OS11 - 11</td>
<td>Resistant Starch of Tacca Leontopetaloides (L.) Kuntze by Various Treatment Methods</td>
<td>Quan Vu (Ho Chi Minh City University of Technology, VNU-HCM, Vietnam); Phung Le (Ho Chi Minh City University of Technology, VNU-HCM); Binh Ho (An Giang University, Vietnam); Qanh Tran, Thao Le, Phuong Nguyen, Trang Luong and Huy Vo (Ho Chi Minh City University of Technology, VNU-HCM, Vietnam)</td>
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<td>OS11 - 12</td>
<td>Fermentabilities of Rice Noodles with Fiber-Rich Fractions Derived from Cassava Pulp and Pomelo Peel</td>
<td>Yuree Wandee and Dudsadee Utpatap (King Mongkut's University of Technology Thonburi, Thailand)</td>
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<td>OS11 - 13</td>
<td>Constituents and in Vitro Biological Activities of Vitex Negundo Essential Oils</td>
<td>Minh-Tam K Nguyen (HCM University of Technology, Vietnam)</td>
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<td>Antibacterial Activity of Colubrina Asiatica Leaves Extract Against Escherichia Coli and Bacillus Subtilis</td>
<td>Nurul Nadrah (Universiti Teknologi Malaysia; Faculty of Chemical and Energy Engineering, Malaysia); Erricar Salleh (Universiti Teknologi Malaysia, Malaysia)</td>
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<td>Subcritical Fluid Extraction of Paradol and Zingiberene from Zingiber Officinale Fresh Rhizome</td>
<td>Vita Paramita and Mohamad Yulianto (Diponegoro University, Indonesia); Indah Hartati (Wahid Hasyim University, Indonesia); Udin Bahrudin and Dwi Handayani (Diponegoro University, Indonesia)</td>
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<td>OS11 - 16</td>
<td>Multi-Drug Resistance and Antifungal Potential of Fungal Xylaria Sp. BCC 1067 Extract</td>
<td>Kwanrutil Watchaputi and Nitnipa Soontorngun (King Mongkut's University of Technology Thonburi, Thailand)</td>
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<tr>
<td>OS11 - 25</td>
<td>Optimization of Enzymatic Hydrolysis for Producing Brown Rice Protein Hydrolysate with Antioxidant and Functional Properties</td>
<td>Orrapun Selamassakul and Natta Laohakunjit (King Mongkut's University of Technology Thonburi, Thailand); Orapin Kerdchoechuen and Khanok Ratanakhanokchai (King Mongkut's University of Technology Thonburi, Thailand); Surapong Pinitglang (University of the Thai Chamber of Commerce, Thailand)</td>
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<td>OS11 - 26</td>
<td>Synergistic Effect of NaOH and Ethanol on the Enrichment of Γ-Oryzanol from Acid Oi</td>
<td>Piraporn Sombutsuwans (KMUTT, Thailand); Kornkanok Aryusuk (King Mongkut's University of Technology Thonburi, Thailand)</td>
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<td>OS11 - 27</td>
<td>Application of Heat - Moisture Treated Canna Starch to Cream Soup Product</td>
<td>Aubolwan Rangsin and Dudsadee Uttapap (King Mongkut's University of Technology Thonburi, Thailand)</td>
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<td>OS11 - 28</td>
<td>High Fluoride Release and Relation To Mechanical Resistance of A Glass Ionomer Cement In Distilled Water And Artificial Saliva</td>
<td>Minh Huynh, Huynh Nguyen and Minh Do (Ho Chi Minh City University of Technology, Vietnam)</td>
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<td>OS11 - 29</td>
<td>Study on Two Different Type of Extracting Method in Catnip (Nepeta Cataria L.) Essential Oil</td>
<td>Nur Zularifin (Universiti Teknologi Malaysia, Malaysia)</td>
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<td>OS11 - 30</td>
<td>Capillary Column Coated with Silver Nitrate-Polyethylene Glycol for Gas Chromatographic Separation of Fatty Acids</td>
<td>Siriluck Pojjanapornpnn (King Mongkut's University of Technology Thonburi, Thailand); Kornkanok Aryusuk and Kanit Krisnangkura (King Mongkut's University of Technology Thonburi, Thailand)</td>
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<td>OS11 - 31</td>
<td>Phytochemical Screening from Parts of Tacca Leontopetalodes (L.) Kuntze Collected from an Giang, Vietnam</td>
<td>Huy Vo (Ho Chi Minh City University of Technology, VNU-HCM, Vietnam); Phung Le (Hochiminh City University of Technology, Vietnam); Quan Vu (Ho Chi Minh City University of Technology, VNU-HCM, Vietnam); Minh-Tam K Nguyen (HCM University of Technology, Vietnam); Huyen Nguyen Thi (Ho Chi Minh City University of Technology, Vietnam)</td>
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<td>OS11 - 32</td>
<td>Characterization of Layer-By-Layer Assembled Chitosan for Drug Delivery System</td>
<td>Nget Sovannmony and Yuni Kusumastuti (Universitas Gadjah Mada, Indonesia); B Budhijanto (Gadjah Mada University, Indonesia)</td>
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**VENUE**: CLASSROOM 406

**Time**: 3:00 - 5:30 PM

**Session**: SSB2-2 (Special Session B2-2)

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**VENUE**: CLASSROOM 407

**Time**: 3:00 - 5:30 PM

**Session**: SBI-2 (Sustainable Building and Infrastructure-2)

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<td>OS02 - 07</td>
<td>Maximising Natural Ventilation in Terraced Housing A Case Study in Sustainable Design for Affordable Housing</td>
<td>Norazam Othman (Senior Lecturer, Malaysia)</td>
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<td>OS02 - 08</td>
<td>Innovative Change Management Tool for Time Overrun Reduction in Building Projects</td>
<td>Sarajul Fikri Mohamed and Arowosegbe Ajayi (Universiti Teknologi Malaysia, Malaysia); Mohd Saidin Misnan (Universiti Teknologi Malaysia; Faculty of Built Environment, Malaysia); Norazam Othman (Senior Lecturer, Malaysia); Zakaria Mohd Yusof (Assoc Prof, Malaysia); Zuhaili Bin Mohamad Ramly (Universiti Teknologi Malaysia, Malaysia)</td>
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<td>OS02 - 09</td>
<td>Reaction of Silica with Fly Ash and Alkaline Liquid on Geopolymer Concrete</td>
<td>Tuan Le (Vietnam National University-HochiMinh city, Vietnam)</td>
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<td>OS02 - 10</td>
<td>L-Shaped Mini Louvers Performance of Solar Radiation Reduction in Glass Windows</td>
<td>Alexander Suryandono (The University of Kitakyushu; Universitas Gadjah Mada, Japan)</td>
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<td>OS02 - 11</td>
<td>Performance of Recycled Concrete Aggregates as Road Base Material Enhanced by Polymer Waste Layer</td>
<td>Grawira Giwangkara, Azman Mohamed, Hasanan Md. Nor and Hafizah Abd Khalid (Universiti Teknologi Malaysia, Malaysia)</td>
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<td>OS02 - 12</td>
<td>A Review on the Relationship Between Building Adaptation Research Methods and Building Typology</td>
<td>Salim Bashir Umar and Ismail Said (Universiti Teknologi Malaysia, Malaysia)</td>
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<td>OS04 - 04</td>
<td>Yogyakarta Region's Temporal Variation of Earth Gravity Field from Goce Satellite Gravity Data.</td>
<td>Leni S. Heliani, Dwi Lestari, Kholbi Azam (Universitas Gadjah Mada)</td>
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<td>OS13 - 14</td>
<td>Micro-Texturing into the Graphite Part for Joining and Packaging</td>
<td>Ridha Ikhsani (Brawijaya University, Indonesia); Tatsuhiko Aizawa (Shibaura Institute of Technology, Japan); Dionysius J D H Santijojo (University of Brawijaya, Indonesia); Ersyzario Yunata (Shibaura Institute of Technology, Japan); Setyawan Sakti (Brawijaya University, Indonesia)</td>
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<td>OS13 - 15</td>
<td>Low Temperature Plasma Nitriding of Pure Titanium for Hardening</td>
<td>Maharani Rajapadni (University of Brawijaya, Indonesia); Tatsuhiko Aizawa (Shibaura Institute of Technology, Japan); Dionysius J D H Santijojo (University of Brawijaya, Indonesia); Setyawan Sakti and Masruroh Masruroh (Brawijaya University, Indonesia)</td>
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<tr>
<td>OS13 - 16</td>
<td>The Effect of Chitosan Concentration and Coating Process Temperature on the Characteristic of Coated NPK as Controlled Release Fertilizer</td>
<td>Alit Istiani, Yuni Kusumastuti and Rochmadi Rochmadi (Universitas Gadjah Mada, Indonesia)</td>
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<tr>
<td>OS13 - 17</td>
<td>Preliminary Investigation on Manufacture of Nickel Collimator by Electrical Arc Furnace and Centrifugal Casting Process</td>
<td>Mujiyono Mujiyono (Yogyakarta State University, Indonesia); Fajar Nuirjaman (Indonesian Institute of Sciences, Indonesia); Alaya Mukhammad (Diponegoro University, Indonesia); Didik Nurhadiyanto and Arianato Soemowidagdo (Yogyakarta State University, Indonesia)</td>
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<td>OS13 - 18</td>
<td>Numerical Study on a Drying Process of Liquid Thin Film by Airflow</td>
<td>Cheikh Tidiane Gueye, Daisuke Suzuki, Serina Ooura, Takuya Nemoto and Naoki Ono (Shibaura Institute of Technology, Japan)</td>
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<tr>
<td>OS13 - 19</td>
<td>Micro-Texturing into DLC Coating on the SKD11 Die via the High-Density Plasma Oxidation</td>
<td>Sukma Fitriani (University of Brawijaya, Indonesia); Tatsuhiko Aizawa (Shibaura Institute of Technology, Japan); Dionysius J D H Santjojo (University of Brawijaya, Indonesia); Masruroh Masruroh and Setyawan Sakti (Brawijaya University, Indonesia)</td>
</tr>
<tr>
<td>OS13 - 21</td>
<td>Stability of Flexible Wheelchair</td>
<td>Rahmat Sriwijaya (Universitas Gadjah Mada, Indonesia)</td>
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### DAY 2
March 13, 2018 (Tuesday)
Venue: Graduate School Building UGM

#### VENUE: MEETING ROOM C

**Time**: 8:30-10:15 AM  
**Session**: GAM (Green Advanced Material)

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<tr>
<td>OS07 - 01</td>
<td>Synthesis of Graphene Aerogel for Removal of Cadmium Ions from Water</td>
<td>Thi Truong (Key Laboratory of Chemical Engineering and Petroleum Processing, HCMUT-VNUHCM, Vietnam); Hieu Nguyen (HCMUT-VNUHCM, Vietnam); Tu Tran (Ho Chi Minh University of Technology HCMUT, Vietnam)</td>
</tr>
<tr>
<td>OS07 - 02</td>
<td>Synthesis of Graphene Aerogels Using Vitamin C as an Eco-Friendly Reductant for Oil Absorption</td>
<td>Tu Tran (Ho Chi Minh University of Technology HCMUT, Vietnam); Hieu Nguyen (HCMUT-VNUHCM, Vietnam)</td>
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<td>OS07 - 03</td>
<td>Development of Titania Based Nanofiltration Membranes</td>
<td>Shuluh Ashmarisya, Toshichika Takeuchi, Ayumi Ikeda and Mikihiro Nomura (Shibaura Institute of Technology, Japan)</td>
</tr>
<tr>
<td>OS07 - 04</td>
<td>Hollow Formation of Production Carbon Fiber from Biomass Derived Extract</td>
<td>R. Fugtuan (King Mongkut's University of Technology Thonburi, Thailand)</td>
</tr>
<tr>
<td>OS07 - 05</td>
<td>Lateral Load Bearing Capacity of Hybrid Sugar Palm/Glass Fiber-Reinforced Polyester Composites Subjected to a Three-Point Bend Loading</td>
<td>Sudarismas Sudarismas, None, Sandhi Isdiyanto and Muhammad Rahman (Universitas Muhammadiyah Yogyakarta, Indonesia)</td>
</tr>
<tr>
<td>OS07 - 06</td>
<td>Biodegradable Foam from Cassava Starch and Commercial Fiber by Twin Screw Extruder</td>
<td>Nattapon Kaisangsri (King Mongkut's University of Technology Thonburi (KMUTT), Thailand)</td>
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<tr>
<td>OS07 - 07</td>
<td>Plasma Diagnosis on the Mixture Gas Plasma State for Nitriding Process</td>
<td>Imron Rosadi and Setyawan Sakti (Brawijaya University, Indonesia); Dionysius J D H Santjojo (University of Brawijaya, Indonesia); Tatsuhiko Aizawa and Ersyazario Yunata (Shibaura Institute of Technology, Japan)</td>
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#### VENUE: CLASS ROOM 407

**Time**: 8:30-10:15 AM  
**Session**: ESG-1 (Earth Science and Geomatics-1)

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<th>Code</th>
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<tr>
<td>OS05 - 01</td>
<td>Biostratigraphy and Paleocology: History of Sambipitu Formation Early-Late Miocene Implicated by Foraminifera Fossil</td>
<td>Harman Dwi Rachmadhan (Universitas Gadjah Mada, Indonesia); Mohammad Rahmat Ramdhani, Adnan Widodo, Ryan Avirs and Abraham Ivan P. (Universitas Pembangunan Nasional, Indonesia)</td>
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<tr>
<td>OS05 - 02</td>
<td>Petrography and Provenance of Yaw Formation in the Tamu Area, Sagaing Region, Myanmar</td>
<td>Thawng Lian Mung, Sugeng Sapto Surjono and Salahuddin Husein (Universitas Gadjah Mada, Indonesia); Hendra Amijaya (Gadjah Mada University, Indonesia)</td>
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</table>
### VENUE: CLASS ROOM 407
**Time:** 8:30-10:15 AM  
**Session:** ESG-1 (Earth Science and Geomatics-1)

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<th>Code</th>
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<tr>
<td>OS05 - 03</td>
<td>Integrated Analysis of Deepwater Deposits in Central and East Java Basin: Comparing Deepwater Rocks Characteristics for Potential Hydrocarbon Reservoir</td>
<td>Reynara Chen (UPN Veteran Yogyakarta, Indonesia)</td>
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<td>OS05 - 04</td>
<td>Heating of Fractures in Rock Salt and Potash Under High Confining Pressures</td>
<td>Korakot Konsaard (Suranaree University of Technology, Thailand)</td>
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<tr>
<td>OS05 - 05</td>
<td>Physical Model Simulations of Super-Critical Subsidence Above Salt Bed Due to Brine Pumping Process</td>
<td>Thaniththa Thongprapha, Kittitep Fuenkajorn and Supattra Khamrat (Suranaree University of Technology, Thailand)</td>
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<tr>
<td>OS05 - 06</td>
<td>Effect of Earthquake Vibration on Shear Strength of Sandstone Fractures</td>
<td>Khanapot Boonyord (Suranaree University of Technology, Thailand)</td>
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<tr>
<td>OS05 - 07</td>
<td>Effects of Cyclic Loading on Frictional Behavior of Fractures in Sandstone</td>
<td>Narudon Patitung (Suranaree University of Technology, Thailand)</td>
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<tr>
<td>OS05 - 09</td>
<td>Permeability of Phu Phan and Sao Khua Sandstones Under High Confinements</td>
<td>Sawarin Champanoi (Suranaree University of Technology, Thailand)</td>
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### VENUE: CLASS ROOM 306
**Time:** 8:30-10:15 AM  
**Session:** IEEE-3

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<td>OS13 - 22</td>
<td>A New Algorithm Assessing the Transient Stability for Ranking the Power Network Areas in Large Power System</td>
<td>Vquang Luu (HCMUT, Vietnam)</td>
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<td>OS13 - 23</td>
<td>From THIO to THIOCMP: The Development of Technology Assessment Concept Using Technometrics</td>
<td>Novi Marliyana (Universitas Gadjah Mada; Universitas Islam Sultan Agung, Indonesia)</td>
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<td>OS13 - 24</td>
<td>Short-ranged Maximum Power Point Tracking Algorithm for Series Connected Photovoltaics in Partial Shading Situation</td>
<td>Jirada Gosumbonggot, Duy-Dinh Nguyen and Goro Fujita (Shibaura Institute of Technology, Japan)</td>
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<td>OS13 - 25</td>
<td>Early Rice Disease Detection and Position Mapping System Using Drone and IoT Architecture</td>
<td>Nuttakarn Kitpo and Masahiro Inoue (Shibaura Institute of Technology, Japan)</td>
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<td>OS13 - 26</td>
<td>Failure-Atomic Synchronization of Memory Mapped Data in Non-volatile Memory Based System</td>
<td>Koki Haga and Kenichi Yamazaki (Shibaura Institute of Technology, Japan)</td>
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<td>OS13 - 27</td>
<td>Software Defect Prediction Using Random Forest</td>
<td>Yan Naung Soe and Paulus Insap Santosa (Universitas Gadjah Mada, Indonesia); Rudy Hartanto (Gadjah Mada University; Electrical Engineering and Information Technology Department, Faculty of Engineering Gadjah Mada University, Indonesia)</td>
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### MEETING ROOM C

**Time**: 10:30-12:00 AM  
**Session**: SUR-1 (Sustainable Urban and Regional Planning & Development - 1)

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<tbody>
<tr>
<td>OS10 - 01</td>
<td>Traditional Ecological Knowledge and Climate Change: An Introduction</td>
<td>Nadzirah Hosen and Hitoshi Nakamura (Shibaura Institute of Technology, Japan)</td>
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<td>OS10 - 02</td>
<td>Study on Management of a Community Design House by Collaboration Between University and Local Residents</td>
<td>Chenporn Lapcharoen (Shibaura Institute of Technology, Japan)</td>
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<td>OS10 - 03</td>
<td>Preliminary Study of Effects of Physical Neighborhood Environment Design on Social Connectedness Among Aging Residents</td>
<td>Nadhirah binti Nordin and Hitoshi Nakamura (Shibaura Institute of Technology, Japan)</td>
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<tr>
<td>OS10 - 04</td>
<td>Station Area Population and Employment Estimation Based on Building Floor Space: An Analysis of Toyosu, Tokyo</td>
<td>Bor Tsong Teh and Michihiko Shinozaki (Shibaura Institute of Technology, Japan); Chin Siong Ho and Loon Wai Chau (Universiti Teknologi Malaysia, Malaysia)</td>
</tr>
<tr>
<td>OS10 - 05</td>
<td>Streetscape Analysis Using Virtual Reality in Braga Street in Bandung Indonesia</td>
<td>Shinryo Kurata and Michihiko Shinozaki (Shibaura Institute of Technology, Japan)</td>
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<td>OS10 - 06</td>
<td>Importance of Urban Forest Development in Malaysia on Real Estate: A Review</td>
<td>Nurul Saadah, Noorsidi Aizuddin Mat Noor, Nurul Hana Adi Maimun, Dzurlikan Zulkarnain Daud, Wan Ibrisam Fikry Wan Ismail, Mohd Shahril Abdul Rahman, Nurul Syakima Mohd Yusoff, Shazmin Shareena Ab Azis and Hariat Abdullah Hashim (Universiti Teknologi Malaysia, Malaysia)</td>
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**Time**: 10:30-12:00 AM  
**Session**: ESG-2 (Earth Science and Geomatics-2)

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<tbody>
<tr>
<td>OS05 - 10</td>
<td>Consolidation of Crushed Salt Mixed with Saturated MgCl2 Brine</td>
<td>Worawat Suwannabut (Suranaree University of Technology, Thailand)</td>
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<td>OS05 - 11</td>
<td>Strengths of Rock Mass Models Under Confinements</td>
<td>Kiattisak Sripun (Suranaree University of Technology, Thailand)</td>
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<td>OS05 - 12</td>
<td>Shear Strengths of Fractures in Saturated Sandstone</td>
<td>Pittawat Liapkrathok (Suranaree University of Technology, Thailand)</td>
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<td>OS05 - 13</td>
<td>Effects of Cyclic Loading on Tensile Strength of Rock Salt</td>
<td>Thanapon Kaewpuang (Suranaree University of Technology, Thailand)</td>
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<td>OS05 - 14</td>
<td>The Detection of Concrete Bridge Structure Movement Using Global Positioning System Static Technique - Overview on Traffic Flow</td>
<td>Masreta Mohd@Basri (University Technology of Malaysia, Malaysia)</td>
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</table>
| OS05 - 15 | Mechanical Properties of Compacted Bentonite-Aggregate Mixtures as Backfill in Salt and Potash Mine Openings | Laksikar Sitthimongkol (Suranaree University of Technology, Thailand) }
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**Time**: 10:30-12:00 AM  
**Session**: IEEE-4

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<tbody>
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<td>Droop Control Implementation in Solid State Transformer</td>
<td>Muhammad Syahir Bin Turiman (Shibaura Institute of Technology, Tokyo, Japan)</td>
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<td>OS13 - 29</td>
<td>Design and Prototyping of Spherical Robot</td>
<td>Siwasilp Pornjumsilp (Suananaree University of Technology, Thailand)</td>
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<td>OS13 - 30</td>
<td>The Investigation of Underwater Positioning System Using the MEMS Inertial Sensor</td>
<td>Yoshikazu Koike (Shibaura Institute of Technology; Faculty of Engineering, Japan)</td>
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<td>OS13 - 31</td>
<td>Experimental Study of Effect of Muffled Air Duct Shape to Attenuate Noise on Automotive Cooling Fan</td>
<td>Rahmat Sriwijaya (Universitas Gadjah Mada, Indonesia)</td>
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<td>OS13 - 32</td>
<td>Gradient Search Technique with Adjusting the Energy Values of Water Consumption for Optimizing the Power Generation in Hydro-Thermal Power System</td>
<td>Vquang Luu (HCMUT, Vietnam)</td>
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<td>OS13 - 33</td>
<td>IoT Monitoring System for Early Detection of Agricultural Pests and Diseases</td>
<td>Materne Ntihemuka (Shibaura Institute of Technology, Japan)</td>
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### VENUE: MEETING ROOM A

**Time**: 1:00 - 3:15 PM  
**Session**: ICT-1 (Information Technology, Smart System and Automation-1)

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<tr>
<td>OS03 - 05</td>
<td>Outdoor Predator Animal Feature Detection</td>
<td>Fahad Alharbi and Eiji Kamioka (Shibaura Institute of Technology, Japan)</td>
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<tr>
<td>OS03 - 06</td>
<td>A Pre-NIRS Study of White, Blue, and Green Background Colour Effects on Working Memory</td>
<td>Muhammad Nur Adilin Bin Mohd Anuardi and Atsuko K. Yamazaki (Shibaura Institute of Technology, Japan)</td>
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<td>OS03 - 07</td>
<td>Fabrication of Mechanically Induced Long-Period Fiber Grating by Using 3D Printer</td>
<td>Masahiro Takagi (Shibaura Institute of Technology, Japan)</td>
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<td>OS03 - 08</td>
<td>Brain ACTIVITY Monitoring System Using Biological Sensor Based on Internet of Thing (Iot) Approach</td>
<td>Kant Sunthad and Yoshihiro Niitsu (Shibaura Institute of Technology, Japan)</td>
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<tr>
<td>OS03 - 09</td>
<td>Spatial Relation Between Given Stimulus and Perceived Phosphene</td>
<td>Manami Kanamaru ((1) Graduate School of Engineering and Science/Shibaura Institute of Technology, Japan); Eiji Kamioka (Shibaura Institute of Technology, Japan)</td>
</tr>
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<td>OS03 - 10</td>
<td>Discrimination Method of Improper Transfer Data Between Sensors and a Gateway in IoT Networks Considering Data Integrity</td>
<td>Kouta Tezuka and Yoshihiro Niitsu (Shibaura Institute of Technology, Japan)</td>
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</table>
### Potential Opportunities and Future Directions of Big Data in the Construction Industry

Zafira Nadia Maaz and Shamsulhadi Bandi (Universiti Teknologi Malaysia, Malaysia); Roslan Amirudin (University Teknologi Malaysia, Malaysia)

### Toward a Smart Environment Monitoring System a Data-Centric Routing Based Approach in Ad-Hoc Wireless Sensor Networks

Lamine Salhi (Shibaura Institute of Technology, Japan)

### System Dynamic Simulation of Salacca-pondoh’s Business as Usual Condition in Sleman District, Yogyakarta Province, Indonesia

Mohammad Bimantio, Alva Tontowi and Anna Maria Asih (Gadjah Mada University, Indonesia)

### Identification of Algae Types Causing Algae Blooms in Waste Water Treatment Plant (WWTP) ITDC Bali

Devi Pratiwi, Intan Supraba and Arief Budiman (Universitas Gadjah Mada, Indonesia)

### Kuwaru Coastal Line Changing Under Wave Attack

Thy Doan (Faculty of Engineering Universitas Gadjah Mada; Universitas Gadjah Mada Indonesia, Indonesia)

### Waste Management Practice at Construction Site

Mohd Saidin Misnan (Universiti Teknologi Malaysia &amp; Faculty of Built Environment, Malaysia); Sarajul Fikri Mohamed (Senior Lecturer, Malaysia); Zuhaili Bin Mohamad Ramly (Universiti Teknologi Malaysia, Malaysia); Norazam Othman (Senior Lecturer, Malaysia); Zakaria Mohd Yusof (Assoc Prof, Malaysia)

### The Effect of Green Rooftop to Reduce Runoff (a Case Study at Selected Buildings in Surakarta City)

Purwanti Pudyastuti (Universitas Muhammadiyah Surakarta, Indonesia)

### Cation Modification of Zeolite as Microbial Immobilization Media in Anaerobic Digestion Process of Palm Oil Mill Effluent (POME)

Firda Mahira Alfiata Chusna (Gadjah Mada University, Indonesia); Melly Mellyanawaty (Universitas Muhammadiyah Tasikmalaya, Indonesia); Rochim Bakti Cahyono and Wiratni Budijanto (Universitas Gadjah Mada, Indonesia)

### Temperature Influence for Solvent Extraction Treatment Process of Contaminated Soil from Kalimantan

Edwan Kardena (Institut Teknologi Bandung, Indonesia)
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<td>OS01 - 01</td>
<td>Simulation of Solar Powered Absorption Cooling System for Buildings in Senegal</td>
<td>Thiomby Tine (Shibaura Institute of Technology Tokyo, Japan)</td>
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<td>OS01 - 02</td>
<td>The Acetic Acid Stress Response in Yeast Saccharomyces Cerevisiae During Alcoholic Fermentation</td>
<td>Pattan Songdech (King Mongkut's University of Technology Thonburi, Thailand)</td>
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<td>OS01 - 03</td>
<td>Challenge in Ethanol Stress Through Regulation of Glycogen Biosynthesis in the Yeast Saccharomyces Cerevisiae</td>
<td>Wiwan Samakkarn (King Mongkut's University of Technology Thonburi, Thailand)</td>
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<td>OS01 - 04</td>
<td>Motion Detection of Underwater Observation System Using Stereo Vision</td>
<td>Masyhuri Husni Binti Mazlan (Shibaura Institute of Technology, Japan)</td>
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<td>OS01 - 05</td>
<td>Hybrid PV-Biomass Free-Piston Stirling Engine Generator System</td>
<td>Mamadou Diouf (Shibaura Institute of Technology, Japan)</td>
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<td>OS01 - 06</td>
<td>PI Control System for Unity Power Factor of Active Rectifier in Solid State Transformer</td>
<td>Fatin Ilyani Jefri (Shibaura Institute of Technology, Japan)</td>
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<td>OS01 - 07</td>
<td>Design of Bidirectional DC-DC Converter for Uninterrupted Power Supply System</td>
<td>Albano Nhandamo (Shibaura Institute of Technology, Graduate School of Electrical Engineering, Japan)</td>
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<td>OS01 - 08</td>
<td>Optimal Design of Hybrid Genset, Wind, PV System: Case Study North Sulawesi</td>
<td>Aji Pakha (Universitas Gadjah Mada, Indonesia); Sarjiya Sarjiya and Suharyanto Suharyanto (Gadjah Mada University, Indonesia); Rachmawan Budiarto (Universitas Gadjah Mada, Indonesia)</td>
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<tr>
<td>OS08 - 01</td>
<td>Improving Productivity of Palm Sugar Industry Through the Granulator Development Based on Ultraviolet Light</td>
<td>Qurrotun A’yun Khoirun Nisa’ (Diponegoro University, Indonesia)</td>
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**VENUE**: CLASSROOM 406  
**Time**: 1:00 - 3:15 PM  
**Session**: GES-1 (Green Energy System-1)

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<tr>
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<tbody>
<tr>
<td>OS05 - 16</td>
<td>Tectonostratigraphy of Banyumas Basin and Its Correlation to Petroleum Potential</td>
<td>Eko Bayu Purwasatriya (Universitas Jenderal Soedirman, Indonesia); Sugeng Surjono (Universitas Gadjah Mada, Indonesia); Hendra Amijaya (Gadjah Mada University, Indonesia); Hendaryono Mr and Salatun Said (UPN Veteran Yogyakarta, Indonesia)</td>
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<tr>
<td>OS05 - 17</td>
<td>Petroleum System of Matarombeo Basin, South-East Arm Sulawesi, Indonesia</td>
<td>Saptomo Samodra and Sugeng Surjono (Universitas Gadjah Mada, Indonesia)</td>
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<td>OS05 - 18</td>
<td>Potential Influence of Secondary Aerosols on Atmospheric Visibility in Eastern Thailand</td>
<td>Nishit Aman (KMUJT &amp; JGSEE, Thailand); Kasemsan Manomaiaphiphoon (King Mongkut's University of Technology Thonburi, Thailand)</td>
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**VENUE**: CLASSROOM 407  
**Time**: 1:00 - 3:15 PM  
**Session**: ESG-3 (Earth Science and Geomatics-3)
### VENUE: CLASSROOM 407

**Time**: 1:00 - 3:15 PM  
**Session**: ESG-3 (Earth Science and Geomatics-3)

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<tr>
<td>OS05 - 19</td>
<td>Shale Reservoir Characterization and Applying Hydraulic Fracturing to Shale Oil Well XX-3P</td>
<td>Dung Ta (Ho Chi Minh City University of Technology, Vietnam); Nhan Danh Ha (Ho Chi Minh City University of Technology - VNU-HCMC, Vietnam)</td>
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<tr>
<td>OS05 - 20</td>
<td>Application of Nanomaterials in Water Based Mud Towards Shale Swelling</td>
<td>Rafat Abdul-Razzaq, Abdul Razak Ismail and Mohd Zaidi Jaafar (Universiti Teknologi Malaysia, Malaysia)</td>
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<tr>
<td>OS05 - 21</td>
<td>Integrating Fracture Height Calculation into Hydraulic Fracturing Procedure by Unified Fracture Design Method</td>
<td>Khanh Nguyen (Bach Khoa University, Vietnam)</td>
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<td>OS05 - 22</td>
<td>Estimating the Vertical Deformation of Java Island Using Ina-CORS Data</td>
<td>Sidik Wibowo, Yustisi Lumbar-Gaol, Ayu Safi', Munawar Kholi, Oktadi Prayoga and Akhmad Basuki (Geospatial Information Agency, Indonesia)</td>
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<tr>
<td>OS05 - 23</td>
<td>Application of Henna Leaves and Boric Acid to Improve the Rheological Properties of Drilling Fluid</td>
<td>Majed Mohamed and Abdul Razak Ismail (Universiti Teknologi Malaysia, Malaysia)</td>
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<td>OS05 - 24</td>
<td>Estimation of Forest Volume from Lidar Derived DEM by Using Simple Morphology Filtering Method (Study Area: Northern Lombok, Indonesia)</td>
<td>Ayu Safi’i and Prayudha Hartanto (Geospatial Information Agency, Indonesia)</td>
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### VENUE: CLASSROOM 306

**Time**: 1:00 - 3:15 PM  
**Session**: IEEE-5

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<tr>
<td>OS13 - 34</td>
<td>Long Term Projection of Electricity Generation Sector in East Kalimantan Province: LEAP Model Application</td>
<td>Muhammad Rizki Kresnawan, Icmi Alif Safitri and Indra Darmawan (Universitas Gadjah Mada, Indonesia)</td>
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<td>OS13 - 37</td>
<td>Natural Frequency and Mode Shape of Rectangle Delamination: Experiment and Simulation</td>
<td>Rahmat Sriwijaya (Universitas Gadjah Mada, Indonesia)</td>
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<td>OS13 - 38</td>
<td>Evaluating Weight Priority on Green Building Using Fuzzy AHP</td>
<td>Robastian Galvani (Universitas Gadjah Mada, Indonesia); Nazrul Effendy and Arif Kusumawanto (Gadjah Mada University, Indonesia)</td>
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<td>Tri Widodo Besar Riyadi (Universitas Muhammadiyah Surakarta, Indonesia)</td>
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**Time:** 3:30-5:00 PM  
**Session:** ICT-2 (Information Technology, Smart System and Automation-2)

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<td>Afina Nurlaili, Rianarto Sarno, Prasetyo Nugrohadi, Adhatus Solichah Ahmadiyah and Muhammad Nezar Mahardika (Institut Teknologi Sepuluh Nopember, Indonesia)</td>
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### VENUE: MEETING ROOM C
**Time:** 3:30-5:00 PM  
**Session:** HRM - EED (Hazard Risk and Management - Engineering Education)

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**VENUE:** MEETING ROOM C  
**Time:** 3:30-5:00 PM  
**Session:** HRM - EED (Hazard Risk and Management - Engineering Education)

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**VENUE:** CLASSROOM 406  
**Time:** 3:30-5:00 PM  
**Session:** SUR-2 (Sustainable Urban and Regional Planning & Development - 2)

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**Time:** 3:30-5:00 PM  
**Session:** ESG-4 (Earth Science and Geomatics-4)

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**Time:** 3:30-5:00 PM  
**Session:** GST (Green and Smart Transportation System)

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