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## Conference Program

### International Exchange and Innovation Conference on Engineering & Sciences IEICES 2019

Oct. 24th (Thursday)

<b>Chikushi Hall, C-CUBE Building, Chikushi Campus, Kyushu University</b>	
09:00 – 09:30	Registration (Lobby, C-CUBE Building)
09:30 – 09:35	Welcome Speech: <b>Assoc. Prof. Osama Eljamal</b> IEICES 2019 Chair <i>Interdisciplinary Graduate School of Engineering Sciences, Kyushu University</i>
09:35 – 09:45	Opening Remark: <b>Prof. Hideharu Nakashima</b> IEICES 2019 Scientific Committee <i>Dean of Interdisciplinary Graduate School of Engineering Sciences, Kyushu University</i>
09:45 – 10:05	About the IGSES, Kyushu University: <b>Prof. Seigi Mizuno</b> IEICES 2019 Scientific Committee <i>Vice Dean of Interdisciplinary Graduate School of Engineering Sciences, Kyushu University</i>
10:05 – 10:20	Photo Session / Coffee Break
<b>Special Session 1 (Chikushi Hall)</b>	
<b>Session Chair</b>	<b>Assoc. Prof. Andrew Spring</b>
<b>Co-chair</b>	<b>Ibrahim Maamoun</b>
10:20 – 10:50	Keynote Speech 1: <b>Assoc. Prof. Hooman Farzaneh</b> <i>Interdisciplinary Graduate School of Engineering Sciences, Kyushu University, Japan</i>
10:50 – 11:20	Keynote Speech 2: <b>Assoc. Prof. Solehuddin Shuib</b> <i>Faculty of Mechanical Engineering, Universiti Teknologi MARA, Malaysia</i>
11:20 – 11:40	Coffee Break
<b>Session 1 Civil Engineering 1 (Chikushi Hall)</b>	
<b>Session 2 Environmental Engineering 1 (Room 303)</b>	
<b>Session Chair</b>	<b>Sahabuddin Sitti Subaedah</b>
<b>Co-chair</b>	<b>Solli Murtyas</b>
11:40 – 11:42	<b>Rilya Rumbayan</b> <i>Manado State Polytechnic</i>
11:42 – 11:54	<b>Achmad Gufron</b> <i>Universitas Gadjah Mada</i>
11:54 – 12:06	<b>Nor Aiman Nor Izmin</b> <i>Universiti Teknologi MARA</i>
	<b>Md. Ahsan Habib</b>
	<b>Sneh Kumar</b>
	<b>Ibrahim Maamoun</b> <i>Kyushu University</i>
	<b>Tamer Shubair</b> <i>Kyushu University</i>
	<b>Frantisek Miksik</b> <i>Kyushu University</i>
12:06 – 13:40	Lunch
<b>Special Session 2</b>	



<b>(Chikushi Hall)</b>		
<b>Session Chair</b>	<b>Assoc. Prof. Osama Eljamal</b>	
<b>Co-chair</b>	<b>Bensaida Khaoula</b>	
13:40 – 14:10	Keynote Speech 3: <b>Mr. Ryo Sato</b> <i>Research Management Solution Consultant Elsevier Japan</i>	
14:10 – 14:20	<b>Coffee Break</b>	
	<b>Session 3</b> <b>Material Science 1</b> <b>(Chikushi Hall)</b>	<b>Session 4</b> <b>Electrical, Computer, Aerospace</b> <b>Engineering and Material Science 2</b> <b>(Room 303)</b>
<b>Session Chair</b>	<b>Solli Murtyas</b>	<b>Sneh Kumar</b>
<b>Co-chair</b>	<b>Sahabuddin Sitti Subaedah</b>	<b>Md. Ahsan Habib</b>
14:20 – 14:32	<b>Nor Hafiez Mohamad Nor</b> <i>Universiti Teknologi MARA</i>	<b>Faheem Abass</b> <i>Mawyah Abdullah Al-Bkheet-Estal-Hasa</i>
14:32 – 14:44	<b>Ji-Hwoan Lee</b> <i>Kyushu University</i>	<b>Suziana Binti Ahmad</b> <i>Kyushu University</i>
14:44 – 14:56	<b>Seung-Hyeon Kim</b> <i>Kyushu University</i>	<b>Aneeka Wasim</b> <i>University of Gujrat</i>
14:56 – 15:08	<b>Paradee Kwanmuang</b> <i>Kasetsart University</i>	<b>Mohd Hafiz Mohd Noh</b> <i>Universiti Teknologi MARA</i>
15:08 – 15:20	<b>Mohd Muzamir Mahat</b> <i>Universiti Teknologi MARA</i>	<b>Farhana Jesmin Tuli</b> <i>Kyushu University</i>
15:20 – 15:44	<b>Coffee Break</b>	
	<b>Session 5</b> <b>Mechanical Engineering 1</b> <b>(Chikushi Hall)</b>	<b>Session 6</b> <b>Civil Engineering 2, Environmental</b> <b>Engineering 2, and Mechanical</b> <b>Engineering 2</b> <b>(Room 303)</b>
<b>Session Chair</b>	<b>Ramadan Eljamal</b>	<b>Khaoula Bensaida</b>
<b>Co-chair</b>	<b>Ibrahim Maamoun</b>	<b>Jaedeok Ko</b>
15:44 – 15:56	<b>Jannatul Fardous</b> <i>Kyushu University</i>	<b>Hamidun Bin Mohd Noh</b> <i>Universiti Tun Hussein Onn Malaysia</i>
15:56 – 16:08	<b>Nor Fazli Adull Manan</b> <i>Universiti Teknologi MARA</i>	<b>Do Yeon Kim</b> <i>Kumoh National Institute of Technology</i>
16:08 – 16:20	<b>Ahmad Hussein Abdul Hamid</b> <i>Universiti Teknologi MARA</i>	<b>Nur`Ain Idris</b> <i>Universiti Tun Hussein Onn Malaysia</i>
16:20 – 16:32	<b>Shahrul Hisyam Marwan</b> <i>Kyushu University</i>	<b>Relebohile Mokete</b> <i>Kyushu University</i>
16:32 – 16:44	<b>Helmi Bin Rashid</b> <i>Universiti Teknologi MARA</i>	<b>Mohd Suhairil Meon</b> <i>Universiti Teknologi MARA</i>
<b>16:44 – 17:00</b>	<b>Closing Remark</b>	



## Oct. 25th (Friday)

### Special Session 3 (Chikushi Hall)

<b>Session Chair</b>	Assoc. Prof. Osama Eljamal	
<b>Co-chair</b>	Bensaida Khaoula	
09:30 – 10:00	Keynote Speech 4: <b>Dr. Hadi Farabi-Asl</b> <i>International Institute for Carbon-Neutral Energy Research, Kyushu University, Japan</i>	
10:00 – 10:24	Coffee Break	
	<b>Session 7 Energy Sciences (Chikushi Hall)</b>	<b>Session 8 Optoelectronics (Room 303)</b>
<b>Session Chair</b>	M. Khalid Hossain	Jaedeok Ko
<b>Co-chair</b>	Shahrul Hysyam Marwan	Farhana Jesmin Tuli
10:24 – 10:36	Wasim Abass <i>Mawyah Abdullah Al-Bkheet-Estal-Hasa</i>	Yu Han <i>Kyushu University</i>
10:36 – 10:48	Sampad Ghosh <i>Kyushu University</i>	Zan Hui Chen <i>Kyushu University</i>
10:48 – 11:00	M. L. Palash <i>Kyushu University</i>	Satoshi Ogawa <i>Kyushu University</i>
11:00 – 11:12	Tahmid Hasan Rupam <i>Kyushu University</i>	Li Wenying <i>Kyushu University</i>
11:12 – 11:24	Syed Fahad Zamir <i>Nora Cooling EST</i>	Shingo Murakami <i>Kyushu University</i>
11:24 – 13:24	Lunch	
	<b>Session 9 Mechanical Engineering 2 (Chikushi Hall)</b>	<b>Session 10 Environmental Engineering 3 (Room 303)</b>
<b>Session Chair</b>	Shahrul Hysyam Marwan	Farhana Jesmin Tuli
<b>Co-chair</b>	M. Khalid Hossain	Jaedeok Ko
13:24 – 13:36	Kaiser Ahmed Rocky <i>Kyushu University</i>	Sami Alkudhayri <i>Kyushu University</i>
13:36 – 13:48	J. B. Saedon <i>Universiti Teknologi MARA</i>	Khaoula Bensaida <i>Kyushu University</i>
13:48 – 14:00	S. Shawal <i>Universiti Teknologi MARA</i>	Ramadan Eljamal <i>Kyushu University</i>
14:00 – 14:12	Mohammad Azeeb Mazlan <i>Universiti Teknologi MARA</i>	Omar Falyouna <i>Kyushu University</i>
14:12 – 14:24	Wan Fatimatul Aifaa Wan Fadzil <i>Universiti Teknologi MARA</i>	Md. Mariar Rahman <i>Kyushu University</i>
14:24 – 14:40	Coffee Break	



5<sup>th</sup> International Exchange and Innovation Conference on Engineering & Sciences  
Kyushu University, Fukuoka, Japan  
October 24-25<sup>th</sup>, 2019

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14:40 – 16:30

Poster session  
(3<sup>rd</sup> floor C-cube building)

Closing Remark & Best Presenter Award

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16:30 – 17:00

Prof. Seigi Mizuno  
*Vice Dean of Interdisciplinary Graduate School of Engineering Sciences,  
Kyushu University*

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## List of presented papers

Page	Theme: Civil and Environmental Engineering
1-3	<b>A Study on the Utilization of Local Coconut Timber Waste as Sustainable Building Material</b> <u>Rilya Rumbayan</u> , Meita Rumbayan <i>Manado State Polytechnic</i>
4-8	<b>Study on Effect of Reinforcement using Helical Bars on Circular RC Columns under Cyclic Lateral Load</b> <u>Do Yeon Kim</u> , Ja-Eun Shin, Seong-Kyum Kim, Il-Young Jang <i>Kumoh National Institute of Technology</i>
9-11	<b>Effect of Nano Zero Valent Iron Delivery Method into Porous Media on Phosphorus Removal from Groundwater</b> <u>Ibrahim Maamoun</u> , Osama Eljamal, Ramadan Eljamal, Omar Falyouna, Yuji Sugihara <i>Kyushu University</i>
12-15	<b>The Stability of Water Molecular Bridges in Ombrotrophic Peatland Soil</b> <u>Frantisek Miksik</u> , Štěpánka Freithová, Josef Kotlík, Jiří Kučeřík, Alasdair MacLeod <i>Brno University of Technology, Kyushu University</i>
16-18	<b>Analogy of Iron-Copper and Iron-Silver Bimetals during the Corrosion Process</b> <u>Relebohile Mokete</u> , Osama Eljamal <i>Kyushu University</i>
19-21	<b>Thermodynamic Effect on Boron Removal from Aqueous Solutions by MgAl-Layered Double Hydroxide</b> <u>Sami Alkhudhayri</u> , Osama Eljamal, Ibrahim Maamoun, Ramadan Eljamal <i>Kyushu University</i>
22-23	<b>Effect of Bimetallic Zero Valent Iron Nanoparticles Ag/NZVI on Bacterial Growth</b> <u>Khaoula Bensaida</u> , Osama Eljamal, Ramadan Eljamal, Relebohile Mokete, Yuji Sugihara <i>Kyushu University</i>
24-25	<b>Upgrading of Aerobic Sequencing Batch Reactor System with Adding Nanoscale Zero Valent Iron for Wastewater Treatment</b> <u>Ramadan Eljamal</u> , Osama Eljamal, Ibrahim Maamoun, Yuji Sugihara <i>Kyushu University</i>
26-27	<b>Removal of Cesium from Contaminated Waters by Employing Iron-based Nanoparticles and Nanocomposites</b> <u>Omar Falyouna</u> , Osama Eljamal, Ibrahim Maamoun <i>Kyushu University</i>
28-29	<b>Factorial Experimental Design for Optimization of Cesium Removal from Aqueous Solutions</b> <u>Md. Mariar Rahman</u> , Shamal C. Karmaker, Animesh Pal, Osama Eljamal, Bidyut Baran Saha <i>Kyushu University</i>

Page	Theme: Energy Sciences
30-31	<b>Thermoelectric Properties of Graphene and Carbon Nanotube</b> <u>Sampad Ghosh</u> , Sivasankaran Harish, Bidyut Baran Saha <i>Kyushu University</i>
32-33	<b>Investigation of Surface Energy of Porous Adsorbents</b> <u>M. L. Palash</u> , Animesh Pal, Bidyut Baran Saha <i>Kyushu University</i>
34-35	<b>Adsorption Characterization of Aluminum Fumarate Metal-organic Framework</b> <u>Tahmid Hasan Rupam</u> , M.L. Palash, Israt Jahan, Bidyut Baran Saha <i>Kyushu University</i>
36-38	<b>Occupancy Rate and Water Utility Effect on Energy Consumption of Commercial Building: Case Study Grand Inna Malioboro Hotel in Indonesia</b> <u>Solli Murtyas</u> , Mohammad Ridwan, Rachmawan Budiarto <i>Kyushu University</i>
39-43	<b>Dynamic Simulation of a Thermal Management System Consisting of a CO<sub>2</sub> Heat Pump and a Water-loop</b> <u>Jaedeok Ko</u> , Nobuo Takata, Kyaw Thu, Takahiko Miyazaki <i>Kyushu University</i>
Page	Theme: Material and Mechanical Engineering
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47	<b>Characterization on Microstructural Evolution of Y<sub>2</sub>O<sub>3</sub> Fabricated by Spark Plasma Sintering</b> <u>Ji-Hwoan Lee</u> , Byung-Nam Kim, Byung-Koog Jang <i>Kyushu University</i>
48	<b>The Effect of Vanadium Addition on the Microstructure and Mechanical Properties of Indefinite Chilled Cast Iron</b> <u>Seung-Hyeon Kim</u> , Eung-Ryul Baek, Byung-Koog Jang <i>Kyushu University</i>
49-52	<b>Synthesis of a Novel Sensor Based on Orcinol-dansyl Derivative for Fluoride Ion Detection</b> <u>Paradee Kwanmuang</u> , Apisit Songsasen, Boontana Wannalarse <i>Kasetsart University</i>
53-57	<b>Morphological, Structural and Electrochemical Studies of Conductive Polyaniline Coated Polyester Fabrics</b> <u>Mohd Muzamir Mahat</u> , Nazreen Che Roslan, Muhammad Asyrap Kamarudin, Siti Nurzatul Ikma Omar, Mohamed Izzharif Abdul Halim, Rosmammuhamadani Ramli, Mohd Muzamir Mahat <i>Universiti Teknologi MARA</i>
58-59	<b>Interfacial Magnetic Properties of Fe Deposited on MoS<sub>2</sub> Flakes</b> <u>Farhana Jesmin Tuli</u> , Mohammad Tawheed Kibria, Takeshi Nakagawa, Seigi Mizuno <i>Kyushu University</i>



60-62	<b>Biomechanical Analysis of Hypertrophic Cardiomyopathy Behavior of Human Heart using Dynamic Finite Element Method</b> <u>Shahrul Hisyam Marwan</u> , Mitsugu Todo <i>Kyushu University</i>
63-66	<b>Modelling Low-Velocity Impact on Composite Laminate Considering Inter and Intralaminar Damage</b> <u>Mohd Suhairil Meon</u> , N.H. Mohamad Nor, S. Shawal, J.B. Saedon, M.N. Rao, K.-U. Schröder <i>Universiti Teknologi MARA</i>
67-69	<b>Adsorption Characteristics of CO<sub>2</sub> onto Carbon Nanotube for Adsorption Cooling/Capturing Applications</b> <u>Kaiser Ahmed Rocky</u> , Animesh Pal, Bidyut Baran Saha <i>Kyushu University</i>
70-72	<b>Preparation and Characterization of Yttrium Doped Barium-Zirconates at High Temperature Sintering</b> <u>M. Khalid Hossain</u> , Kenichi Hashizume <i>Kyushu University</i>
73-76	<b>Coupling Approach of Lattice Boltzmann Fluid Simulation and Finite Element Analysis of Geophysical Properties: Application to Natural Rock Fracture in Geothermal Area</b> <u>Kazuki Sawayama</u> , Takeshi Tsuji, Yasuhiro Fujimitsu <i>Kyushu University</i>
77-79	<b>Integrating 3D-Printing Technology in Assistive Adaptive Device Prescription in Rehabilitation Medicine: A Conceptual Framework</b> <u>Natiara Binti Mohamad Hashim</u> , NAC Zakaria, S Shukor, MZ Amin, NS Mahdzir, NM Mustafah, NF Aroslan <i>Universiti Teknologi MARA</i>
80	<b>Non-uniform Sintering Behavior of Y<sub>2</sub>O<sub>3</sub> Ceramics</b> <u>Ji-Hwoan Lee</u> , Byung-Nam Kim, Byung-Koog Jang <i>Kyushu University</i>
81-83	<b>Propagation Mode Retention Using Strongly Coupled Multi-Core Fiber</b> <u>Mahmoud Nasef</u> , Kantaro Fujimoto, Haisong Jiang, Kiichi Hamamoto <i>Kyushu University</i>
84-86	<b>The Effect of Post Treatment in Pore Development of Activated Carbon Prepared from Rice Husk</b> <u>Chairunnisa</u> , Kyaw Thu, Takahiko Miyazaki, Jin Miyawaki, Koji Nakabayashi, Muhammad Hamid Mahmood, Muhammad Sultan <i>Kyushu University</i>
87-88	<b>Design &amp; Analysis of 3D Printed Prosthetic Hand for Symbrachydactyly Patients</b> <u>Mohammad Azeeb Mazlan</u> , Wan Fatimatul Aifaa Wan Fadzil, Helmi Rashid, Abdul Halim Abdullah <i>Universiti Teknologi MARA</i>
89-92	<b>Effects of Varus &amp; Valgus Implant Malposition in Resurfacing Hip Arthroplasty</b> <u>Nor Aiman Nor Izmin</u> , Mitsugu Todo, Abdul Halim Abdullah <i>Universiti Teknologi MARA, UiTM</i>



93-96	<b>Feasibility Study of Theophylline Solution in Water and Sodium Carboxymethylcellulose</b> <u>Jannatul Fardous</u> , A H M Saifuddin, Sultana Amena, Sakina Sultana <i>Kyushu University</i>
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100-102	<b>Significant Propagation Loss Reduction on Silicon High-Mesa Waveguides Using Thermal Oxidation Technique</b> <u>Yu Han</u> , Wenying Li, Haisong Jiang, Kiichi Hamamoto <i>Kyushu University</i>
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105-106	<b>Proposal of 1×N Optical Mode Switch Based on Spatial Single Dimensional Mode</b> <u>Satoshi Ogawa</u> , Haisong Jiang, Kiichi Hamamoto <i>Kyushu University</i>
107-108	<b>Compact Breath Sensing using Amplifier Assisted CRDS (Cavity Ring-down Spectroscopy)</b> <u>Li Wenying</u> , Yu Han, Zanhui Chen, Haisong Jiang, Kiichi Hamamoto <i>Kyushu University</i>
109-110	<b>Observation of 60 GHz and 20 GHz Multiple Photon-Photon Resonances Using Active Multimode Interferometer Laser Diodes</b> <u>Shingo Murakami</u> , Bingzhou Hong, Haisong Jiang, Kiichi Hamamoto <i>Kyushu University</i>
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116-117	<b>“Can People Detect Dilemma Strength in A 2 Player 2 Strategy Game?”: A Survey</b> <u>Md. Ahsan Habib</u> <i>Kyushu University</i>