

*5<sup>th</sup> Seminar Workshop on Utilization of Waste Materials*  
*2<sup>nd</sup> International Symposium on Concrete and Structure for the Next Generation*

## **PROGRAMME**

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### **September 7, 2017**

8:00 – 8:30 AM	Registration
8:30 – 9:00 AM	<b>OPENING CEREMONIES</b> Henry Sy Sr. Hall
	<b>MESSAGES</b>
9:00 – 9:10 AM	Br. Raymundo Belardo Suplido FSC, PhD Brother President, De La Salle University
9:10 – 9:20 AM	Prof. Dr. Toshio Maruyama Executive Vice President for Education and International Affairs, Tokyo Institute of Technology
9:20 – 9:30 AM	<b>CONFERENCE MESSAGE</b> Dr. William Hong President, Association of Tokyo Tech Alumni and Research Scholars
9:30 – 9:45 AM	Photo Session
	<b>KEYNOTE LECTURES</b>
9:45 – 10:15 AM	<i>Service Learning on Wastes Utilization</i> Prof. Dr. Susan Gallardo University Fellow, De La Salle University
10:15 – 10:45 AM	<i>Lifetime Prediction of Reinforced Seawater Concrete Mixed with Fly Ash which were Produced in Japan or Philippines Against Chloride Attack</i> Prof. Dr. Nobuaki Otsuki Emeritus Professor, Tokyo Institute of Technology
10:45 – 11:15 AM	<i>Characterizing Secondary Materials to Optimize Waste Utilization</i> Assoc. Prof. Dr. Leslie Joy Diaz

Department of Mining, Metallurgical and Materials  
Engineering, University of the Philippines Diliman

11:15 – 11:45 AM	<i>Integration of Port Inspection System for Port Concrete Structures</i> Prof. Dr. Mitsuyasu Iwanami Department of Civil Engineering, Tokyo Institute of Technology
11:45 – 11:50 AM	Promotional Talk Tokyo Institute of Technology
11:50 – 12:10 PM	Company Talk Chiyoda Philippines Republic Cement
12:10 PM – 1:00 PM	<b>LUNCH</b>
1:00 – 4:30 PM	<b>TECHNICAL SESSIONS</b> <i>5<sup>th</sup> Seminar Workshop on Utilization of Waste Materials</i> <i>2<sup>nd</sup> International Symposium on Concrete and Structure for the Next Generation</i> Breakout Rooms
4:30 – 5:30 PM	<b>CLOSING CEREMONIES</b> Henry Sy Sr. Hall  Synthesis of Sessions Dr. Lessandro Estelito O. Garciano Chair, Department of Civil Engineering, De La Salle University Manila  Closing Remarks Dr. Shinya Nisizaki Director, Tokyo Tech Philippines
6:30 – 9:00 PM	<b>FELLOWSHIP DINNER</b>
<b>September 8, 2017</b>	Eco-Tour (Tagaytay)

Engr. Ma. Emilia Miguel and Engr. Paolo Ian Lucero  
*Masters of Ceremony*

# Technical Sessions

## SESSION A Waste Utilization I

Venue: Henry Sy Hall

Paper ID	Time	Presentation
A1	1:00 PM	<b>A Study on the Strength Improvement of Local Clayey Soil Using Powdered Eggshells</b> <i>Dexter L. Nuada, Vic Angelo G. Vizconde, Matthew Travis M. Alcantara</i> <i>University of the Philippines, Diliman, Quezon City, Philippines</i>
A2	1:15 PM	<b>Synthesis of One-Part Geopolymer Soil Stabilizer Using D-Optimal Mixture Design</b> <i>April Anne S. Tigue<sup>1</sup>, Jonathan R. Dungca<sup>1</sup>, Hirofumi Hinode<sup>2</sup>, Winarto Kurinawan<sup>2</sup></i> <i>Michael Angelo B. Promentilla<sup>1</sup></i> <sup>1</sup> <i>De La Salle University, Manila, Philippines</i> <sup>2</sup> <i>Tokyo Institute of Technology, Tokyo, Japan</i>
A3	1:30 PM	<b>Composite Fiberboard for Thermal Insulation Engineered from Discarded Banana Peduncle</b> <i>Gilberto Sapin<sup>1,2</sup>, Leslie Joy Diaz<sup>1</sup></i> <sup>1</sup> <i>University of the Philippines, Diliman, Quezon City, Philippines</i> <sup>2</sup> <i>Forest Products Research and Development Institute, Los Baños, Laguna, Philippines</i>
A4	1:45 PM	<b>Utilization of Rice Husk as Silica Source Via Non Combustion Preparation</b> <i>Winarto Kurniawan, Hirofumi Hinode</i> <i>Tokyo Institute of Technology, Tokyo, Japan</i>
A5	2:00 PM	<b>Maximization and Size-Tuning of Precipitated Nanosilica Extracted from Rice Husk Fuel Ash</b> <i>Tiffany Louise Lao, Jesha Faye Librea, Jill Z. Manapat, Leslie Joy Diaz</i> <i>University of the Philippines, Diliman, Quezon City, Philippines</i>
A6	2:15 PM	<b>Investigation on Increase of Barium in Simulated Wasteform with Application of Electrical Migration Technique</b> <i>Katsufumi Hashimoto<sup>1</sup>, Andrew J. MacArthur<sup>2</sup>, Hajime Kinoshita<sup>2</sup>, John Provis<sup>2</sup></i> <sup>1</sup> <i>Kyoto University, Kyoto, Japan</i> <sup>2</sup> <i>University of Sheffield, Sheffield, United Kingdom</i>

2:30 – 2:45 PM Coffee Break

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## SESSION B

### Waste Utilization II

Venue: Breakout Room Y

Paper ID	Time	Presentation
B1	1:00 PM	<b>Recovery of Cadmium from Synthetic Mining Wastewater Through Adsorption Using <i>Citrofortunella microcarpa</i> Fruit Peel</b> <i>Rosabelle Louise Caram, Ma. Ivy Dela Cruz, Klarissa Mai Lasala</i> <i>University of the Philippines, Diliman, Quezon City, Philippines</i>
B2	1:15 PM	<b>Optimization of Mix Proportions of Compressed Earth Blocks with Rice Straw Using Artificial Neural Network</b> <i>Emerson Gapuz, Jason Maximino C. Ongpeng</i> <i>De La Salle University, Manila, Philippines</i>
B3	1:30 PM	<b>Recyclability of Heavy Metal Loaded Iron-Modified Montmorillonite/ Polycaprolactone Nanofiber Membrane Through Desorption</b> <i>Nerissa Unielle D. Quenga, John Kenneth A. Cruz, Leslie Joy L. Diaz</i> <i>University of the Philippines, Diliman, Quezon City, Philippines</i>
B4	1:45 PM	<b>The Utilization of Fly Ash as Granulated Coal Ash for Restoration of Coastal Environment</b> <i>Kenta Mizumoto<sup>1</sup>, John Andrew A. Tiria<sup>2</sup>, Augustus C. Resurreccion<sup>2</sup>, Tadashi Hibino<sup>1</sup></i> <i><sup>1</sup>Hiroshima University, Hiroshima, Japan</i> <i><sup>2</sup>University of the Philippines, Diliman, Quezon City, Philippines</i>
B5	2:00 PM	<b>Comparison of Strength and Durability Performance of Geopolymerized Bricks Using Different Alkali Activators</b> <i>Christian Orozco, Kim Deirdre Lynn T. Castro, Ma. Mikaela T. de Boda</i> <i>University of the Philippines, Diliman, Quezon City, Philippines</i>
B6	2:15 PM	<b>Mechanical Property Characterization of Particle Board Using Discarded Aseptic Cartons</b> <i>Teodinis P. Garcia, Reynaldo O. Baarde, Israel C. Bungay, Marjorie A. Dazo, John Paul S. Getubig, Francis John L. Guevarra, Shana Marie O. Salumag</i> <i>Technological University of the Philippines, Manila, Philippines</i>

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2:30 – 2:45 PM Coffee Break

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# SESSION C

## Concrete I

Venue: Breakout Room X

Paper ID	Time	Presentation
C1	1:00 PM	<b>Performance of Compressed Stabilized Earth Blocks (CSEB) with Different Natural Fibers as Fiber Reinforcement</b> <i>Bernardo Lejano, Kyle Solomon Pineda</i> <i>De La Salle University, Manila, Philippines</i>
C2	1:15 PM	<b>Compressed Earth Blocks with Powdered Green Mussel Shell as Partial Binder and Pig Hair as Fiber Reinforcement</b> <i>Bernardo Lejano, Ram Julian Gabaldon, Patrick Jason Go, Carlos Gabriel Juan, Michael Wong</i> <i>De La Salle University, Manila, Philippines</i>
C3	1:30 PM	<b>Cost-Benefit Analysis of Concrete Mixed with Waste Ceramic Tiles and Fly Ash</b> <i>Ronaldo S. Gallardo, Kenneth Jae T. Elevado</i> <i>De La Salle University, Manila, Philippines</i>
C4	1:45 PM	<b>Impedance Spectroscopy of Cement Paste Matrix Admixed with Amorphous Nanosilica Synthesized from Rice Hull Ash</b> <i>Joshua T. Dimasaka, Marish S. Madlangbayan, Alvin Karlo G. Tapia</i> <i>University of the Philippines, Los Baños, Laguna, Philippines</i>
C5	2:00 PM	<b>Utilizing Cattle Manure as Partial Replacement for Cement in Concrete</b> <i>Mike Christian D. Gamboa, Carlo Amante C. Liberato II, Genesis Israel N. Sugui, John Henry M. Tan, Cheryl Lyne C. Roxas</i> <i>De La Salle University, Manila, Philippines</i>
C6	2:15 PM	<b>Improvement of Water Penetration Resistance of Bond Between Concrete and Steel by Pozzolanic Materials and Superabsorbent Polymer</b> <i>Chatri Panitudom, Mitsuyasu Iwanami, Nobuhiro Chijiwa</i> <i>Tokyo Institute of Technology, Tokyo, Japan</i>

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2:30 – 2:45 PM **Coffee Break**

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## SESSION D

### Waste Utilization III

Venue: Breakout Room Y

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Paper ID	Time	Presentation
D1	2:45 PM	<b>Feasibility of Talisay Fruits Shells to Treat Ni(II)-spiked water</b> <i>Emely G. Barte, Ma. Angelica B. Borcelis, Christian Joseph Buenviaje, John Kenneth A. Cruz</i> <i>University of the Philippines, Diliman, Quezon City, Philippines</i>
D2	3:00 PM	<b>High Fluorescence Carbon Dots from Kappa-Carrageenan for Environmental Sensing and Biological Imaging</b> <i>Ma. Concepcion A. Sinoy<sup>1,2</sup>, Mark Daniel G. de Luna<sup>1</sup>, Peerasak Paoprasert<sup>2</sup></i> <sup>1</sup> <i>University of the Philippines, Diliman, Quezon City, Philippines</i> <sup>2</sup> <i>Thammasat University, Pathumthani, 12120 Thailand</i>
D3	3:15 PM	<b>Sediment Microbial Fuel Cells for Water Quality Improvement</b> <i>Satoshi Yamaji</i> <i>Hiroshima University, Hiroshima, Japan</i>
D4	3:30 PM	<b>Adsorption of Cu(II) and Hg(II) from Aqueous Solutions onto Iron-Modified Monmorillonite/Polycaprolactone Membrane</b> <i>Lester Raj A. Somera, Ralph C. Cuazon, John Kenneth A. Cruz, Leslie Joy L. Diaz</i> <i>University of the Philippines, Diliman, Quezon City, Philippines</i>
D5	3:45 PM	<b>Calcite-Alginate Bio-Composite Formation in Alginate Gel Films</b> <i>Keiyu Kawaai<sup>1</sup>, Takahiro Nishida<sup>2</sup>, Atsushi Saito<sup>3</sup></i> <sup>1</sup> <i>Ehime University, Ehime, Japan</i> <sup>2</sup> <i>Kyoto University, Kyoto, Japan</i> <sup>3</sup> <i>HAZAMA ANDO Corporation, Ibaraki, Japan</i>

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4:30 PM Closing Ceremony (Henry Sy Sr. Hall)

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# SESSION E

## Concrete II

Venue: Breakout Room X

Paper ID	Time	Presentation
E1	2:45 PM	<b>Compressive Behavior of Crushable Pinatubo Lahar Sand</b> <i>Rajiv Eldon Abdullah<sup>1</sup>, Jiro Takemura<sup>2</sup></i> <i>University of Santo Tomas, España, Manila, Philippines</i> <i>Tokyo Institute of Technology, Tokyo, Japan</i>
E2	3:00 PM	<b>Analysis of the Performance of Concrete Hollow Blocks with Plastic Particles</b> <i>Ma. Brida Lea D. Diola, Renz Gian B. Cavida, Roland P. Mondano</i> <i>University of the Philippines, Diliman, Quezon City, Philippines</i>
E3	3:15 PM	<b>Study on Cement-Free Concrete Using Fly Ash</b> <i>Hikaru Tanaka<sup>1,2</sup>, Winarto Kurniawan<sup>1</sup>, Keisuke Matsukawa<sup>1,3</sup>, Hirofumi Hinode<sup>1</sup></i> <i><sup>1</sup>Tokyo Institute of Technology, Tokyo, Japan</i> <i><sup>2</sup>Nippon Koei Co., Ltd., Tokyo, Japan</i> <i><sup>3</sup>Chiyoda Corporation, Yokohama, Japan</i>
E4	3:30 PM	<b>Influence of Reducibility Environment Around Steel Bars on Steel Corrosion in Concrete</b> <i>Takahiro Nishida<sup>1</sup>, Nobuaki Otsuki<sup>2</sup>, Atsushi Saito<sup>3</sup>, Keiyu Kawai<sup>4</sup></i> <i><sup>1</sup>Kyoto University, Kyoto, Japan</i> <i><sup>2</sup>Tokyo Institute of Technology, Tokyo, Japan</i> <i><sup>3</sup>HAZAMA ANDO Corporation, Ibaraki, Japan</i> <i><sup>4</sup>Ehime University, Ehime, Japan</i>
E5	3:45 PM	<b>Effects of Crumb Rubber And Waste Glass As Partial Aggregates Replacement on the Hardened Properties of Fly Ash-Based Geopolymer Concrete</b> <i>Melito A. Baccay, Teodinis P. Garcia, Almiera P. Maunahan, Manuel Z. Evangelista Jr., Ruby Ann B. Quirafu, Luke Gerald I. Rabulan and John Carlo N. Tiempo</i> <i>Technological University of the Philippines, Manila, Philippines</i>

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4:30 PM Closing Ceremony (Henry Sy Sr. Hall)

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## SESSION F

### Waste Utilization IV & Concrete III

Venue: Henry Sy Hall

Paper ID	Time	Presentation
F1	2:45 PM	<b>Phosphorus Recovery from Sewage by Amorphous Calcium Silicate Hydrates Synthesized from Fly Ash</b> <i>Yu Ando , Winarto Kurniawan , Hirofumi Hinode</i> <i>Tokyo Institute of Technology, Tokyo, Japan</i>
F2	3:00 PM	<b>Synthesis of Flouride-Releasing Apatite Composite Derived from Agricultural Wastes for Dental Applications</b> <i>Luis Angelo De Gala, Gerardo Martin Quindoza III, Jessa Hablado, John Kenneth Cruz</i> <i>University of the Philippines, Diliman, Quezon City, Philippines</i>
F3	3:15 PM	<b>Utilization of Waste Glass as a Replacement for Fine Aggregates in Controlled Low Strength Materials (CLSM)</b> <i>Maxell Lumbera, Marshery Hajim</i> <i>University of the Philippines, Diliman, Quezon City, Philippines</i>
F4	3:30 PM	<b>Development of Abaca-reinforced Fly Ash Geopolymer Foamed With H2O2</b> <i>Janne Pauline S. Ngo</i> <i>De La Salle University, Manila, Philippines</i>
F5	3:45 PM	<b>A New Class of Chemical Admixtures to Improve Concrete Rheology</b> <i>Seow Kiat Huat</i> <i>BASF South East Asia Pte Ltd, Singapore</i>

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4:30 PM Closing Ceremony (Henry Sy Sr. Hall)

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