

**LIST OF ABSTRACTS FOR SCIENTIFIC POSTERS PRESENTATION**  
**40h Annual Scientific Meeting; 11-12 July 2018**  
**Science and Technology-Enhanced Transformation for Sustainability and Resiliency (2018-2030)**

**ENGINEERING**

No.	AUTHOR/S	MAJOR AUTHOR	PRESENTING AUTHOR	AFFILIATION	TITLE OF PAPER	REMARKS
EST - 01	Rodrigo V. Dejeto Kiyofumi Kurumisawa	Rodrigo V. Dejeto	Rodrigo V. Dejeto	1Division of Natural Sciences and Mathematics, University of the Philippines Visayas Tacloban College, Tacloban City, 6500 Philippines 3Laboratory of Eco-Materials and Resources, Division of Sustainable Resources Engineering, Faculty of Engineering, Hokkaido University, Sapporo, 060-8628, Japan	Adaptation of Powers' model in predicting the degree of hydration of ordinary Portland cement (OPC) paste	
EST - 02	Yasmin D.G. Edañaol, Salvador C. Buenviaje Jr., Ken Aldren S. Usman and Leon M. Payawan Jr.	Yasmin D.G. Edañaol	Yasmin D.G. Edañaol	1 Materials Science and Engineering Program, College of Science, University of the Philippines, Diliman, Quezon City 2 Laboratory of Inorganic Nanomaterials, Institute of Chemistry, University of the Philippines, Diliman, Quezon City yasmin_501_96@yahoo.com.ph	Adsorption Studies on the Removal of Organic Pollutants by the use of Zeolite Derived from Mount Pinatubo Ejecta	
EST - 03	Aldwin Christian Lacuesta, Marvin Herrera, Ronniel Manaloc and Mary Donnabelle Balelaa	Donnabelle Balela	Aldwin Christian Lacuestaa	aDepartment of Mining, Metallurgical and Materials Engineering, College of Engineering, University of the Philippines Diliman, Quezon City, Philippines 1101 bInstitute of Mathematical Sciences and Physics, College of Arts and Sciences, University of the Philippines Los Baños, College, Laguna 4031 cDepartment of Forest Products and Paper Science, College of Forestry, University of the Philippines Los Baños, College, Laguna 4031 *Phone: +(63)-(2)-981-8500 loc. 3171 / email: atlacuesta@up.edu.ph	Antibacterial property of CuO synthesized on hand-made kapok paper	

EST - 04	Nathaniel C. Bantayan, Leonardo D. Barua and Karla Jane P. Gonzalvo	Nathaniel C. Bantayan	Nathaniel C. Bantayan	1Institute of Renewable Natural Resources, College of Forestry and Natural Resources, University of the Philippines Los Baños, College, Laguna. (049) 536-2557. ncbantayan@up.edu.ph 2Makiling Center for Mountain Ecosystems, College of Forestry and Natural Resources, University of the Philippines Los Baños, College, Laguna	Canopy gap detection and characterization following a typhoon disturbance using UAS Imagery	
EST - 05	Jonathan N. Patricio <sup>1</sup> , Eduardo C. Atayde Jr.1, Menandro C. Marquez <sup>2</sup> , Susan D. Arco* <sup>1</sup>	Susan D. Arco	Jonathan N. Patricio	1Institute of Chemistry, University of the Philippines Diliman, Quezon City, 2School of Chemical Engineering and Chemistry, Mapua University, Manila jonathan.patricio@g.msuiit.edu.ph	Carbon-based Supercapacitors Utilizing Electrospun Nanofibers of Imidazole-based Ionic Liquid/Polymer Blends	
EST - 06	Rhazzel Jane A. Dalumay; Roselle Y. Mamuad*	Rhazzel Jane A. Dalumay	Roselle Y. Mamuad	Department of Chemical Engineering, Mariano Marcos State University, City of Batac, 2906 Ilocos Norte *roselle.yago@yahoo.com/ +639338517292	Comparative Study on the Optimization of Pretreatment Parameters of Engineered Bamboo Industry (EBI) Waste for Cellulose Fiber Production	
EST - 07	Allan N. Soriano, Patricia Anne D. Cruz, Ed-Jefferson E. Yamat, and Adonis P. Adornado	Patricia Anne D. Cruz	Patricia Anne D. Cruz	School of Chemical, Biological and Materials Engineering, and Sciences, Mapúa University, Manila 1002, Philippines e-mail address: ansoriano@mapua.edu.ph; apadornado@mapua.edu.ph tel.: +63(2) 247-5000 local 3301; direct/fax: +63(2) 527-7021	Computational Fluid Dynamics (CFD) Analysis of the Heat Transfer and Fluid Flow of Copper (II) Oxide-Water Nanofluid in a Shell and Tube Heat Exchanger	
EST - 08	Isaiah Ubando, Emma Tayag* and Ruth Damian*	Isaiah Ubando	Isaiah Ubando	Standards and Testing Division (STD), Industrial Technology Development Institute (ITDI), Department of Science and Technology, Bicutan, Taguig City, Philippines isaiahubando@gmail.com	Determination of Turbidity in Water using UV-Vis Spectrophotometer (In-House Method)	

EST - 09	Nathaniel R. Alibuyog, Hazel James P. Agngarayngay, Edmund Edison A. Esteban & Karen Joyce B. Santiago	Nathaniel R. Alibuyog	Nathaniel R. Alibuyog	Mariano Marcos State University, City of Batac, Ilocos Norte Tel #: (077) 600-0717, natzalibuyog@yahoo.com	Estimating Earthquake Risks: The Use of REDAS Software in Ilocos Norte	
EST - 10	Allan N. Soriano, Frances Anne D. Magsombol, Jairus Lemuel G. Bote, and Adonis P. Adornado*	Frances Anne D. Magsombol	Frances Anne D. Magsombol	School of Chemical, Biological and Materials Engineering, and Sciences, Mapúa University, Manila 1002, Philippines e-mail address: ansoriano@mapua.edu.ph; apadornado@mapua.edu.ph tel.: +63(2) 247-5000 local 3301; direct/fax: +63(2) 527-7021	Estimation of Diffusion Coefficients of Different Brands of Loperamide in Water at Infinite Dilution using Conductance Method	
EST - 11	Mary Donnabelle L. Balela, Clarisse Mancera, Bianca Patrica Reyes and Ma. Christine Reyes	Mary Donnabelle L. Balela	Mary Donnabelle L. Balela	Sustainable Electronic Materials Group, Department of Mining, Metallurgical and Materials Engineering, University of the Philippines, 1101 Diliman, Quezon City *mlbalela1@up.edu.ph	Fabrication of Anodized Zirconia Nanotubes for Lead Adsorption	
EST - 12	Beatriz A. Belmonte Michael Francis D. Benjamin Raymond R. Tan	Beatriz A. Belmonte	Beatriz A. Belmonte	1 Chemical Engineering Department, De La Salle University, 2401 Taft Avenue, 0922 Manila, Philippines 2Chemical Engineering Department, University of Santo Tomas, España Blvd., 1015 Manila, Philippines  Corresponding Author's E-mail: babelmonte@ust.edu.ph	Model-Based Synthesis and Monte Carlo Simulation Approach to Planning Biochar-Based Carbon Management Networks	
EST - 13	Darvy P. Ong	Darvy P. Ong	Darvy P. Ong	Electrical and Electronics Engineering Institute University of the Philippine Diliman, Quezon City 1101, Philippines Email: darvyong@gmail.com   Mobile: 0927-128-0931	Occupancy Detection and Monitoring Using Bluetooth Low Energy and Android Devices	

EST - 14	Samuel S. Franco, Emie Salamangkit- Mirasol*, Andrew C. Doño, Dionesio C. Pondoc, Jennyrose C. Clemente, Rotsen R. Pasion	Samuel S. Franco	mie Salamangkit- Mirasol	Department of Materials Science and Engineering (Ceramic Engineering Program), College of Engineering, Mariano Marcos State University, City of Batac, Ilocos Norte Email: easm022808@yahoo.com	Physicochemical Characterization of San Nicolas Clay for Improved Ceramic Production	
EST - 15	Maria Ai Kristine P. Tolentino Dharmatov Rahula B. Albanoa Fortunato B. Sevilla III	Maria Ai Kristine P. Tolentino	Maria Ai Kristine P. Tolentino	aResearch Center for the Natural and Applied Sciences bCollege of Science, cThe Graduate School dbalbano@ust.edu.ph University of Santo Tomas, Manila, Philippines 1015	Piezoelectric quartz crystal gas sensor for ethylene based on silver(I)/polymer composite	
EST - 16	Marlon Aguinaldo, Agnes de Asis*, Sean Estrada*, Nina Mae Dela Cruz*	Marlon Aguinaldo	Marlon Aguinaldo	Industrial Technology Development Institute – Department of Science and Technology DOST Compound, Gen. Santos Ave., Bicutan, Taguig City 837- 2071 loc 2188/ aguinaldo_marlon@yahoo.com	Pilot Study on the Development of a Local Candidate Reference Material for Aerobic Plate Count in Flour	
EST - 17	Allan N. Soriano, Ken L. Yamauchi, Marc John M. Duron, and Adonis P. Adornado	Ken L. Yamauchi	Ken L. Yamauchi	School of Chemical, Biological and Materials Engineering, and Sciences, Mapúa University, Manila 1002, Philippines e-mail address: ansoriano@mapua.edu.ph; apadornado@mapua.edu.ph tel.: +63(2) 247-5000 local 3301; direct/fax: +63(2) 527-7021	Prediction of Density, Viscosity, and Refractive Index of Binary Mixtures (Ionic Liquids + Alcohols [Methanol, Ethanol, Propan-1-ol]) using Support Vector Regression	
EST - 18	Jan-Ervin C. Guerrero, Christian D. Laurio, Elyson Keith Encarnacion	Jan-Ervin C. Guerrero	Jan-Ervin C. Guerrero	Department of Science and Technology, Industrial Technology Development Institute, Taguig City janguerrero@ymail.com; Tel/fax no. 837- 2071 local 2197	Preparation and Characterization of Lead in water In- house reference material	

EST - 19	Lola Domnina B. Pestaño*1,2,a,e, Patricia Janelle D. Ferrer1,b, Vanessa Ferl A. Quilinguen1,c and Jeremiah T. Rosario1,d	Lola Domnina B. Pestaño	Lola Domnina B. Pestaño	1Department of Chemical Engineering, University of Santo Tomas, España, City of Manila 1008 Metro Manila, Philippines albpestano@ust.edu.ph, bpatricia_62594@yahoo.com.ph, cvanessa.quilinguen@gmail.com, djeremiah.t.rosario@gmail.com Tel. nos.: e(+632) 406 1611 ext. 8517, 4041 09178667496	Process Design of Virgin Coconut Oil (VCO) Production Using Low-Pressure Oil Extraction	
EST - 20	Khrisha Varilla1, Gino Apollo Guerrero1, Ramon Razal2 and Ronniel Manalo2*	Khrisha Varilla	Ronniel Manalo	1Department of Chemical Engineering, College of Engineering and Agro-industrial Technology, University of the Philippines Los Baños 2Department of Forest Products and Paper Science, College of Forestry and Natural Resources, University of the Philippines Los Baños Phone: +(63)-(49)-536-3432 / email: rdmanalo@up.edu.ph	Production and Characterization of Cellulose Nanocrystals from Ceiba pentandra (L.) Gaertn.	
EST - 21	Andrew C. Doño, Rinlee Butch M. Cervera	Andrew C. Doño	Andrew C. Doño	1Department of Materials Science and Engineering, College of Engineering, Mariano Marcos State University, City of Batac, 2906 Ilocos Norte 2Department of Mining, Metallurgical, and Materials Engineering, University of the Philippines, Diliman, Quezon City 1101 eyoda.andrew@yahoo.com	Solid State Synthesis of Bulk Lithium Lanthanum Titanate Lithium Ion Conducting Solid Electrolyte	

EST - 22	Kyle Pierre R. Israela, Jeannette A. Avellanob, Carl Earvin D. Caradab, Ma. Ericha V. Montecillob, Romel U. Brionesc, Cristino L. Tiburan, Jrd, Nathaniel C. Bantayand	Kyle Pierre R. Israela	Kyle Pierre R. Israela	aGraduate School, University of the Philippine Los Baños – College, Laguna (email: kylixisrael@gmail.com , krisrael@up.edu.ph; Tel. no: (049) 536 - 2577) b Land Use Change and Impacts on Watersheds of Large Urban Lakes cBatangas State University – Lobo, Batangas dInstitute of Renewable Natural Resources, University of the Philippines Los Baños – College, Laguna	SWAT Modeling of Steamflow and Rainfall of Three Ungauged Watersheds in Mount Makiling Forest Reserve	
EST - 23	Rose Anne Acedera*, Luigi Dahonog, Charles Lois Flores, Alloyssius E.G. B. Gorospe and Mary Donnabelle Balela			Sustainable Electronic Materials Group, Department of Mining, Metallurgical and Materials Engineering, University of the Philippines Diliman, Quezon City, Philippines 1101 *Phone: +(63)-(2)-981-8500 loc. 3171 / email: roseanneacedera@gmail.com	Synthesis and Characterization of Transition Metals and Metal Oxides as Potential Electrocatalysts for Hydrogen and Oxygen Evolution Reaction	
EST - 24	Cristina Tiangco , Abhay Andar , Fortunato Sevilla III , Govind Rao and Leah Tolosa	Cristina Tiangco	Cristina Tiangco	1Center for Advanced Sensor Technology, University of Maryland Baltimore County, Baltimore, MD, 21250 2Department of Chemical, Biochemical and Environmental Engineering, University of Maryland Baltimore County, Baltimore, MD, 21250 3Department of Chemical Engineering, 4Research Center for the Natural and Applied Sciences, UST, Espana Boulevard, 1015, Manila, PhilippinesEmail address: cetiangco@ust.edu.ph	The use of microneedles on Glucose Binding Protein-based fiber optic biosensor on monitoring transdermal glucose	
EST - 25	Emie Salamangkit-Mirasol and Levie John N. Bulong	Emie Salamangkit-Mirasol	Emie Salamangkit-Mirasol	Department of Materials Science and Engineering, College of Engineering, Mariano Marcos State University, City of Batac, Ilocos Norte Email: easm022808@yahoo.com	Utilization of Rice Hull Silica as Filler in Ceramic Body Formulations	