

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 | |

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|----------|--|-------------------------|-----------------------|---|---|--|
| 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 ¹ , Eduardo C. Atayde Jr.1, Menandro C. Marquez ² , Susan D. Arco* ¹ | 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) | |

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| 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 | |

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| 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 | |

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| 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 | |

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| 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 | |