



**CONGRESO
DE INGENIERÍA, CIENCIA
Y GESTIÓN AMBIENTAL
AMICA**



**5th International
Conference
of Greening
of Industry
Network**



**28, 29 y 30 de octubre de 2019
Instituto de Ingeniería de la UNAM
Ciudad de México**



**UNIVERSITY
OF TWENTE.**

Walmart
México y Centroamérica



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TUESDAY 29 OCTOBER
PARALLEL SESSIONS

10:20 – 13:00	CIRCULAR ECONOMY Conference Room. Engineering Tower. North Wing	CLIMATE CHANGE Auditorium José Luis Sánchez Bribiesca. Engineering Tower.	LIFE CYCLE ANALYSIS Seminar Room Rosenblueth. Building 1 Institute of Engineering	WASTE Room 1. Engineering Tower
10:20 - 10:40	<p>ID 484 "Obtaining biofuels for recovery and disposal of sargassum-natans waste deposited on Mexican beaches" <u>Valeria Estrada Rodríguez y Mendoza Pérez Jorge Alberto</u> <i>University of Guadalajara, Mexico.</i></p>	<p>ID 483 "Evaluation of the carbon footprint in rural housing of the Huasteca Potosina" <u>Jorge Aguillón Robles, Gerardo Javier Arista González, José Adán Espuna Mujica, Víctor Manuel García Izaguirre</u> <i>Autonomous University of San Luis Potosí, Mexico.</i></p>	<p>ID 510 "Opportunities for Implementation of Life Cycle Assessment(LCA) In housing buildings in Colombia" <u>Susan Liliana Rodríguez Murcia y Paulo Andrés Romero Larrahondo</u> <i>National University of Colombia, Colombia.</i></p>	<p>ID 494 "Presence of micro-hydrocarbon plastics on a Mexican beach" <u>Margarita Beltrán Villavicencio, Juan Carlos Álvarez Zeferino, Alethia Vázquez Morillas, Nayely Mendoza-Muñoz</u> <i>Autonomous Metropolitan University, Mexico.</i></p>
10:40 - 11:00	<p>ID 485 " Recycling of LED technology, and the environmental benefits" <u>Alejandro Rodríguez Mendoza y Georgina Fernández Villagómez</u> <i>HYS Asociados, Mexico.</i></p>	<p>ID 556 "Evaluating the implications of climate change and change in land use for runoff in the upper river basin Bogotá, Colombia, using hydrological models" <u>Eliana Torres Peralta, Aldo I. Ramírez, José Luis Del Castillo, Lina Serrano, Derek Vollmer, Natalia Acero</u> <i>Monterrey Institute of Technology and Higher Education, Mexico.</i></p>	<p>ID 515 "Impacts associated with the production of ground coffee" <u>María del Rosario León Lira, Mario Rafael Giraldi Díaz, Lorena De Medina Salas, Eduardo Castillo González</u> <i>Veracruzana University, Mexico.</i></p>	<p>ID 632 "Integrated Management of Hazardous Waste from an Education Institution Superior" <u>Berenice Evia López, José Aurelio Sosa Oliver, José Ramón Laines Canepa, Guadalupe Hernández Gerónimo</u> <i>Juárez Autonomous University of Tabasco, Mexico.</i></p>
11:00 - 11:20	<p>ID 492 "Bagasse, Sugar cane liquor and ash of sugar cane, an alternative in the the creation of efficient and sustainable substrates" <u>Vanessa Natalie Orta Guzmán, Ángeles Iveth Licona Aguilar, Aidé Minerva Torres Huerta, Jorge Aurelio Lois Correa, Miguel Antonio Domínguez Crespo, Ana Bertha López Oyama</u> <i>National Polytechnic Institute, Mexico.</i></p>	<p>ID 561 "Simulation thermal and energetic dwellings of interest of a social type isolated in the Mexican Caribbean" <u>Consuelo Ruiz Cárdenas, Fernando Rodríguez Fonseca, Fredy Alexander Alvarado Alvarado</u> <i>Pedagogical and Technological University of Colombia, Colombia.</i></p>	<p>ID 564 "Evaluating green chemical strategies: life cycle analysis of an ingredient for skin care" <u>Alejandro Juan Álvarez Guerra y Vianca Vanessa Madrid Brañes</u> <i>The National Autonomous University of Mexico, Mexico.</i></p>	<p>ID 637 "Evaluation of the removal of microorganism indicators and pathogens by thermal pre-treatment and thermophilic anaerobic digestion of sludge from a municipal drainage treatment plant" <u>Aarón Flores Ramírez, Adalberto Noyola Robles</u> <i>National Polytechnic Institute, Mexico.</i></p>
11:20 - 11:40	<p>ID 500 "Bioconversion of agro-industrial residues from sugar cane into mixed corn-bagasse flour for making tortillas, and derivatives with nutraceutical properties" <u>Diana Isis, Jorge Aurelio Lois Correa, Miguel Antonio Domínguez Crespo, María Elena Sánchez Pardo, Aidé Minerva Torres Huerta</u> <i>IPN-CICATA-U. ALTAMIRA, Mexico.</i></p>	<p>ID 562 "Generation of climate change scenarios for geographical regions and non-homogeneous databases used to support effective decision-making" <u>José Luis Del Castillo Castillo, Aldo I. Ramírez, Eliana Torres Peralta, Lina Serrano, Natalia Acero, Maira Bezerra</u> <i>Monterrey Institute of Technology and Higher Education, Mexico.</i></p>	<p>ID 573 "Assessment of environmental impacts associated with the valorization of corn stubble to obtain an edible fungus through LCA" <u>Luis Fernando Rivera Báez, Mario Rafael Giraldi Díaz, Lorena De Medina Salas, Eduardo Castillo González</u> <i>University of Veracruz, Mexico.</i></p>	<p>ID 560 "Effect of operational parameters and substrate composition on fermentation pathway in a pilot scale food waste fermenter" <u>Rosalinda Campuzano Ángeles, Oscar Armando Monroy Hermosillo, Betzabeth Arellano-García, Alejandro Ferreira-Rolón</u> <i>The Metropolitan Autonomous University, Mexico.</i></p>
11:40 - 12:00	<p>ID 551 "Cost analysis for combustion of rice husk in a fluidized bed combustion"</p>	<p>ID 583 "Virtual Management Plan for Conversion"</p>	<p>ID 589 "Life cycle assessment of an organic wastes biorefinery as a tool to evaluate circular economy"</p>	<p>ID 566 "The influence of marine currents in the distribution of nutrients and the arrival of</p>

	<p><u>Silu Bhochhibhoya</u>, Ramesh Kumar Maskey, Otto During</p> <p><i>University of Twente, The Netherlands.</i></p>	<p><u>Gerardo Javier Arista González</u></p> <p><i>The Autonomous University of San Luis Potosí, Mexico.</i></p>	<p><u>Santiago Rodríguez Valderrama</u>, Leonor Patricia Güereca, Pasiano Rivas García, Carlos Escamilla Alvarado, María Guadalupe Paredes Figueroa, Jean-Pierre Magnin</p> <p><i>The Autonomous University of Nuevo León, Mexico.</i></p>	<p>sargasso in the Arrecife de Puerto Morelos National Park"</p> <p><u>Saray García Gómez</u>, Melissa Lugardo Añorve</p> <p><i>Universidad del Caribe, Mexico.</i></p>
12:00 - 12:20	<p>ID 604 "The ecosystem-related efficiency of resource use in assessment of the sustainability of bio-based products"</p> <p><u>Janusz Golaszewski</u>, Ewelina Olba-Ziety, Anna Karwowska</p> <p><i>University of Warmia and Mazury in Olsztyn, Poland.</i></p>	<p>ID 618 "Estimation of methane emission from cattle methane in the Mexican tropics using IPCC methodology TIER 2"</p> <p><u>Adriana Rivera Huerta</u>, Leonor Patricia Güereca, María de La Salud Rubio Lozano</p> <p><i>The National Autonomous University of Mexico, Mexico.</i></p>	<p>ID 602 "Comparative study of a residential building to determine the environmental impacts in the construction stage"</p> <p>Irais Fuentes Colin y Rocío Sánchez Pérez</p> <p><i>Mexican Center for Cleaner Production IPN, Mexico.</i></p>	<p>ID 598 "Influence of substrate/substance ratio on methane production in FORSU anaerobic digestion"</p> <p><u>María Del Mar Ossa Arias</u>, Mario Francisco Castellón Zelaya, Simón González Martínez</p> <p><i>The National Autonomous University of Mexico, Mexico.</i></p>
12:20 - 12:40	<p>ID 616 "Mapping Indonesian's transition towards a circular economy"</p> <p><u>Juli Nurdiana</u>, María-Laura Franco-García, Michiel Heldeweg</p> <p><i>University of Twente, the Netherlands</i></p>	<p>ID 652 "Measurement of the Carbon Footprint of an Educational Institution of higher level"</p> <p><u>Edgar Eduardo Gómez Arellano</u>, Miguel Mauricio Aguilera Flores, Verónica Ávila Vázquez</p> <p><i>The National Polytechnic Institute, México.</i></p>	<p>ID 700 "Life cycle assessment of electric vehicles and busses in Brazil: effects of local manufacturing, mass reduction and performance evolution"</p> <p>Jorge Enrique Velandia Vargas</p> <p><i>The University of Campinas</i></p>	<p>ID 603 "Fermentation with mixed crops of the organic fraction of urban solid waste"</p> <p><u>German Dimitriv Jojoa Unigarro</u>, Simón González Martínez</p> <p><i>The National Autonomous University of Mexico, México.</i></p>
12:40 - 13:00	<p>ID 617 "A? New lens on? scenarios to shape the future of Indonesian's first circular city"</p> <p><u>Juli Nurdiana</u>, María-Laura Franco-García, Michiel Heldeweg</p> <p><i>University of Twente, the Netherlands</i></p>			
14:10 – 16:10	<p>LIFE CYCLE ANALYSIS Conference Room Engineering Tower. North Wing</p>	<p>AIR AND SOIL Auditorio José Luis Sánchez Bribiesca Engineering Tower</p>	<p>CIRCULAR ECONOMY Seminar Hall. Rosenblueth. Building 1 Institute of Engineering</p>	<p>WASTE Hall 1. Engineering Tower</p>
14:10 - 14:30	<p>ID 545 "Life cycle assessment of tiny houses in the Netherlands"</p> <p>Silu Bhochhibhoya</p> <p><i>University of Twente, the Netherlands</i></p>	<p>ID 490 "Determination of heavy metals in suspended particles (PM10 and PM2.5) in a coastal city in the Gulf of Mexico"</p> <p>Alberto Espinosa, Jaime Rendón, Raúl Quintana, Jimmy Vidals</p> <p><i>he Autonomous University of Campeche, México.</i></p>	<p>ID 506 "Nanostructures of tin, zinc, and nickel produced from wastewater in electrocoagulation process"</p> <p>Víctor Alfredo Nolasco Arizmendi, Rodolfo Salas Cepeda</p> <p><i>The Technological University of Tula-Tepeji, México.</i></p>	<p>ID 614 "Dry anaerobic co – fermentation of organic fraction of municipal solid waste and cow manure"</p> <p>Mario Francisco Castellón Zelay y Simón González Martínez</p> <p><i>The National Autonomous University of Mexico., México.</i></p>
14:30 - 14:50	<p>ID 649 "LCA of innovative man-made cellulose textile fibre"</p> <p><u>Ana Martha Coutiño</u> y Marta Lopes</p>	<p>ID 552 "Metals (Cu, Ni, Li, V and Zn) in urban powders from Cancun, Quintana Roo, Mexico"</p> <p><u>Mara Flores Moreno</u>, Denisse Guadalupe Sánchez Toriz, Cinthia Berenice Pech</p>	<p>ID 516 "Use of untempered hydrocarbons for the preparation of asphalt mixtures with dense granulometry"</p> <p>Liliana Hernández Acosta, Sergio Ramos Herrera, Verónica Isidra Domínguez Rodríguez, Randy Howard Adams Schroeder</p>	<p>ID 629 "Identification of viable but not cultivable status of E. coli and Salmonella spp. in biosolids obtained by heat pre-treatment and anaerobic digestion"</p> <p>Jesús Ortega Cuenca, Aarón Flores Ramírez, Daniel de los Cobos-Vasconcelos, Adalberto Noyola Robles</p>

	<i>RISE Research Institutes of Sweden</i>	Perera, Jairo Arturo Ayala Godoy, Laura Margarita Hernández Terrones <i>Universidad del Caribe, México.</i>	<i>Juárez Autonomous University of Tabasco, México.</i>	<i>The National Autonomous University of Mexico, México.</i>
14:50 - 15:10	PECHAKUCHA SESSION (Water Themes, Life Cycle Analysis, Circular Economy and Soil) 14:50 A 16:00 Conference Room. Engineering Tower. North Wing	ID 495 "Phyto-toxicity of a soil restored by surface-washing technology" <u>Margarita Beltrán Villavicencio</u> , Angela Lilian Padilla Santana, María Berenice Guadalupe Quintana Díaz, Israel Labastida Núñez, María Aurora Armenta Hernández <i>The Metropolitan Autonomous University, México.</i>	ID 532 "Packaging and its impact on the value chain to circular models" Irma Elizabeth Peñuñuri García <i>UPV The Polytechnic University of Valencia / The University of Monterrey UDEM. España, México.</i>	ID 631 Fugitive emissions in a temporary storage of hazardous waste in an Institution of Higher Education" Guadalupe Hernández Gerónimo, José Aurelio Sosa Oliver, José Ramón Laines Canepa, Esteban Estrada Govea, José Antonio Azamar Barrios, Fabiola Jazmín Jiménez Hernández <i>Juárez Autonomous University of Tabasco, México.</i>
15:10 - 15:30	ID 482, 493, 525, 535, 546, 547, 548, 600, 607, 613, 624	ID 527 "Underground hydrocarbons spills: Low cost mapping by GPR-CSP method" Erick S. Kusnir L <i>The National Autonomous University of Mexico, México.</i>	ID 555 "Evaluation of hydrocarbon's adsorbent capacity using guarumbo (cecropia peltata) biomass" Norma Angélica Oropeza García, Laura Patricia Flores Castillo, Ángel Iván Borge Valle, José Alfonzo Canche Uuh, José Luis Guevara Franco, Ricardo Enrique Vega Azamar <i>The University of Quintana Roo, México.</i>	ID 497 "Marine litter: waste on Mexican beaches" <u>Alethia Vázquez Morillas</u> , Arely Areanely Cruz Salas, Juan Carlos Álvarez Zeferino, Sara Ojeda Benitez <i>The Metropolitan Autonomous University México.</i>
15:30 - 15:50		ID 647 "Review of remediation techniques of soils from sites contaminated by hydrocarbons" Ana Laura Cervantes Nájera, María Concepción Martínez Rodríguez <i>The Metropolitan Autonomous University, México.</i>	ID 621 "Study of the behaviour of G42 reinforcing steel embedded in ready-mix concrete with bio-ash" César Sedano de la Rosa <i>The University of Guadalajara, México.</i>	ID 498 "Environmental claims on plastic bags" <u>Alethia Vázquez Morillas</u> , Rosa María Espinosa Valdemar, Juan Carlos Álvarez Zeferino, Margarita Beltrán Villavicencio, Maribel Velasco Pérez <i>The Metropolitan Autonomous University, México.</i>
15:50 - 16:10		ID 639 "Analysis of atmospheric sulphur deposits during the dry season in Guayaquil - Ecuador" Olga Quevedo, M. Calderón, D. Calle y G. Montañó <i>University of Guayaquil, Ecuador.</i>	ID 640 "Physico-chemical characteristics of vermicompost of non-conventional wastes for use in agriculture" Adriana Ruiz Álvarez, Israel Ávila Lázaro, José Ramón Laines Canepa, Víctor Manuel Villegas Cornelio, Mayra Cristell Pérez Ramírez <i>Juárez Autonomous University of Tabasco, México.</i>	