

Exposition of themes



VITAL ENGINEERING

Title	Authors
Mathematical model for the tactical planning of the Supply Chain of Supplementary Cementitious Materials	Camila Camacho, Germán Álvarez and Juan G. Villegas R.
EMISSIONS OF CRITERIA POLLUTANTS AND GREENHOUSE GASSES FROM MOBILE SOURCES IN THREE MAIN STREETS OF AN INTERMEDIATE CITY IN COLOMBIA.	Uriah Aron Bush Felipe, Alex Andres Murillo Villamizar, Jose Luis Rodriguez Castilla, Luis Carlos Díaz Muegue and Luis Carlos Angulo Argote
A Mixed Integer Linear Programming Model for Facility Location in Disaster Relief Operations Using Georeferenced Data	Kevin Rafael Palomino Pacheco, Carmen Berdugo Correa and David Garcia Barrios
CATESID: Software for identifying alluvial gold mining areas, their characteristic coverages, and their multitemporal analysis.	Maura Melissa Herrera, Fabio de Jesús Vélez Macías, David Stephen Fernández and Néstor Aguirre
Analysis of Eichhornia crassipes root-associated protists and their relationship to the flood pulse.	Valeria Naranjo Morales, Nestor Jaime Aguirre Ramirez, Juan Pablo Serna Lopez, Fabio De Jesus Velez Macias and David Stephen Fernandez Mc Cann
Variation of organic matter and aquatic macroinvertebrates associated with Eichhornia crassipes roots with flood pulse.	Melanie Vallejo Checa, Juan Pablo Serna López, Néstor Jaime Aguirre Ramírez, Fabio Vélez and David Fernández
Transformation of monoterpenes through one-pot pathways over heterogeneous catalysts	Luis A. Gallego-Villada and Edwin Alarcon
Analysis of Sustainability of Nopol Catalytic Production Using Non-Wood Forestry Biomass	Saleth David Causil Durango and Aida Luz Villa Holguín
Bioengineering of Structured Lipids Microencapsulated as an Alternative of Healthy Oil	Angie Vanessa Caicedo Paz, Julian Paul Martinez, Marta Beatriz Mediavilla Quintero and Aída Luz Villa
Social and environmental contributions to floriculture in the hydrangea sector through a life cycle assessment approach	María Alejandra González, Mariluz Betancur, Cindy Natalia Arenas, Juliana Miranda, José Adrián Ríos, Nicolás Fernando Molina, Juliana Quintero and Jaime Botero
Life cycle analysis of a perovskite photovoltaic mini-module developed in Colombia with a p-i-n meso-superstructured configuration.	Camilo Valderrama, Francisco Molina, Aida Villa, Diana Rodríguez, Jaime Becerra and Juan Montoya
Numerical study of microwave hyperthermia for the treatment of breast cancer.	Gabriel Jaime Cardona Osorio, Bryan Rodriguez, Waira Murillo and Marcela Mercado Montoya
Automated semantic annotator for information retrieval, based on biomedical ontologies	Josue Santiago Cano-Pulgarin, Fernando Mora-Ángel, Mónica Pineda-Gaviria, Jesenia Avendaño-Ramírez and Astrid Duque-Ramos
Biotribological behavior of Ti6Al4V alloy fabricated by EBM and subsequently anodized	Angie Ramírez, Alexander Zuleta, Camila Zapata, Carlos Vargas, Adrián Tamayo, Libia Baena, Juan Guillermo Castaño, Carlos Botero, Alejandro Zuleta, Nicolás Bedoya, Enrique Quiceno and Maryory Gómez
Carbon quantum dots and Acetylcholinesterase- based fluorescent biosensor for pesticide detection in waters.	Maria Isabel Gaviria Arroyave, Juan Pablo Arango, Kaory Barrientos, Juan Bernardo Cano and Gustavo Antonio Peñuela Mesa
Car fleet growth model in Medellín city: Exploratory review the implementation of public policies for the transportation demand management based on the restriction due to the use of plates and scrapping	José Alejandro Zapata Celis, Yony Fernando Ceballos and Julián Andrés Castillo Grisales
Insights and research in materials used to decrease noise pollution: developments for Colombia	Jeiser Rendon, Carlos H. C. Giraldo and Henry A. Colorado