



EGTEIC

Environment,
Green Technology
and Engineering

International Conference

SCIENTIFIC PROGRAMME

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GENERAL SCIENTIFIC PROGRAMME

Monday, 18th of June 2018

17:00	Registration
18:00	Welcoming reception by: Santiago Fernández Rodríguez (chairman of the conference) Ramón Sanguino Galván (Cochairman of the Conference) Pedro Muñoz Barco , Environment General Director, Government of Extremadura Juan Carlos Preciado Rodríguez , Vice-dean for Quality, University of Extremadura Pablo García Rodríguez , Dean of the Polytechnic School of Cáceres, University of Extremadura Venue: Generala of Cáceres, Plaza de Caldereros, 2, 10003 Cáceres
19:00	Welcome cocktail Venue: Generala of Cáceres, Plaza de Caldereros, 2, 10003 Cáceres
20:00	Walking tour

Tuesday, 19th June 2018

9:00-17:30	Registration
9:15-9:30	Opening session by: Santiago Fernández Rodríguez (chairman of the conference) Ramón Sanguino Galván (Cochairman of the Conference) Pedro Muñoz Barco , Environment General Director, Government of Extremadura Montaña Jimenez Espada , Delegate Councilor for the Environment, Strategic Infrastructures and Public Services, Cáceres City Council Pablo Garcia Rodriguez , Dean of the Polytechnic School of Cáceres Jose Maria Conejero Manzano , University of Extremadura
9:30-11:30	Oral communications I
11:30-13:00	Coffee Break & Poster session I
13:00-14:30	Oral communications II
14:30-16:00	Lunch
16:00-17:30	Oral communications III
21:00	Conference dinner NH Palacio de Oquendo, Location: Plaza de San Juan 11, 10003 Cáceres

Wednesday, 20th of June 2018

9:00-13:45	Registration
9:00-11:30	Oral communications IV
11:30-12:30	Coffee Break & Poster session II

12:30-14:30	Oral communications V
14:30-15:00	Closing Remarks and Announcement of award for best communication by Santiago Fernández Rodríguez, PhD. (chairman of the conference), Ramón Sanguino Galván, PhD. (cochairman of the conference), and Ms. Monica Martins , Conference Manager, CEO & Founder Theorem Conferences
15:00	Lunch (delivery of lunch tickets)

DETAILED SCIENTIFIC PROGRAMME

TUESDAY, 19th JUNE 2018

9:00-17:00	Registration
9:15-9:30	<p>Opening session by:</p> <p>Santiago Fernández Rodríguez (chairman of the conference)</p> <p>Ramón Sanguino Galván (Cochairman of the Conference)</p> <p>Pedro Muñoz Barco, Environment General Director, Government of Extremadura</p> <p>Montaña Jimenez Espada, Delegate Councilor for the Environment, Strategic Infrastructures and Public Services, Cáceres City Council</p> <p>Pablo Garcia Rodriguez, Dean of the Polytechnic School of Caceres</p> <p>Jose Maria Conejero Manzano, University of Extremadura</p> <p>Location: Main Conference room</p>
9:30-11:30	<p>Oral communications I. Room A1</p> <p>Green Roofs for Energy Efficiency and Smart Food Production to Sustainability João Galvão, Marco Almeida, Rita Ascenso, Vânia Ribeiro Polytechnic Institute of Leiria, Portugal</p> <p>Real Time Water Quality Monitoring Boat Moez ul Hassan, Sanjay Kumar, Hitesh Kumar, Kabir Kumar, Kiran Fatima, Sarmad Hameed SZABIST, Pakistan</p> <p>Portable analytical systems for field voltammetric copper monitoring in atmospheric samples around impacted industrial areas Eduardo, Pinilla-Gil, Fernando, Rueda-Holgado, Lorenzo, Calvo-Blázquez, Francisco, Cereceda-Balic University of Extremadura, Spain</p> <p>World Population Growth and Demographic Shifts: Challenges To Global and Urban Sustainability Frederic R. Siegel, George Washington University, U.S.A.</p>

	<p>Dynamic spatial modeling of optimal locations for territorial planning ordering of the industrial waste in a mining city Marcelo Pérez Contreras, Rodrigo Estay Huidobro, Víctor Encina Montenegro Federico Santa María Technical University, Chile</p> <p>Removal of diclofenac and metformin from water in laboratory photo reactor Anita Leovac Maćerak, Đurđ, Kerkez, Milena Bečelić-Tomin, Dragana Tomašević Pilipović, Aleksandra Kulić, Jovana Jokić, Božo Dalmacija University of Novi Sad, Serbia</p>
11:30-13:00	Coffee Break & Poster session I
13:00-14:30	Oral communications II. Room A1
	<p>Modeling of salt quality by using extreme learning machine Erdal Karadurmuş, Eda Göz, Ozan Atılğan Hitit University, Turkey</p> <p>Mathematical modeling of vegetation heterogeneity and complex topography effects on turbulent exchange of GHG within the atmospheric surface layer Iuliia Mukhartova, Alexander Krupenko, Polina Mangura, Alexander Olchev M.V. Lomonosov Moscow State University, Russia</p> <p>Heavy metals removal from reclaimed water in a laboratory column using a granitic residual soil Flora Silva, António Albuquerque, Victor Cavaleiro, António Carvalho, Paulo Scalize Polytechnic Institute of Bragança, Portugal</p> <p>Spearman correlation between the NDVI and Quercus airborne pollen in the SW of the Iberian Peninsula Rocío González-Naharro, Elia Quirós, Santiago Fernández-Rodríguez, Inmaculada Silva-Palacios, Rafael Tormo-Molina, José María Maya-Manzano, Alejandro Monroy-Colin, Raúl Pecero-Casimiro, Ángela Gonzalo-Garijo University of Extremadura, Spain</p> <p>Removal of As (III) from water using “green” synthesized zero valent iron in the presence of competing phosphate ions Đurđa Kerkez, Anita Leovac Maćerak, Milena Bečelić-Tomin, Dragana Tomašević Pilipović, Jovana Jokić, Nataša Slijepčević, Božo Dalmacija University of Novi Sad, Serbia</p>

14:30-16:00	Lunch
16:00-17:30	<p>Oral communications III. Room A1</p> <p>Promotion of Circular Economy: steelwork dusts as secondary raw material in conventional mortars Angélica Lozano Lunar, Auxiliadora Barbudo Muñoz, José María Fernández Rodríguez, José Ramón Jiménez Romero University of Cordoba, Spain</p> <p>Second Law Analysis of Atmosphere Controlled Heat Treatment Furnace Gülay Ahu Turgutlu, Ali Yurddaş, Anıl Başaran Manisa Celal Bayar University, Turkey</p> <p>Modeling and mitigation of noise on the A23 motorway using GIS António Carvalho, Victor Cavaleiro, António Albuquerque, Flora Silva Polytechnic Institute of Bragança, Portugal</p> <p>Evaluation of incineration potential of municipal solid wastes in İzmir province as renewable energy source according to R1 energy efficiency Anıl, Başaran Manisa Celal Bayar University, Turkey</p> <p>Directional statistics in solar potential of rooftops at three different neighbourhoods of a medium size city María-Eugenia Polo, Mar Pozo, Elia Quirós University of Extremadura, Spain</p> <p>Small and Micro-hydropower Plants Location by Using Geographic Information System Eva Gómez-Llanos, Pablo Durán-Barroso, Juana Arias-Trujillo, José M. Ceballos-Martínez, Jesús A. Torrecillas-Pinero, Carlos Urueña-Fernández, Miguel Candel-Pérez University of Extremadura, Spain</p>
21:00	<p>Conference dinner Location: NH Palacio de Oquendo, Plaza de San Juan 11, 10003 Cáceres</p>

Oral communications (15 minutes for presentation + 5 minutes for questions)

WEDNESDAY, 20th OF JUNE 2018	
9:00-14:10	Registration
9:00-11:30	<p>Oral communications IV. Room A1</p> <p>Catalogue of pavements and work units with recycled aggregates from construction and demolition waste Auxi Barbudo, Jose Ramón Jiménez, Jesús Ayuso, Adela P. Galvín, Francisco Agrela</p>

	<p>University of Cordoba, Spain</p> <p>Accuracy enhancement of land cover classification using LiDAR and multitemporal Sentinel 2 images in forested watersheds Laura Frago Campón, Elia Quirós Rosado, Julian Mora Aliseda, José Antonio Gutiérrez Gallego, Pablo Durán Barroso University of Extremadura, Spain</p> <p>Recycling of rainwater in a social and cultural center Sofia Abrantes, Flora Silva, António Albuquerque Polytechnic Institute of Bragança, Portugal</p> <p>Removal of basic red 2 dye (BR2) from wastewater using Khulays natural bentonite Saad Al-Shahrani King Abdulaziz University, Saudi Arabia</p> <p>How could Competitive Intelligence help to minimize environmental risks hazards? Miguel Candel-Pérez, Carmen Calvo-Jurado University of Extremadura, Spain</p>
11:30-12:30	Coffee Break & Poster session II
12:30-14:30	<p>Oral communications V. Room A1</p> <p>Noise and air pollution related to health in urban environments David Montes, Juan Miguel Barrigón, Pedro Atanasio, Guillermo Rey, Rosendo Vílchez University of Extremadura, Spain</p> <p>Wireless Sensor Network for sustainable agriculture Carlos Diego Moreno Moreno, María Brox Jiménez, Andrés Alejandro Gersnoviez Milla, Mariano Márquez Moyano, Manuel Agustín Ortiz López, Francisco Javier Quiles Latorre University of Cordoba, Spain</p> <p>Global perception of urban environments by the introduction of natural sounds Pedro Atanasio, Juan Miguel Barrigón, Guillermo Rey, David Montes, Rosendo Vílchez University of Extremadura, Spain</p> <p>Surface modification of aluminium oxide (AL₂O₃) nanoparticles on detection of crude oil production Mohd Zulkifli Mohamad Noor, Najaatul Aimi Sollahunddin, Sonny Irawan Universiti Malaysia Pahang, Malaysia</p>

	<p>Consequence modelling for estimating the toxic material dispersion using ALOHA: case studies at two difference chemical plants Azizan Ramli, Nurhaniza Abdul Hamid, Norfaridah Abdul Ghani Mohd Zahid Universiti Malaysia Pahang, Malaysia</p> <p>Hydropower potential assessment in water supply systems Eva Gómez-Llanos, Pablo Durán-Barroso, Juana Arias-Trujillo, José M. Ceballos-Martínez, Jesús A. Torrecilla-Pinero, Carlos Urueña-Fernández, Miguel Candel-Pérez University of Extremadura, Spain</p>
14:30-15:00	<p>Closing Remarks and Announcement of award for best communication by Santiago Fernández Rodriguez, PhD. (chairman of the conference), Ramón Sanguino Galván, PhD. (cochairman of the conference), and Ms. Monica Martins, Conference Manager, CEO & Founder Theorem Conferences</p>
15:00	Lunch (delivery of lunch tickets)

Oral communications (15 minutes for presentation + 5 minutes for questions)

POSTERS SESSION I

Poster EGTEIC01: Study on chlorinated gas adsorption using activated carbon via polyvinyl chloride (PVC) stepwise pyrolysis process

Settakorn Upasen, Hataichanok Krimongkol, Kitiwan Sae-Jiw
Burapha University, Thailand

Poster EGTEIC02: Macroscopic spray characteristics and combustion behavior of diesel fuel and palm vegetable oil, in an emulsion burner

Julio San José, Ascensión Sanz-Tejedor, Yolanda Arroyo
University of Valladolid, Spain

Poster EGTEIC03: Anthropogenic Activities and Water Quality: A case of River Satluj, Pakistan

Adnan Ahmad Qazi, Prof Dr Muhammad Ali Shah, Rehana Iqbal, Farhat Jabeen, Dr Kausar Malik
Government College University Faisalabad, Pakistan

Poster EGTEIC04: Exhalation rate study of thoron in some building materials of the Iberian Peninsula

S. Frutos-Puerto, E. Pinilla-Gil, C. Miró, E. Andrade, M. Reis, M.J. Madruga
University of Extremadura, Spain

Poster EGTEIC05: Biodegradation of 5-(hydroxymethyl)-furfural and furan derivatives

M. Isabel Igeño, Rubén Sánchez, Ana Belén Gómez,
M. Isabel Guijo, Faustino Merchán, Rafael Blasco
University of Extremadura, Spain

Poster EGTEIC06: Histological study of lavatera maritima in the region of rachgoun (Ain temouchent)

Ghalem Sarra, Hassani Faiçal, Bouayad Ibtissam Sarah
University of Tlemcen, Algeria

Poster EGTEIC07: Study of siderurgy slags for the reuse of iron oxides for biotechnology application

Diogo Teixeira Moreira, Arno Heeren de Oliveira,
Adriana de Souza Medeiros Batista
Federal University Minas Gerais, Brazil

Poster EGTEIC08: ACV and the contribution to green growth

João Galvão, Yadyra Gonzalez, Hermano Manzano,
Filipe Oliveira
Polytechnic Institute of Leiria, Portugal

Poster EGTEIC09: Recommendations for the management of Construction and Demolition Waste

Auxi Barbudo, Jesús Ayuso, Angélica Lozano, Manuel Cabrera, Antonio López-Uceda
University of Cordoba, Spain

Poster EGTEIC10: Determination of trace elements in atmospheric samples by ultrasonic probe microextraction and ICP-MS

Selena Carretero Peña, M. Rosario Palomo Marín,
Fernando Rueda Holgado, Lorenzo Calvo Blázquez,
Eduardo Pinilla Gil
University of Extremadura, Spain

Poster EGTEIC11: Removal of Oxytetracycline (OTC) from aqueous solution using rice biomass as an adsorbent

Christhel Andrade Diaz, Nelson S. Oliveira, Judite S. Vieira, Joan M. Rodríguez-Díaz
Polytecnic Institute of Leiria, Portugal

Poster EGTEIC12: Inhibition of methane fermentation by antibiotics introduced to municipal anaerobic sludge

Paulna Rusanowska, Marcin Zieliński, Marcin Dębowski, Monika Harnisz, Ewa Korzeniewska, Ewa Amenda

University of Warmia and Mazury in Olsztyn, Poland

Poster EGTEIC12: Testing the supplementary cementitious material based on various ratios of GGBFS and zeolite

Marek Kováč, Alena Sičáková, Matej Špak
Technical University of Košice, Slovakia

Poster EGTEIC13: Natural Mexican Zeolite Modified with Iron to Remove Arsenic Ions from Water Sources

Maritza Estela Garay-Rodríguez, Mirella Gutiérrez-Arzaluz, Miguel Torres-Rodríguez, Violeta Mugica-Alvarez
Autonomous Metropolitan University, Mexico

Poster EGTEIC14: Pharmaceuticals removal from water by polymerized tannins

Jesús Beltrán de Heredia, Elena Beltrán de Heredia, Angel Gutiérrez Palacios
University of Extremadura, Spain

Poster EGTEIC15: Effect of lighting on the intensification of phycocyanin production in the culture of *Arthrospira platensis*

Dawid Szwarc, Marcin Zieliński
University of Warmia and Mazury in Olsztyn, Poland

Poster EGTEIC16: Two-dimensional shallow-water model with porosity for urban flood modeling

Malika Benslimane, Saâdia Benmamar, André Paquier
University of A/Mira Bejaia, Algeria

Poster EGTEIC17: Feasible use of glass waste electrical and recycled aggregates in cement-treated materials

Manuel Cabrera, Julia Rosales, Auxiliadora Barbudo, Adela P. Galvin, Francisco Agrela
University of Cordoba, Spain

Poster EGTEIC18: Biodegradation of 5-(hydroxymethyl)-furfural and furan derivatives

M. Isabel Igeño, Rubén Sánchez-Clemente, Ana B. Gómez, M. Isabel Guijo, Faustino Merchán, Rafael Blasco
University of Extremadura, Spain

Poster EGTEIC19: The effect of mixing technique, kind of aggregate, and prolonged mixing time on strength characteristics of concrete

Karol Urbán, Alena Sičáková
Technical University of Košice, Slovakia

Poster EGTEIC20: Modelling two dimensional affected regions by “seca” disease with proximity diagrams

Carmen Calvo-Jurado, Miguel Candel-Pérez
University of Extremadura, Spain

Poster EGTEIC21: Method for estimation of CO₂ gains from persons in buildings

Antonio Rodero, Dorota Anna Krawczyk
University of Cordoba, Spain

POSTERS SESSION II

Poster EGTEIC22: Bacterial consortiums able to use metal-cyanide complexes as a nitrogen source

M. Isabel Igeño, Daniel Macías, M. Isabel Guijo, Ruben Sánchez-Clemente, Ana B. Gómez, Faustino Merchán, Rafael Blasco
University of Extremadura, Spain

Poster EGTEIC23: Evaluation of zeolite adsorption properties for Cu(II) removal from acidic aqueous solutions in fixed-bed column system

Marian Holub, Magdalena Balintova, Zdenka Kovacova
Technical University v Košiciach, Slovakia

Poster EGTEIC24: Analysis of an efficiency of the solar collector installation in a small public building in Poland, Lithuania and Spain - a case study

Dorota Anna Krawczyk, Miroslaw Żukowski, Antonio Rodero, Ruta Bilinskiene
Bialystok University of Technology, Poland

Poster EGTEIC25: Application of advanced oxidation processes for the degradation of OTC present in aqueous solutions

Jose M. Giler, Judite S. Vieira, Nelson S. Oliveira, Joan M. Rodríguez-Díaz
Laboratory of Separation and Reaction Engineering (LSRE), Portugal

Poster EGTEIC26: Repeatability of sulphate determination tests on recycled aggregates from construction and demolition waste

Auxi Barbudo Muñoz, Jesús Ayuso Muñoz, Adela Pérez Galvín, Angélica Lozano Lunar, Manuel Cabrera Montenegro
University of Cordoba, Spain

Poster EGTEIC27: Microwave support of alcoholic fermentation process of cyanobacteria *Arthrospira Platensis*

Anna Nowicka, Marcin Zieliński, Marcin Dębowski
Warmia and Mazury University, Poland

Poster EGTEIC28: Characterization of the siderurgy slags as the presence of natural radionuclides

Diogo Teixeira Moreira, Arno Heeren de Oliveira,
Adriana de Souza Medeiros Batista
Federal University of Minas Gerais, Brazil

Poster EGTEIC29: Effects of some geometric parameters in energy-efficient heat distribution of preinsulated double pipes

Dorota Anna Krawczyk, Tomasz Teleszewski
Bialystok University of Technology, Poland

Poster EGTEIC30: Purification of post-fermentation effluent using *Chlorella vulgaris* microalgae

Karolina Szwarc, Dawid Szwarc, Marcin Zieliński
University of Warmia and Mazury Poland

Poster EGTEIC31: Graphene : a new adsorbent for removal organic micropollutants included in Decision 2015/495/EC

Jesús Beltrán de Heredia, Angel Gutiérrez Palacios
University of Extremadura, Spain

Poster EGTEIC32: Cellulose acetate recovery from cigarette butts

María José Arévalo Caballero, María Jesús Benavente, Guadalupe Silvero, Ignacio López-Coca, Valentín Gómez Escobar
University of Extremadura, Spain

Poster EGTEIC33: Microwave heating impact on the effectiveness of oil yield from algae biomass of genus *Botryococcus braunii*

Magdaelna Rokicka, Marcin Zieliński, Marcin Dębowski, Katarzyna Głowacka
University of Warmia and Mazury, Poland

Poster EGTEIC34: Effect of inorganic coagulants on the characteristics in anaerobic digested distillery stillage valorization

Magda Dudek, Paulina Rusanowska, Marcin Zieliński, Marcin Dębowski
Technical University of Košice, Slovakia

Poster EGTEIC35: Ecotoxicological efficiency of primidone solutions under different physicochemical treatments

Ana Lourdes Oropesa, M. Figueredo, M. Checa, P. Palma, E.M. Rodríguez, F.J. Beltrán
University of Extremadura, Spain

Poster EGTEIC36: Environmental impacts of detached family houses used natural building materials

Andrea Monokova, Silvia, Vilčeková, Ľudmila, Mečiarová, Eva, Krídlová Burdová
Technical University of Kosice, Slovak Republic

Poster EGTEIC37: Methodological evaluation of family houses with different thermo-physical parameters of building materials

Andrea Monokova, Silvia Vilčeková, Ľudmila Mečiarová, Eva Krídlová Burdová
Technical University of Kosice, Slovak Republic

Poster EGTEIC38: Control of a Boost Converter to Improve the Performance of a Photovoltaic System in a Microgrid

Oscar Carranza, Miguel Angel Abundis, Jaime Jose Rodriguez, Ruben Ortega, Juan Carlos Tellez
National Polytechnic School, Mexico

Poster EGTEIC39: Power Flow Management in a Wind Generation System using a Dual Feed Induction Generator

Oscar Carranza, Pedro Hernandez, Jaime Jose Rodriguez, Ruben Ortega, Jose Victoriano Chavez
National Polytechnic School, Mexico

Poster EGTEIC40: Study of pH changes in media during bacterial growth of several environmental strains

Rubén Sánchez, María Isabel Igeño, Ana Belén Gómez, María Isabel Guijo, Faustino Merchán, Rafael Blasco
University of Extremadura, Spain

NON-PRESENT PARTICIPATIONS

Global Environmental Issues and Role of Energy Sources in Solving Them

Vladimir Grachev
Center for Global Ecology, Russia

Estimation of physico-chemical and bacteriological quality of Mediterranean Seawater in vicinity of Tangier-Ksar sghir Region, north of Morocco

Imane Bourouhou
Faculty of Sciences and Techniques Tangier,
Morocco

