



Scientific Program



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Welcoming Message

Dear Colleagues,

The 2019 International Conference on Green Energy and Environmental Technology (GEET-19) is organized by academics and researchers belonging to different scientific areas of the University Complutense of Madrid, University Carlos III of Madrid, University of Extremadura and University of las Palmas de Gran Canaria with the technical support of Sciknowledge European Conferences.

This event has the objective of creating an international forum for academics, researchers and scientists from worldwide to discuss worldwide results and proposals regarding to the soundest issues related to Green Energy and Environmental Technologies.

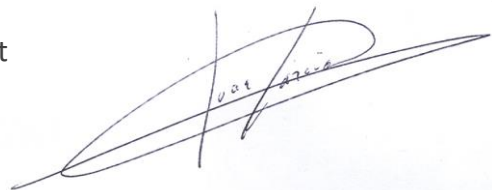
This event will include the participation of renowned keynote speakers, oral presentations, posters sessions and technical conferences related to the topics dealt with in the Scientific Program as well as an attractive social and cultural program.

The papers will be published in the Abstracts E-book of the Conference. Those communications considered of having enough quality can be further considered for publication in International Conference Journals. At the authors' choice, those works not suitable for publication in any of the congress journals will be published in the Extended Abstracts E-book.

To finish, I hope that all of you will enjoy the Conference, and I wish our visitors from abroad will have a very pleasant stay in Paris.

Thank you

Full Professor Dr. Juan García Rodríguez
GEET-19 Chairman
Chemical Engineering and Materials Department
University Complutense of Madrid
Chemical Engineering Department
University Complutense of Madrid, UCM
Spain, UE

A handwritten signature in black ink, appearing to read 'J. García Rodríguez', is written over a light blue rectangular stamp or watermark.

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University Complutense of Madrid, UCM, Spain

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Prof. Marcos Larriba Martínez Ph.D.
Dpto. Ingeniería Química y de Materiales
University Complutense of Madrid

ORAL SESSIONS – GENERAL PROGRAM

Wednesday, 24th July 2019

Schedule	ROOM 2	MAIN ROOM
15:30	Documentation delivery	
16:00 – 16:10	Opening session	
16:10- 17:00		Plenary talk New approach about Rubber Regeneration. From Recycling to Reusing Xavier Colom Fajula, Ph.D. Professor and Coordinator POLQUITEX Research Group at UPC BarcelonaTECH SPAIN
17:00 – 18:00	1. ENERGETIC INSTALLATIONS AND RENEWABLE ENERGIES Electrochemistry for Renewable Fuel: a discussion for best choice F. Kröner, Heliio-Synth e.V, Austria Feasibility Investigation of Floating Solar PV-Hydro Grid-tied Hybrid System: A Case Study of Green Energy Boost in Shan State, Myanmar M. M. Naing, Yangon Technological University, Myanmar Liquid single-electrode triboelectric nanogenerator based on graphene oxide dispersion for wearable electronics Y. Wu, Chinese Academy of Sciences, China	2. ENVIRONMENTAL MANAGEMENT ENVIRONMENTAL ENGINEERING Magnetic zerovalent iron nanoparticles for adsorbable organic halides (AOX) removal from pulp and paper mill effluents T. Gameiro, University of Aveiro, Portugal Experimental investigation the effect of Fe₂O₃ nanoparticle on the performance and emission of SI gasoline fueled with mixture of Dimethyl Ether and gasoline S. Jafarmadar, Urmia University, Iran Airborne asbestos fibers in an urban ambient air of Urmia City (after drying Lake Urmia), West Azerbaijan, Iran and health risk evaluation M.H. Abbaspour, IAU University-Khoy Branch, Iran

18:00-19:00	WELCOME COCKTAIL POSTER SESSION 1	
19:00 – 20:30	<p style="text-align: center;">1. ENERGETIC INSTALLATIONS AND RENEWABLE ENERGIES</p> <p>Renovation Building For Energy Efficiency In A Hot Arid Zone N. Tareq Khalid, Atilim University, Turkey</p> <p>How is Sustainable Hydropower Development achieved in Myanmar? Aung. Ze. Ya, Yangon Technological University, Myanmar</p> <p>Evaluation of c-si PV modules performances in desert environment K. Zoubida, Badji Mokhtar University, Annaba, Algeria, Algeria</p> <p>Effect of architectural solutions for clean energy in healthcare buildings Baris Kocyigit, Atlim University, Turkey</p>	<p style="text-align: center;">2. ENVIRONMENTAL MANAGEMENT ENVIRONMENTAL ENGINEERING</p> <p>pH control in anaerobic bioreactors using fly-ash based geopolymers as buffer material T. Gameiro, University of Aveiro, Portugal</p> <p>Nitrogen recovery from agro-industrial and urban sludges by struvite precipitation in a strategy to overcome methane production inhibition by ammonium nitrogen R. D'arc Coura, Polytechnic Institute of Viana do Castelo - Agricultural School - IPVC/ESAPL, Portugal</p> <p>Consequential LCA in the feasibility study of integrated EFB-based dissolving pulp and furfural production A. Samodra Putra, University of Tsukuba, Japan</p> <p>Increased gaseous benzene remediation by inoculated <i>Chlorophytum comosum</i> with endophytic <i>Enterobacter</i> sp. EN2 A. Setsungnern, King Mongkut's University of Technology Thonburi, Thailand</p> <p>Methane dry reforming reaction on $\text{LaCu}_{0.55}\text{Co}_{0.45}\text{O}_3$ perovskite materials synthesized by sol-gel method Halliche Djamilia Universita des sciences et technologies Houari Bou Algeria</p>

Thursday, 25th July 2019

<u>Schedule</u>	ROOM 2	MAIN ROOM
09:00-09:45		Plenary talk "Valorisation and Treatment by Ultrafiltration of Cork Wastewaters and Other Wastes" Miguel Minhalma Chemical Engineering Department, Instituto Superior de Lisboa, Portugal
09:45 – 11:15	1. ENERGETIC INSTALLATIONS AND RENEWABLE ENERGIES Optimization of electric vehicle charging strategies. the case of Spain in 2030 P. Bastida Molina, Instituto Universitario de Ingeniería Energética, Spain Identifying Optimum Solar PV-Wind Hybrid Model in HOMER Pro Aiming Green Growth for Off-grid Village in Thanintharyi, Myanmar A. Ze Ya, Yangon Technological University, Myanmar Analysis of lost energy, looking for efficient buildings D. Carmona, Universidad de Extremadura, Spain Improving Building Energy Demand Prediction Using Machine Learning Approach M. Beitelmal, Qatar Environment and Energy Research Institute, Qatar	2. ENVIRONMENTAL MANAGEMENT ENVIRONMENTAL ENGINEERING Community of microorganisms with dominance of phototrophs for oil pollution biodegradation in coastal areas P. J. Arias Ordóñez, Peoples Friendship University of Russia, Russian Federation Thiosemicarbazone-based probe for detection and discrimination of a group of toxic transition metal ions and its application in developing logic gate S. Sankar Panja, National Institute of Technology Durgapur, India Miscanthus cultivation and remediation potential on heavy metal contaminated soil in Poland J. Krzyżak, Institute for Ecology of Industrial Areas, Poland Silhouette Analysis by Landscape Character Types in Riparian Zones: A Case of Duzce Asar Stream S. KayaA, Duzce University, Turkey

11:15-11:45	COFFEE-BREAK POSTER SESSION 2	
11:45 - 13:30	<p style="text-align: center;">1. ENERGETIC INSTALLATIONS AND RENEWABLE ENERGIES</p> <p>Derivatives of some natural products as Corrosion Inhibitor for Mild Steel in 1M HCl medium: Experimental and theoretical investigation D. Sukul, National Institute of Technology Durgapur, India</p> <p>Identification of life cycle environmental and cost-effective energy retrofitting solutions for existing offices K. Gaspar, Universitat Politècnica de Catalunya (UPC), Spain</p> <p>Elaboration of a lightweight concrete with high energetic performances (LC-HEP): Study of the impregnation rate together with the mechanical properties Dehmous M'hand, Université de Pau et des pays de l'Adour (UPPA), France</p> <p>Integrated use of Electrical Resistivity Tomography and Ground Penetration Radar for identifying subsurface sinkholes in Rufa Graben Central Riyadh S. Mogren, King Saud University, Saudi Arabia</p> <p>Optimal Design and Integration of Solar Thermal Collection, Storage and Dispatch With Process Cogeneration Systems H. Bamufleh, King Abdulaziz University, Saudi Arabia</p>	<p style="text-align: center;">2. ENVIRONMENTAL MANAGEMENT ENVIRONMENTAL ENGINEERING</p> <p>Assessing waste heat recovery potential in a Portuguese structural ceramic industry H. Monteiro, Instituto de Soldadura e Qualidade, Portugal</p> <p>Quantum dots impregnated-mesoporous TiO₂ nanospheres for environmental remediation H. Santhana Krishnan, Shizuoka University, Japan</p> <p>Fungi and biodegradation of polyester polyurethane S. Khan, Kunming Institute of Botany, China</p> <p>Graphite felt incorporated with MoS₂/rGO for electrochemical detoxification of high-arsenic fly ash Y. Luo, Chinese Academy of Sciences, China</p>

13h30-15:00	LUNCH-COCKTAIL
21:15h- 22:45h	SOCIAL/CULTURAL TOUR A CRUISE ON THE SEINE AT NIGHTFALL Discover the best of Paris. Embark on the Pariscruise ships at the foot of the Eiffel Tower on the Seine river, and enjoy the wonderful sights of the most prestigious monuments and bridges of Paris, by night.

Friday, 26th July 2019

<u>Schedule</u>	ROOM 2	MAIN ROOM
09:30 – 11:15	<p align="center">1. ENERGETIC INSTALLATIONS AND RENEWABLE ENERGIES</p> <p>Photocatalytic hydrogen production using TiO₂-based materials and different sacrificial agents E. Pulido Melián, University of Las Palmas de Gran Canaria, Spain</p> <p>Hydrodynamic wind induce model influencing inner Murchison Bay flow circulation S. Paul, KTH Royal Institute of Technology, Sweden</p> <p>Thermal conductivity of two kinds of earthen building materials R. Ihaddadene, Med Boudiaf University, Algeria</p> <p>An Improved Design and Optimisation Procedure for Simplified Wind Turbine Rotors targeting Small-Scale Applications in Sri Lanka M. Sugathapala, Sri Lanka Institute of Information Technology, Sri Lanka</p> <p>Importance of breaking down electric consumption when designing photovoltaic plants Diego Carmona, University of Extremadura, Spain</p>	<p align="center">2. ENVIRONMENTAL MANAGEMENT ENVIRONMENTAL ENGINEERING</p> <p>Potential hazardous elements release from coal reservoir into underground water during the CO₂ geosequestration C. Liu, China University of Petroleum (East China), China</p> <p>Nanosecond pulse for enhancing electrocoagulation wastewater treatment at a low specific power consumption N. Ho Que, Nagaoka University of Technology, Japan</p> <p>Shaped Porous Iron Oxide based Semiconductor: Efficient Visible Light Photocatalyst for Organic Pollutant Degradation R. Saha, National Institute of Technology Durgapur, India</p> <p>Methane dry reforming reaction on LaCu_{0.55}Co_{0.45}O₃ perovskite materials synthesized by sol-gel method USTHB university Algeria</p> <p>Airborne asbestos fibers in an urban ambient air of Urmia City (after drying Lake Urmia), West Azerbaijan, Iran and health risk evaluation Vahid Golestanishishevan</p>
11:15-12:00	COFFEE-BREAK	

POSTER SESSION 3	
12:00 – 13:15	<div style="display: flex; justify-content: space-between;"> <div style="width: 48%; background-color: #e0f0e0; padding: 5px;"> <p style="text-align: center; color: #0070c0;">1. ENERGETIC INSTALLATIONS AND RENEWABLE ENERGIES</p> <p style="text-align: center;">The development of a microgeneration system to obtain energy from tidal currents V.M. Ramirez Rivera, Centro de Investigación Científica de Yucatán, Mexico</p> <p style="text-align: center;">Application of Oligo(ethylene-oxide)-substituted Conjugated Polymers and Small Molecules in Organic Photovoltaic Cells Processed from Green Solvents A. Charas, Instituto de Telecomunicações, Portugal</p> <p style="text-align: center;">Energy Efficient Research in Regional Architecture Filiz Bal Kocyigit, Atlim University, Turkey</p> <p style="text-align: center;">Statistical Analysis of Solar Radiation and Climatic Data for Maiduguri, Minna and Port Harcourt, Nigeria H.T. Abdulkarim, Cranfield University, United Kingdom</p> </div> <div style="width: 48%; background-color: #e0f0ff; padding: 5px;"> <p style="text-align: center; color: #0070c0;">2. ENVIRONMENTAL MANAGEMENT ENVIRONMENTAL ENGINEERING</p> <p style="text-align: center;">Application of Bacillus thuringiensis to enhance electricity production generated from wetland-microbial fuel cell: efficiency and possible mechanism C. Treesubsuntorn, Pilot Plant Development and Training Institute, King Mongkut's University of Technology Thonburi, Thailand</p> <p style="text-align: center;">Optimization of electrochemical process for anthracene removal from aqueous medium by Taguchi G. Kashi, Islamic Azad University, Tehran Medical Sciences Branch, Iran</p> <p style="text-align: center;">Endogenous Fires in Hard Coal Mines as a Source of Greenhouse Gas Emissions K. Wojtacha-Rychter, Central Mining Institute, Poland</p> <p style="text-align: center;">An approach to bio-based product-related land use change analysis Janusz Golaszewski, University of Warmia and Mazury</p> </div> </div>
13:15 – 15:00	<p>CLOSING COCKTAIL</p> <p>and</p> <p>MUSIC CHAMBERT CONCERT</p> <p><i>Flute and Piano Duet</i></p>

POSTER SESSIONS

Hall Building D

TOPIC 1: ENERGETIC INSTALLATIONS AND RENEWABLE ENERGIES

TOPIC 2: ENVIRONMENTAL MANAGEMENT; ENVIRONMENTAL ENGINEERING

Wednesday, 24th July 2019

SESSION 1 - 18.00-19.00

Title	Name	Surname	ID	Topic
Effet of silicates and carbonates on the structure of Nickel-containing hydrotalcite-derived materials	Ferroudja	BALI	297	2
The effect of a key parameters on the performance of the heat and mass transfer of MmNi _{4.6} Al _{0.4}	Kerboua	ZIARI	124	1
High Coke-Resistance NiAl-MnY Catalyst for Dry Reforming of Methane	Fatima	Zibouche	245	2
Biomass in the Energy Mix of Algeria	Haddoum	SALIHA	220	1
Evaluation of modeling and numerical simulation of an Integrated thermal Solar System in several regions in Algeria	Nor	REBAH	307	1
SnO ₂ /RGO composites as anode materials for lithium-ion batteries	Monika Agnieszka	Osinska Martyła	364	1
Preparation of SnO ₂ /RGO photoanode for dye-sensitized solar cells	Monika Agnieszka	Osinska Martyła	363	1
Modeling of pollution diffusion into air in rectangular area	Andrimalala	SOLOFOMBOAHANGY	318	2
Preparation of activated carbons and charcoals from waste shells of energy crops for the	K. E.	RODRIGUEZ	293	2

removal of FFA from their oils.				
An integral and sustainable approach of <i>Jatropha curcas</i> : Towards a circular economy	D. J.	ESCALANTE	295	2
Hydrothermal oxidation as a promising technology for the removal of sewage sludge	J.	GARCÍA	309	2
Energy-active roof system - design, development and testing	Rene	CHECHMANEK	168	1
Preliminary assessment of the ions sorption by polymethyl methacrylate for the further use as the seawater test containers	Dmytro	SPODARETS	286	2
Green-house Gas Storage through Enhanced Hydrate Formation - Effects of Promoters on Gas Uptake	Thiphakorn	ABSUWAN	135	2
Effects of amino functionalization on Zr-based MOFS for methane and carbon dioxide adsorption	Orawee	LAMOONKIT	136	2
Evaluation of applicability of TiO ₂ -embedded expanded polystyrene balls to inhibit the algal growth in mesocosms from rivers and lakes	MinJi	LEE	162	2
Removal of mixed VOCs by using catalytic corona discharge system.	Issaree	TANTIPRAPA	163	2

Thursday, 25th July 2019

SESSION 2 - 11.15-11.45

Title	Name	Surname	ID	Topic
Preliminary assessment of the ions sorption by polymethyl methacrylate for the further use as the seawater test containers	Anastasija	KOSTENKOVA	271	2
Kinetics of neonicotinoids destruction by UV irradiation , Universidad de Extremadura, Spain	F. Javier	BENÍTEZ	160	2
Electrodialysis and electrocoagulation as combined treatment for industrial wastewater containing arsenic and copper	Henrik	HANSEN	112	2
Adsorption of Volatile Organic Compounds by means Hybrid Material	Laura	RIVERA-MONTENEGRO	118	2
A novel process for repeated biodiesel production from waste coffee grounds: employing a paper-cartridge containing solid catalysts manufactured from waste scallop shells	Sung	HO YEOM	134	1

Isolation and characterization of Fusarium solani: a novel Bisphenol A degrading fungus	Jiri	CERVEN	154	2
AC current in EKR of copper mining waste	Adrián	ROJO	169	1
Development of Concept of Innovative Chemical Reaction System using External Stimuli Responsive Capsules	Daisuke	KOBAYASHI	184	2
Green process of adipic acid synthesis from cyclohexanone and cyclohexene over Dawson-type polyoxometates	Leila	DERMECHE	196	2
Application of TiO ₂ -embedded expanded polystyrene balls to inhibit the algal growth in rivers and lakes	Jin	CHUL JOO	202	2
Application of ionic liquids for separation of halogenated aromatic acids from aqueous effluents	Tomas	WEIDLICH	251	2
Estimation of Optimum Orientation for Solar Panels mounted on Buildings in Sri Lanka	Ruwanga	KODITUWAKKU	333	1
A Study on Modular Power Compensation Technology to Improve the Efficiency of Sunlight Shaded Areas	Kwangwoo-	PARK	178	1
Assessment of furfural inhibition on some Saccharomyces strains in lignocellulosic hydrolyzate fermentation	Nguyen	DINH THI NHU NGUYEN	226	2
Analysis on Micro dust Removal Driven By Electrostatic Spray in Exhaust gas	HyunjunSong		86	2
Machine Learning on Electrocatalytic reduction of CO ₂ for Preventing Atmospheric Pollution and Producing Valuable Chemicals	M. Erdem	GUNAY	281	2
Improved mid-temperature thermoelectric energy conversion efficiency of nanostructured FeSi ₂ doped BiSbTe composites	Harish	SANTHANA	126	1

Friday, 26th July 2019

SESSION 3 - 11.15-11.45

Title	Name	Surname	ID	Topic
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CaO (from eggshell waste) impregnated with alkali metals as a heterogeneous catalyst for biodiesel production	K. E.	RODRIGUEZ	292	1
Preparation of polymetallic and hidrotalcites catalysts. Synthesis of Methanol and DME by hydrogenation of CO ₂	D. J.	ESCALANTE	294	2
Performance of manganese-based solid sorbents for H ₂ S removal: Particle size and promoter effects on sorbent capacity	Mehdi	Mahmoodinia	317	2
Conventional pyrolysis of sawdust to obtain wood vinegar	Josefa	FERNANDEZ-FERRERAS	311	2
The impact of the energy efficiency on the Iberian Electricity market	Jesús	RIQUELME	327	1
Preparation of polymetallic and hidrotalcites catalysts. Synthesis of Methanol and DME by hydrogenation of CO ₂	Karina Elvira	RODRÍGUEZ ESPINOZA	295	2
Estimation of Optimum Orientation for Solar Panels mounted on Buildings in Sri Lanka	Pasan	SUGATHAPALA	333	1
Cu ²⁺ and Zn ²⁺ concentrations in the seawater of Marbella Bay, the province of Malaga, Spain in spring	Viktor	GASSO	290	2
Biological Potential of Cork Wastewater Ultrafiltration Fractions	Miguel	Minhalma	164	2
The cooperation of MoS ₂ /Al ₂ O ₃ and NiMoS ₂ /Al ₂ O ₃ catalysts in the hydrotreating of straight-run gas oil and rapeseed oil mixture	Evgeniya	VLASOVA	323	2
The effect of cleaning agents on occupational health diseases for workers in the hospitality industry	Angeles	SAAVEDRA	228	2
Thermal study and emission characteristics of rice husk using TG-MS	Francisco Jose	SEPULVEDA JUSTO	336	2
Optical analysis to implementation of Linear Fresnel Collector systems in heat generation for industrial process	Francisco Jose	SEPULVEDA JUSTO	335	2
Environmental effectiveness of renewable and nuclear energy sources	Vladimir	GRACHEV	141	1
Modeling and optimization of the performance of a solar tracker	Fatima	ZOHRA	299	1
Phytoremediation of Arsenic Contaminated Soil by Plumbago Zeylanica L.	Shreyasee	BISWAS	221	2
Synthesis of highly crystalline carbon nanotubes by electric arc discharge and their field emission characteristics	Naesung	LEE	254	2
Performance of manganese-based solid sorbents for H ₂ S removal: Particle size and promoter effects on sorbent capacity	Mehdi	MAHMOODINIA	317	2

Porous graphene a potential sorbent for removing emerging contaminants from water	Ahmed	KHALIL		2
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