EMCEI 2019
CONFERENCE PROGRAM

2nd Euro-Mediterranean Conference for Environmental Integration (EMCEI-2)

10 - 13
OCTOBER
2019
TUNISIA

MÖVENPICK RESORT & MARINE SPA
Sousse, Tunisia.
Euro-Mediterranean Journal for Environmental Integration

• A forum for research and collaboration on emerging environmental issues in the Euro-Mediterranean region
• Presents original research, reviews and letters
• Offers innovative approaches toward a sustainable environment in the Mediterranean region

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**10 Oct.**
- **09:00 — 11:00**  
  Arrival of participants / Registration
- **09:00 — 11:00**  
  Welcome Drink & Chat
- **11:00 — 12:30**  
  Big Hall
  
  **KEYNOTE:** Benigno Sánchez Cabrero [T12]
  
  **KEYNOTE:** Settimio Ferlisi [T9]
  
  **KEYNOTE:** Mokhtar Guizani [T6]
- **14:00 — 16:00**  
  Big Hall
  
  **KEYNOTE:** Akiça Bahri [T6]
  
  **KEYNOTE:** Giulia Guerriero [T10]
  
  **KEYNOTE:** Elena Xoplaki [T5]
  
  **KEYNOTE:** Georgios Nikolopoulos [T13]
- **17:00 — 19:00**  
  Icebreaker / Group Photo

**11 Oct.**
- **09:00 — 10:30**  
  **Big Hall**
  
  **KEYNOTE:** Sami Rtimi [T1]
  
  **KEYNOTE:** Sudip Chakraborty [T2]
  
  **KEYNOTE:** Abdeltif Amrane [T3]
  
  **KEYNOTE:** Philippe Michaud [T4]
- **11:00 — 12:30**  
  Big Hall
  
  **[T6-OS1]**
  
  **Room1** [T1-OS1]
  
  **Room3** [T11-OS1]
  
  **Room4** [T12-OS1]
  
  **Poster Hall** [T6-PS1 - Screen 1] [T5-PS1 - Screen 2] [T3-PS1 - Screen 2] [T13-PS1 - Screen 4]
- **14:00 — 16:00**  
  Big Hall
  
  **[T6-OS2]**
  
  **Room1** [T1-OS2]
  
  **Room2** [T5-OS2]
  
  **Room3** [T3-OS1]
  
  **Room4** [T13-OS1]
  
  **Poster Hall** [T6-PS2 - Screen 1] [T4-PS1 - Screen 2] [T2-PS1 - Screen 3] [T9-PS1 - Screen 4]
- **16:30 — 19:00**  
  Big Hall
  
  **[T6-OS3]**
  
  **Room1** [T1-OS3]
  
  **Room2** [T5-OS2]
  
  **Room3** [T2-OS1]
  
  **Room4** [T9-OS1]
  
  **Poster Hall** [T6-PS3 - Screen 1] [T3-PS2 - Screen 2]

**12 Oct.**
- **08:30 — 09:00**  
  Big Hall
  
  **KEYNOTE:** Anthony Lehmann [T8]
- **09:00 — 10:30**  
  Big Hall
  
  **[T6-OS4]**
  
  **Room1** [T6-OS5]
  
  **Room2** [T4-OS1]
  
  **Room3** [T10-OS1]
  
  **Room4** [T8-OS1]
  
  **Big Hall** [T1-PS1 - Screen 1] [T7-PS1 - Screen 2]
- **11:00 — 12:30**  
  Big Hall
  
  **[T6-OS6]**
  
  **Room1** [T7-OS1]
  
  **Room2** [T4-OS2]
  
  **Room3** [T10-OS2]
  
  **Room4** [T8-OS2]
  
  **Poster Hall** [T1-PS2 - Screen 1] [T6-PS4 - Screen 2]
- **14:00 — 16:00**  
  Big Hall
  
  **[T6-OS7]**
  
  **Room2** [T4-OS3]
  
  **Poster Hall** [T1-PS2 - Screen 1] [T10-PS1 - Screen 2] [T8-PS1 - Screen 3]
- **16:30 — 19:00**  
  Big Hall
  
  Plenary 1: Helen Kopnina
  
  Plenary 2: Wolfgang Cramer
  
  Plenary 3: Jürg Luterbacher
  
  Plenary 4: Essam Heggy
  
  Plenary 5: Thomas L. Brewer
- **19:00 — 20:30**  
  Panel discussion / award ceremony / closure
- **21:30 — 23:30**  
  Euro-Mediterranean musicology
  
  4th birthday ceremony of EMJEI

**13 Oct.**
- **08:30 — 09:00**  
  Big Hall
  
  **Plenary 6: Nabil Khélifi**
- **10:00 — 11:00**  
  Big Hall
  
  Special Session
  
  Meet with your Springer journal’s Editors (Q&A)
- **11:00 — 12:30**  
  Big Hall
  
  **Special Session**
  
  Meet with your Springer journal’s Editors (Q&A)
- **14:00 — 18:00**  
  Social Program (Sightseeing Sidi Bou Said)
- **18:00**  
  Departure of conference participants

**SCHEDULE**

T: TRACK  OS: ORAL SESSION  PS: E-POSTER SESSION

REFER TO PROGRAM INDEX TO FIND OUT DETAILS OF YOUR PRESENTATION (REFER TO YOUR PAPER NUMBER)
International Conference on Sustainable Energy-Water-Environment Nexus in Desert Climate 2019 (ICSEWEN19)

2-5 December 2019
Qatar National Convention Centre, Doha, Qatar

Qatar Environment and Energy Research Institute (QEERI) is organizing a specialized international conference in December 2019 to address the challenges and opportunities in the Energy-Water-Environment (EWE) nexus, in particular the research and technology development requirements for EWE nexus in harsh desert climates.

Over 300 researchers, scientists, engineers, and stakeholders are expected to attend the three-day event, which will be held at Qatar National Convention Centre from 2-5 December 2019.

The main goal of this conference is to bring together international experts from academia and industry, as well as relevant stakeholders to share the latest research, innovations and technology developments.

Discussions will be aimed at promoting a better understanding of the links between energy, water and environment to develop key priority areas for human development and environmental sustainability.

Specific Aims:

- To identify areas of collaboration on issues at the EWE nexus on a regional and international scale, and associated technology development and innovative approaches.
- To understand the challenges and barriers, and develop potential solutions for relevant issues in the implementation of research in the area of EWE.
- To exchange ideas and share knowledge with experts and policymakers from around the world.
- To bridge the gap between research and industry and address socio-economic impacts.
- To highlight the research capacity and capabilities relevant to Qatar and the region.

For details of the technical and social program, and for registration information, please visit: https://www.hbku.edu.qa/en/qeeri-ICSEWEN19
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Track 1. Engineering applications for environmental management

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Zied Driss: Ecole Nationale d'Ingenieurs de Sfax, Tunisia

**Track 2. Process control, simulations and intensification for environmental management**

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Yousef Ghorbani: Lulea University of Technology, Lulea, Sweden

**Track 3. Ecotoxicology, environmental safety and bioremediation**

**T3 Chair. Jörg Römbke:** ECT Oekotoxikologie GmbH, Flörsheim am Main, Germany
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Ammar Selatnia: Ecole Nationale Polytechnique d’Alger, Algeria
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- Haq Nawaz Bhatti: University of Agriculture, Faisalabad, Pakistan
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- Helen Shnada Auta: Federal University of Technology, Minna, Nigeria, Nigeria
- Irina Ivanovna Rudneva: Institute of Marine Biological Research: Sevastopol, Russia, Russia
- Joanna Kluczka: Faculty of Chemistry, Silesian University of Technology, Gliwice, Poland
- Johnson Lin: University of KwaZulu-Natal, South Africa
- Joseph nyangi Kamau: Kenya Marine and Fisheries Research Institute, Kenya
- Kumar Pranaw: University of J E Purkyne, Usti Nad Labem, Czechia
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- Luís Novo: University of Aveiro, Portugal
- Madi Jgahir: University of Jordan, Jordan
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- Mariem Ellouze: University of Sfax, Tunisia
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- Mohammad Kadi: King Abdulaziz University, Saudi Arabia
- Monia El bour: INSTIM, Tunisia
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- Salima Saidi Besbes: Oran1 Ahmed Ben Bella University, Algeria
- Salwa Magdich: Olive Tree Institute, Tunisia
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- Shyamapada Mandal: University of Gour Banga, Malda, India
- Silvia Quadroni: University of Insubria, Italy
- Sirine Bouguerra: Universidade do Porto, Portugal
- Sonia Khoufi: Centre de Biotechnologie de Sfax, Tunisia
- Srabani Mishra: Institute of Minerals and Materials Technology, India
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Track 4. Biotechnology for environmental management

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Johnson Lin: University of KwaZulu-Natal, South Africa
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Katia Lasaridi: Harokopio University, Athens, Greece
Khaled Hamden: Université de Monastir, Tunisia
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Lucy Semerjian: University of Sharjah, United Arab Emirates
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Vincenza Calabro: University of Calabria, Italy
Walid Elfalleh: ENIG, University of Gabes, Tunisia
Youssef Ghorbani: Lulea University of Technology, Lulea, Sweden
Track 5. Climate-change-related effects on the environment and ecological systems

- T5 Chair. Elena Xoplaki: Justus-Liebig-University Giessen, Germany
- Ali Harzallah: National Institute of Marine Sciences and Technologies, Tunisia
- Elena Xoplaki: Justus-Liebig-University Giessen, Germany
- Helen Kopinina: The Hague University of Applied Sciences, Netherlands
- Markus Stoffel: Institute for Environmental Sciences, Université de Genève, Switzerland
- Wolfgang Cramer: CNRS, Aix-Marseille University, Aix-en-Provence, France
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- Ákos Rédey: Pannon Egyetem, Veszprem, Hungary
- Ali-akbar Sabziparvar: Faculty of Agriculture, Bu-Ali Sina University, Iran
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- Daniel Sánchez-mata: Faculty of Pharmacy, Complutense University, Madrid, Spain
- Dursun Zafer Seker: Istanbul Teknik Universitesi, Turkey
- Elias Salameh: The University of Jordan/ Center for Strategic Studies, Jordan
- Erick Carlier: University of Lille, France
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- Hanae Steli: University Mohammed 1st, Oujda, Morocco
- Hari prasad Dasari: King Abdullah University of Science and Technology, Saudi Arabia
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- Jairos Rurinda: International Plant Nutrition Institute, Nairobi, United States
- Jean Paul Barusseau: University Via Domitia, France
- Jeffrey E. Lovich: U.S. Geological Survey, Southwest Biological Science Center, Flagstaff, AZ, USA, United States
- John A. Theodorou: Patras University, Greece
- Jose Pinho: Universidade do Minho, Portugal
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- Kamel Gargouri: University of Sfax, Tunisia
- Madi Jaghbir: University of Jordan, Jordan
- Mahe Gil: IRD, France
- Mahfoud Amara: Laboratoire Maitrise de l'eau en agriculture, Ecole Nationale Supérieure Agronomique, Alger, Algérie., Algeria
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- Marc Pagano: Aix Marseille Université, France
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Payap Masniyom: Prince of Songkla University, Thailand
Peter Carey: Lincoln University, New Zealand
Peter Eliasson: Botswana International University of Science and Technology, Palapye, Botswana
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Phoebe Koundouri: Athens University of Economics and Business, Greece
Prosun Bhattacharya: KTH Royal Institute of Technology, Sweden
Rabah Laouar: University Badji Mokhtar Annaba, Algeria
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Siham Benabdallah: CERTE, Tunisia
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Track 7. Smart technologies for environmentally friendly energy production

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- Stefano Falcinelli: University of Perugia, Italy
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- Walid Elfalleh: ENIG, University of Gabes, Tunisia
- Xianlai Zeng: Tsinghua University, China

Track 8. Remote sensing and GIS for environmental monitoring and management

- T8 Chair. Anthony Lehmann: University of Geneva, Switzerland
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- Andrew Durso: University of Geneva, Geneva, Swaziland
- Anthony Lehmann: Université de Genève, Switzerland
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Track 9. Environmental impacts of natural hazards and environmental risk assessment

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**Track 10. Sustainable management of marine and coastal environments**

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KEYNOTES

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• TRACK 10 - Giulia Guerriero, Italy: Sustainable Marine and Coastal Biodiversity Strategies in Response to Global Warming
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• TRACK 12 - Benigno Sánchez Cabrero, Spain: Indoor Air Quality in Residences, Offices, and Museums
• TRACK 13 - Georgios Nikolopoulos, Cyprus: Climate change and infectious diseases in the Mediterranean region: evidence and challenges
In the last few decades there has been a more and more increasing interest of both technical and scientific communities in developing procedures for qualitative and quantitative landslide risk (i.e. hazard × consequences) analyses. However, while standardized methods are now available for the hazard analysis, the standardization is still a challenge for consequence analysis. Based on a comprehensive literature review, this keynote lecture aims to propose a general framework (including input data and procedures) to be adopted at different scales for qualitative or quantitative consequence analysis purposes dealing with buildings exposed to either slow- or fast-moving landslides.

The twenty-first century is the century of grand challenges in many societal fields. One grand challenge involves providing access to clean water, especially in regions of water scarcity. In fact, more deaths are caused by the lack of clean water than wars. Furthermore, water is one of the core essential and basic necessity for economic growth. Hence, water reuse and recycling have emerged as an absolute necessity for adaptation to the transformations of the twenty-first century. On another side, valuable resources (e.g. plant nutrients, organic matter, minerals, etc.) are found in impaired waters and their recovery has become a necessity to protect the environment, create values and lower overall treatment cost. However, the outdated approaches and technologies and incomplete processes for water treatment and resources recovery should be substituted by new and more promising ones. In this regard, emerging membrane technology may offer solutions to this challenge. This plenary talk will give insights into the impending crisis posed by water stress and the potentials of membrane technology in sustainable water management.

Benigno Sánchez Cabrero, Spain: Indoor Air Quality in Residences, Offices, and Museums

Settimio Ferlisi, Italy: Consequence analysis of buildings exposed to landslides: an overview

Mokhtar Guizani, Japan: New insights into sustainable water management in regions of water scarcity
The Mediterranean Region is a hotspot of unsustainable water use with severe pressures exerted on its already vulnerable environment. Climate change is expected to make water resources even scarcer with expected results such as less food and water security, increased poverty, increased displacement of people and coastal flooding, less income and a loss of biodiversity. Several countries are facing an increasing percentage of water supplies originating from overexploitation or from fossil sources. Such practices have significant environmental and political impacts. Besides surface water overuse, groundwater withdrawal, and water transfers, alternative water sources which include water reuse and recycling and desalination are being increasingly used. Given the centrality of water to the socio-economic development of the Mediterranean region as well as its ecological integrity and to the realization of the Sustainable Development Goals (SDGs), innovative approaches that integrate water sources, water-use sectors, water services, water management scales and resource management and basic service provision are needed. Meeting future demands require also creative thinking that encourage cross-sectoral cooperation and help to better assess water, food and energy trade-offs at the national and regional levels. There is thus an obvious need to develop new paths to ensure water security, to improve water resource governance and to reassess current public policies in order to maximize water efficiency and productivity in all sectors. With strategic planning and cooperation amongst Mediterranean countries, water resources can provide the best opportunities for advancing socio-economic integration and achieving the SDGs.

Akiça Bahri, Tunisia: Advancing water integration for the sustainable and inclusive development of the Mediterranean region

According to the fifth assessment report by the Intergovernmental Panel on Climate Change, global warming is a prevailing phenomenon throughout the globe. To address sustainable management of its impact, numerous approaches have been employed. This lecture seeks to profile Ecosystem based Adaptation (EbA) in the natural infrastructure of marine and coastal ecosystems such as sea farms, marine protected areas, and cave ecotourism with the aim of improving biodiversity resilience. The role of EbA, as known, is well-recognized at the international level under the United Nations Framework Convention on Climate Change and the Convention on Biological Diversity. Further, some of the main risks to biodiversity will also be presented, risks which have been experimentally shown to be more acute with increasing temperatures. Finally, we will point out our own methodologies showing how barcoding and assessment of reproductive health biomarkers serve as tools for strategic sustainability if well integrated with “citizen science”.

Giulia Guerriero, Italy: Sustainable Marine and Coastal Biodiversity Strategies in Response to Global Warming

Human-induced climate change is posing significant challenges to Mediterranean societies. Mean temperature increase in the area has exceeded the global levels and precipitation occurs more irregular with strongly varying intensities. Extreme climate events have increased and intensified and are expected to continue in the future. The impact of these changes have exacerbated already existing environmental pressures due to land-use changes, including agricultural intensification and urbanisation, increasing air and sea pollution and declining biodiversity. The first part of the talk will provide a state of the art of current knowledge of observed and future climate change across the Mediterranean. The second part will discuss sectoral pressures and challenges that the Mediterranean societies are facing under current and future climate change.

Elena Xoplaki, Germany: Climate and environmental changes in the Mediterranean region: An overview
During the last decade, the accumulation of pharmaceutical compounds and the increased use of antibiotics raised the bacterial resistance to drugs. Many germs developed a multi-resistance rendering their elimination difficult using just antibiotics/antiseptics. Diverse methods have been proposed to eradicate bacteria. Counterintuitively, many of these methods fall within the energy scarcity since they are using high-energy sources (electrical, thermal, short-wavelength photons...). The development of visible light active photocatalysts has attracted a lot of attention since it allows the use of the abundant sun energy in the Mediterranean zone. This approach showed fast bacterial/microbial eradication from water and/or air with respect to the sustainable development goals (SDGs) fixed by the United Nations (UN). In this presentation, we focus on the progress in the development of visible light active photocatalysts, their functional properties from the nanoscale up, and their role in designing innovative devices for environmental remediation.

Sudip Chakraborty, Italy: Science to Solutions: an Approach with Process Intensification!

Membrane and membrane processes are part of our daily life and will exist as long as life exists. Their intrinsic characteristic of efficiency, operational simplicity and flexibility, relatively high selectivity and permeability for the transport of specific components, low energy requirement, good stability across a wide spectrum of operating conditions, environment compatibility, easy control and scale up have been confirmed in a large variety of applications and operations over the past decades. The main force of membrane technology is the fact that it works without the addition of chemicals, with a relatively low energy use and easy and well-arranged process conductions. Most of the industrial applications, whether they are chemical or biochemical, use membranes not only for pre-treatment processes but also for final downstream purification with minimal simulation based experiment and energy consumption. As compared to the techniques currently used in industry, the development process performed by the advanced modelling techniques is indeed more efficient and cost effective since it is possible to significantly reduce the number of experiments, which are to be performed to get an almost complete overview of the considered processes behaviour. The process simulation is definitely adding a new dimension to scientific investigation and has been actually established as an investigative research tool which is as important as the “traditional” approaches of experiment and theory. The new dimension of science can be merged with existing technologies for a better integration of environmental problems and pollution remediation for a sustainable world.
The large accumulation of emerging pollutants in continental and marine natural waters is the consequence in part, of industrial development on a large-scale. Partly responsible for this pollution, low volumes containing high concentrations of persistent organic pollutants can result in large polluted volumes very weakly concentrated which are difficult to treat. One solution would be to treat the considered pollution on site, as intended in this project. Among the destructive processes available to treat recalcitrant compounds, and especially emerging pollutants, such as pharmaceuticals coming from industrial effluents (concentrations and COD higher than 1 and 10 g L\(^{-1}\) respectively in some pharmaceutical effluents) (D. Mansour et al. C. R. Chim. 18, 39–44, 2014), combined processes have been widely studied (J.P. Scott and D.F. Ollis, Environ. Prog. 14, 88–103, 1995; I. Oller et al. Sci. Total Environ. 409, 4141–4166, 2011), including several studies performed by the ISCR teams (J.M. Fontmorin et al. Chem. Eng. J. 195–196, 208–217, 2012; J.M. Fontmorin et al. Biochem. Eng. J. 70, 17–22, 2013; D. Mansour et al. Water Air Soil Poll. 223, 2023–2034, 2012), owing to their high efficiency to eliminate biorecalcitrant compounds and to their lower cost compared to physico-chemical mineralization. Different electrochemical processes were tested as pre-treatment to demonstrate at a lab-scale level the feasibility of these coupled processes for the removal of pharmaceuticals pollutants. The objective is to improve the biodegradability of the effluent, avoiding its complete mineralization which is not economically viable. On the one hand, a subsequent biological treatment, involving for instance a wastewater treatment plant can be considered to complete effluent mineralization. To demonstrate the feasibility and the interest of the combined process, some recalcitrant compounds, antibiotics and pesticides, were considered.

**Abdeltif Amrane, France:** The coupling of an electrochemical process and a biological treatment for the removal of recalcitrant organic compounds – Case study: metronidazole

The industrial demand for hydrocolloids and notably for alginates with high guluronic acid contents is driven by food applications where the gelifying and thickening properties of these biopolymers are valorized. These polysaccharides are currently exploited from brown macroalgae belonging to Macrocystis, Fucus, Ascophyllum, Ecklonia, Durvillea and Laminaria genus. The increasing demand for alginates with several grades is correlated with the research of species of Phaeophyceae with high potential of exploitation including that of non-alginates biopolymers such as laminarins and fucoidans. A fucoidan and a sodium alginate were extracted from the Tunisian brown seaweed Cystoseira compressa. The fucoidan was a sulfated heterogalactofucan composed of an -(1\,3;1\,4)-fucan branched at O-4 and O-3 positions by terminal monosaccharides and side chains composed of Fucp and Galp residues. The alginate was characterized by a M/G ratio of 0.77. The two polysaccharides exhibited specific rheological properties.

**Philippe Michaud, France:** Structural characterization and rheological properties of two polysaccharides from the Tunisian Phaeophyceae Cystoseira compressa
This work exploits the Multi-Scale Integrated Analysis of Societal and Ecosystem Metabolism (MuSIASEM) nexus approach to examine the sustainability of a socio-ecological system of Geneva in Switzerland. The full MuSIASEM approach considers the food, water, energy metabolism across space and time of any system of interest, considering heterogeneous external and internal factors such as population dynamics, changes in land use or greenhouse gas emissions. It is designed to identify and analyze trends in the societal use of resources and the impacts they create on the environment. This method helps decision-making by confronting the current metabolic model with models projected in different plausible futures, or in other cities. This work evaluates the water and energy metabolisms of Geneva. The aim is to build an environment accounting of flows and consumptions of energy and water according to a multiscale analysis of the primary, secondary, tertiary and private sectors, as well as the impacts of these sectors on the technosphere and the ecosystem. Plausible scenarios are used to demonstrate the relevance of the approach to current social issues.
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PLENARIIES

- **PLENARY 1 - Helen Kopnina, The Netherlands:** What is really needed to achieve environmental sustainability?

- **PLENARY 2 - Wolfgang Cramer, France:** Environmental change in the Mediterranean Basin -- Can scientific information help to achieve the required policy change?

- **PLENARY 3 - Jürg Luterbacher, Germany:** Environmental and Climate Change across the Mediterranean over the last two millennia from paleoclimatic evidence: challenges, opportunities and future directions

- **Plenary 4 - Essam Heggy, USA:** Radar Remote Sensing in Arid & Hyper-Arid Areas

- **Plenary 5 - Thomas L. Brewer, USA:** Maritime Emission Control Area for the Mediterranean Sea? Technological Solutions and Policy Options for a ‘Med ECA’

- **Plenary 6 - Nabil Khélifi, Germany:** How to prepare a successful scientific paper
Environmental sustainability typically refers to diverse issues associated with climate change, biodiversity loss, or pollution. While many policymakers are aware of the symptoms of environmental unsustainability, few of them have addressed the root causes of it, which are population growth, and the global spread of unsustainable production and consumption. Few of those concerned with sustainability in business or politics invest in family planning or address critical questions about whether economic growth can be decoupled from increased consumption of natural resources, which in turn affects the welfare of future generations as well as climate and biodiversity. In order to achieve sustainability aims, public, corporate and government stakeholders need to better understand the importance of integrating environmental considerations with social, demographic and economic mechanisms underlying unsustainable practices. Once these challenges and mechanisms are understood, a more positivistic turn toward sustainable solutions becomes possible.

The Mediterranean Basin is the theater of multiple accelerating processes of environmental change (climate change, biodiversity loss, pollution, overexploitation), yet little is known about the true key risks for human well-being and the policy measures needed to mitigate them. A large pan-Mediterranean network of scientists has begun to assess these risks, based on the evaluation of the scientific literature. Dominant indicators of detrimental change in ecosystems are diebacks following heat waves on land and in the ocean, consequences of water shortages in many areas, and significant expected changes in the littoral zone due to the expected sea-level rise. Measures of adaptation are standard practice in most regions, and have been so for millennia - however the current rates surpass historical ones on most parameters, the region is more densely populated than ever, and most support systems are finely tuned to current environmental conditions. I will present some of the key risks in more detail and conclude with a description of our way towards better exchange of knowledge between scientists and policymakers.

Palaeo environmental and climatic information provide fundamental means for the characterization of natural decadal to centennial time-scale changes and put the recent anthropogenic warming in the long-term perspective. Here we present an overview of historical and natural proxies from marine and terrestrial archives across the Mediterranean back to Greek and Roman times. We discuss the principal methodologies and interdisciplinary approach to convert environmental and climate proxy information to quantitative and qualitative information and show recent advancement in our physical and dynamical understanding of climate and environmental changes, variations, trends and extremes across the Mediterranean. We discuss the potential role of internal variability and external forcing in shaping Mediterranean climate across time and space. The final part of the talk presents future perspectives, challenges and opportunities for collaboration among Euro-Mediterranean communities in the fields of palaeoclimate and environmental sciences.
Arid & Hyper-Arid areas occupy 20% of the Earth continental surface with an increasing surface linked to global changes in the water cycle. Radar and microwave remote sensing techniques have been increasingly used to characterize the water, groundwater and soil moisture temporal and spatial dynamics in these areas due to their ability to accurately measure the soils dielectric properties induced by the different water saturation levels. Today radar and microwave remote sensing methods accounts for the majority of Earth observation techniques for water monitoring and characterization in both arid and hyper-arid areas. In this session, we will provide a comprehensive review of both the performance and limitations of these methods to address the changes in the water cycle in arid and hyper-arid areas notably for the deserts in North Africa and the Arabian peninsula.

Proposals to create a maritime Emission Control Area for the Mediterranean (Med ECA) are on the agendas of national governments, local governments, port authorities, international organizations and non-governmental organizations. Numerous studies have contributed much data and analysis about maritime emissions and their impacts in the Mediterranean region. The present paper reviews the results of these studies. The paper also reviews evidence from existing ECAs in other regions in order to inform analyses of issues about designing and implementing a Med ECA. The potential for applying remote sensing technology and digital ledger technology to compliance verification and enforcement processes is assessed. There are thus many issues and options concerning technologies and policies needing to be addressed. The following international institutions are especially appropriate for facilitating the development of a Med ECA: the International Maritime Organization (IMO) and its affiliated body the Regional Marine Pollution Emergency Response Centre for the Mediterranean Sea (REMPEC), the Climate and Clean Air Coalition (CCAC) at the UN Environment Programme; and the UN Conference on Trade and Development (UNCTAD), which prepares an annual Review of Maritime Transport. The paper concludes that the public health, food production, climate change and economic benefits of a Med ECA would be significant for the more than 200 million people living in Mediterranean coastal areas.

Publication must be seen as an important, if not the most important, part of the research process. However, writing research papers for academic journals is not easy and is also very competitive. After producing data and generating ideas from your research, how do you write a clear and concise paper that attracts the attention of journal editors? How should you prepare a cover letter? How should you respond to reviewer reports? A Senior Publishing Editor from Springer Nature in Heidelberg, Germany shares his advice during three hours on how to effectively write and structure your paper, prepare a cover page and respond to reviewers’ comments.
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TRACK 1.
Engineering applications for environmental management

Responsible Track Chair
Sami Rtimi: Swiss Federal Institute of Technology, Lausanne, Switzerland
• ID 18: Site Selection Criteria and Design for Landfills in an Arid Area with Shallow Ground Water Depth
  Ali Chabuk, Nadhir Al-ansari, Jan Laue

• ID 290: Used lamps recycling in geopolymers
  Walid Hajjaji

• ID 67: Quantitative Estimation of Municipal Solid Waste in Sulaimaniyah Governorate, Iraq
  Karwan Alkaradaghi, Salahaldin S. Ali, Nadhir Al-ansari, Tara Ali, Jan Laue

• ID 120: Optimization of cutting parameters affecting the surface roughness of Al 6061 dry milling machining using Taguchi method
  Shamsuddin Sulaiman, Ahmad Aldehani, Wan Norizawati Wan Isahak, Mohammad Alhajji

• ID 449: MECHANICAL CHARACTERISTICS OF TUNNEL CONCRETE LINING MADE WITH DREDGED SEDIMENT SUBJECTED TO HIGH TEMPERATURES
  Fatiha Kazi Aoual - Benslafa, Kawther Touhami

• ID 471: Efficiency of hybrid process of coagulation/flocculation followed by membrane filtration for the treatment of synthetic vegetable oil refinery wastewater
  Ghofrane Louhichi, Philippe Moulin, Ahmed Ghrabi, Imen Khouni

• ID 90: Adsorption-desorption of Methylene blue by bentonite from aqueous solution
  Nacer Dali, Reda Marouf, Malika Guerrab, Samra Djefal, Fatima Ouadjenia

• ID 48: Adsorption efficiency of graphene oxide towards cya-nine dyes with different alkyl chain lengths
  Abeer Elsheribiny, Ali Gemeay, Mohamed Salem

• ID 204: Cu(II) ions removal on functionalized cellulose beads from Tunisian almond (Prunus dulcis) shell
  Najeh Maaloul, Paula Oulego, Manuel Rendueles, Achraf Ghorbal, Mario Diaz

• ID 265: Optimization of Cr(III) removal from a synthetic solution and a real tanning effluent by powdered marble using 3-level Box-Behnken design: thermodynamic, toxicity and regeneration studies
  Raouia Boujelben, Mariem Ellouze, Sami Sayadi

• ID 279: Dynamics Modelling of Multicomponent Metal Ions Removal onto Low Cost Buckwheat Hulls
  Elwira Tomczak, Wladyslaw Kaminski

• ID 190: Optimization of simultaneous removal of binary toxic antibiotic and heavy metal by novel biocomposite beads: Modeling study using Brouers-Sotolongo family equations
  Sarra Karoui, Rim Ben Arfi, Maria J. Fernández-sanjurjo, Avelino Nuñez-delgado, Achraf Ghorbal, Esperanza Alvarez-rodriguez
ID 412: FATE OF SELECTED HEAVY METALS IN A BIOLOGICAL WASTEWATER TREATMENT SYSTEM
Yahya El Hammoudani, Fouad Dimane, Hossain El Ouarghi

ID 445: Hydrothermal carbonization of olive pomace using olive mill wastewater as a conversion media
Ahmed Amine Azzaz, Mejdi Jeguirim, Camélia Matei Ghimbeu, Simona Bennici, Lionel Limousy, Salah Jellali

ID 244: Degradation kinetics of RhodamineB via sono-UV-Fenton methods in the presence of Tunisian pyrite
Nesrine Dammak, Haithem Bel Hadjtaief, Wiem Hamza, Mourad Benzina

ID 62: Solid particle effect on oxygen transfer rate in electrofloation column
Maroua Mejri, Lassaad Ben Mansour

ID 234: Influence of pH on oxygen transfer rate in electrofloation process
Nadia Hajlaoui, Lassaad Ben Mansour

ID 272: Pervaporation as an alternative desalination method
Władysław Kaminski, Elwira Tomczak, Joanna Marszalek

ID 593: Photooxidation of NO and NO2 with TiO2
Silvia Suárez, Alberto Enrique García De Castro, Mario Escobar, Benigno Sánchez

ID 10: Geotechnical valorization of the Berhoum area (Algeria) geological map for preparing a geotechnical map for construction
Amar Guettouche

ID 277: Novel lignin-reinforced composites: Thermal conductivity, mechanical behavior, and water absorption
Marwa Lahouioui, Rim Ben Arfi, Magali Fois, Laurent Ibos, Achrif Ghoral

ID 432: The waste valorization and the circular economy in Algeria: an overview
Fatiha Kazi Aoual – Bensifa, Kawther Touhami

ID 142: Environmental approach, Processing and valorization solid waste ceramic breaks
Mustapha El Kanzaoui

ID 198: Use of Waste Glass Powder as partial replacement of cement mortar: environmental effects
Sofiane Saggaï

ID 415: Effect of hydroxide sludge waste on mechanical properties of masonry bricks
Souad Kherbache, Nedjima Bouzidi, Salima Chebbi, Siham Aissou, Karim Moussaceb, Abdelkader Tahakourt
ID 459: Contribution to the study of mechanical behavior of granular media
Souhila Fergani, Mohamed Chikhaoui, Patrick Pizette, Ammar Nechnech

ID 465: The use of gold ore tailings from Amesmessa mine, as raw material in the ceramic field
Nedjima Bouzidi, Amina Baziz, Dolores Eliche-quesada

ID 481: Kinetic Study Of Waste Tires By Thermogravimetric Analysis TGA: Kissinger-Akahira-Sunose (KAS) Method
Hiba Rejeb

ID 292: Solid deposit effects on pressure in closed pipes
Wahiba Mokrane

ID 74: Reuse of Industrial water at Mellitah Complex
Ahmed Zaed, Issa Baghne, Fawzi Elshawish

ID 353: Physicochemical characterization of wastewater from the mining activity: a case study from Boukhadra mine (Algeria)
Fella Zenati, Adel Djellali

ID 285: Ferritization-based treatment of zinc-containing wastewater flows: influence of aeration rates
Bogdan Yemchura, Gennadii Kochetov, Dmitry Samchenko, Tatyana Prikhna

ID 391: Sonophotocatalytic degradation of endocrine disrupting chemical 4-cumylphenol in the presence of inorganic oxidant species in aqueous solution
Mahdi Chiha, Fatiha Ahmedchekkat, Hayet Chamekh

ID 386: Degradation of Orange G by Homogeneous Advanced Oxidation Processes
Hayet Chamekh, Mahdi Chiha, Fatiha Ahmedchakkat

ID 481: Kinetic Study Of Waste Tires By Thermogravimetric Analysis TGA: Kissinger-Akahira-Sunose (KAS) Method
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Mahdi Chiha, Fatiha Ahmedchekkat, Hayet Chamekh

ID 386: Degradation of Orange G by Homogeneous Advanced Oxidation Processes
Hayet Chamekh, Mahdi Chiha, Fatiha Ahmedchakkat

ID 92: Oxidation of Methylene Blue by Copper via a Heterogeneous Fenton-Like Process
Souad Djerad

ID 232: Feasibility of integrating (PV/T) solar collector in Tunisian households to cover thermal and electric building needs based on sustainable solar energy
Majdi Hazami

ID 231: Study of a solar combiSystem (SCS) producing thermal and electric energies in Tunisian households
Majdi Hazami, Farah Mehtaoui, Amenallah Guizani

ID 124: Comparison between Ventilation, Recirculation, and Duncle cycles of desiccant cooling system in the hot and dry weather of Gabes
Sarra Belguith
• ID 303: Fe/clay composite as catalysts for textile wastewater treatment
  Hajer Chargui, Walid Hajjaji

• ID 241: Synthesis and characterization of activated carbon from Pinus halepensis cone wastes; Adsorption Prediction as a function of some physicochemical characteristics of activated carbons.
  Zied Marzougui, Sana Ghrab, Mohamed Damak, Leila Chaari, Abdelhamid Elaissari, Boubaker Elleuch

• ID 271: ADSORPTION OF INDUSTRIAL DYE BzR FROM AQUEOUS SOLUTION USING LOCAL MODIFIED CLAY
  Kamel Ismet Benabadji, Zakarya Baouch, Brahim Bouras

• ID 355: Removal of Methylene Blue from aqueous solutions by biosorption on activated carbon: Equilibrium, kinetic studies
  Ykhlef Laidani, Ghania Henini, Salah Hanini, Aida Fekaouni, Kheira Djellouli Della

• ID 66: Removal of dispersed dye from aqueous solution by bottom ash
  Fatima Zohra Bennekrouf, Fatima Ouadjenia, Reda Marouf

• ID 413: Experimental study of the removal of Rhodamine B from aqueous solution by adsorption onto coffee waste
  Soumaya Larous, Abdeslam Hassen Meniai, Nadjet Boulkroune, Nardjess Bouneb

• ID 574: Electrochemical impedance spectroscopy and adsorption study of carbon steel in 1M HCl solution containing 2-(2-Methoxybenzylidene) Hydrazine-1-Carbothioamide
  Hana Ferkous, Souad Djellali, Rachid Sahraoui, Hamza Behloul, Khaoula Saoud, Alaaddin Çukurovali

• ID 361: Kinetics and equilibrium studies on bemacid red dye re-oval by adsorption onto calcined pomegranate skin
  Ghania Henini, Ykhlef Laidani, Aida Fekaouni, Kheira Djellouli Della, Salah Hanini

• ID 403: Cationic dye removal using alginate-organobentonite composite beads
  Asma Oussalah, Abdelhamid Boukerroui

• ID 442: Successive removal of Methylene Blue and Congo Red by biomass-based beads from aqueous solutions
  Hana Boubaker, Rim Ben Afri, Achraf Ghorbal

• ID 447: Malachite Green removal ability of a new low temperature alkali-treated Almond shell adsorbent
  Rim Ben Afri, Khawla Guiza, Karine Mougin, Achraf Ghorbal

• ID 497: Low cost magnetic adsorbents for water remediation
  Nadia Chekalil, Salima Saidi-bebes, Abdelhamid Elaissari

• ID 105: Application of almond shell-based materials for aquatic pollutants removal: a mini-review
  Achraf Ghorbal, Rim Ben Afri

• ID 314: Fabrication of novel keratin/cellulose-based composites for oils and organic solvents absorption
  Khawla Guiza, Rim Ben Afri, Achraf Ghorbal

• ID 372: Contribution and Valorization of a Local Plant (Opun-tia Ficus Indica In CHLEF) for the Elimination of an Organic Pollutant (Red Dye Bemacid)
  Aida Fekaouni, Ghania Henini, Ykhlef Laidani

• ID 376: Study of the influence of some parameters on the effi-ciency of elimination of zinc by synthesized Na-Y faujasite
  Hanane Bahaz, Abdelkader Hadj Seyd, Kerroumia Moulai, Fatma Zohra Saifi, Houria Naimi

• ID 581: Optimization of indigo dye removal by continuous elec-trocoagulation process
  Kamel Hendaoui, Fadhila Ayyari, Malika Trabelsi-ayadi
TRACK 2.
Process control, simulations and intensification for environmental management

Responsible Track Chair
Sudip Chakraborty: University of Calabria, Rende, Italy
- ID 117: Enhanced cyclohexane oxidation activity and selectivity on new supported transition metal catalysts based on Co and Ag
  Ritha Soulimane, Khaira Tafiani, Nawel Ameur, Redouane Bachir, Sumeya Bedrane

- ID 516: Synthesis, characterization and application in liquid phase organic oxidation of LaFe1-xCoxO3 nanoparticles.
  Imen Jaouali

- ID 464: Extraction and use of lignin for membrane properties modification
  Adel Zrelli, Walid Elfalleh, Achraf Ghorbal

- ID 603: An Experimental Study on the optimization of the Operating Parameters of a Sweeping Gas Membrane Distillation Unit
  Mokhless Boukhriss, Mohamed Bechir Ben Hamida, Sofien Khmiri

- ID 490: Optimized Functionalization of Industrial waste for Oil Spill Remediation
  Sebastiano Candamano, Angelo Mazza, Fortunato Crea, Sudip Chakraborty

- ID 83: The concrete degradation caused by ammonium chloride present in coke wastewater
  Barbara Stomka-Stupik

- ID 407: Use of Sr2+/Ca2+ ratios to differentiate sources of sulphate in a confined aquifer influenced by evaporate layers and brackish-water intrusion
  Mohsen Ben Alaya, Safouan Ben Ammar, Mohamed Khouatmia

- ID 411: Ternary phase equilibrium data for water / Acetic acid / solvent (n-Hexane, n-Heptane) systems
  Nadjet Bouikroune, Abdeslam Hassen Meniai, Soumya Larous, Abdelhafid Talhi

- ID 301: Thermodynamic analysis and simulation of the adsorption refrigeration system
  Nihel Benzid, Nejib Hajji, Mohammed El Ganaoui

- ID 565: Characterization of low-density polyethylene/poly (3-hydroxybutyrate-co-3-hydroxyvalerate) blends compatibilized with poly (ethylene-co-glycidyl methacrylate)
  Hana Boughrara, Souad Djellali, Nacerddine Haddaoui

- ID 598: Assessment of groundwater vulnerability to pollutants by electrical resistivity tomography at Mateur plain, Northeastern Tunisia: Preliminary result
  Chadia Riahi, Mohamed Khaled Bouzid, Romdhan Haddad, Adel Klai, Kamel Regaya
ID 575: Synthesis of ZnO Modified by Urea–Hydrogen Peroxide with Improved Photocatalytical Activity in Gaseous Phase under Different Irradiations
Karima Ayeb, Noomen Moussa, Giuseppe Marcì, Elisa Garcia-lopez, Mohamed Faouzi Nsib

ID 469: Enhancement of the compatibility between natural rubber and pineapple leaf microfibers for better stress transfer in their composite
Budsaraporn Surajarusarn, Nuttapong Hariwongsanupab, Gautier Schrodj, Samar Garreau, Karine Mougin, Taweechai Amornsakchai

ID 491: Potential Applications of Zeolite Membranes
Catia Algieri

ID 594: Successful Use of Response Surface Methodology to Enhance the Degradation Efficiency of a Water Pollutant of Emerging Concern
Andrei Ionut Simion, Raluca Maria Hlihor, Lidia Favier

ID 172: Oriented membrane processes for selective separation and recovery of direct red 80 and methylene blue dyes from textile wastewater
Imane . Mourtah, Zakaria Habibi, Youssef Chaouqi, Tarik Eljaddi, Nezha Sefiani, Laurent Lebrun, Miloudi Hlaibi

ID 208: Adsorption of dyes from aqueous solutions onto multi-functional PPy/CS Exfoliated nanohybrid for fashionable layered polymer nanocomposites
Nehal Salahuddin

ID 189: Quality of prediction for spatiotemporal covariance models
Helmut Waldl

ID 311: Behind the Mechanism of Chromium (VI) Removal and Reduction from Aqueous Solutions by Fungal Biomass using a Bio-Inspired Process Modelling and Optimization
Raluca Maria Hlihor, Elena Niculina Dragoi, Mariana Diaconu, Lidia Favier, Silvia Curteanu, Maria Gavrilescu

ID 309: Modelling approach of the biogeochemical cycle on the Moroccan shallow reservoir
Karima Khalil, Hanane Rhomad, Wafae Belokda, Hiba Ahdour, Zainab Damsiri, Khalid Elkalay

ID 169: Assessment of Management practices impact on the water quality of Béja river watershed using SWAT Model
Dorsaf Ben Othman, Mohamed Fadhel Megdiche, Moncef Gueddari
TRACK 3.
Ecotoxicology, environmental safety and bioremediation

Responsible Track Chair
Jörg Römbke: ECT Oekotoxikologie GmbH, Flörsheim am Main, Germany
ID 239: Elimination of pollutants from industrial wastewater by phytoremediation
Sarra Badache, Nora Seghairi, Naouel Guerrouf

ID 549: Plant growth promoting and heavy metal-tolerant rhizobia from Algeria
Mouloud Ghadbane, Laid Benderradji, Samir Medjekal, Hani Belhadj, Harzallah Daoud

ID 496: Assessment of arbuscular mycorrhizal fungi status and rhizobium on date palm (Phoenix dactylifera L.) cultivated in a Pb-contaminated Soil
Mouloud Ghadbane, Samir Medjekal, Laid Benderradji, Hani Belhadj, Harzallah Daoud

ID 58: Larvicidal activity of Lamiaceae and Lauraceae essential oils and their effects on enzyme activities of Culex pipiens L. (Diptera: Culicidae)
Fouzia Tine-djebar, Djemaa Dris, Raja Guenez, Samir Tine, Nouredine Soltani

ID 480: Laboratory scale bio-stimulation of Volatile Petroleum Hydrocarbons contaminated soil by indigenous microorganisms
Abdulmagid Ali, Russell Davenport, David Werner

ID 127: A novel drug delivery system for Amphotericin B to treat Cutaneous Leishmaniasis
Nour Elhouda Ben Ammar, Ahmed Hichem Hamzaoui

ID 483: Ecological risk assessment of trace metal pollution in an urban agricultural area of Yaoundé (Cameroon)
Amina Aboubakar, Ahmed Douaik, Yvette Clarisse Mfopou Mewouo, Raymond Charly Birang A Madong, Abdelmalek Dahchour, Souad El Hajjaji

ID 555: Bioaccumulation assessment of trace metals by three main demersal fish from Algerian coast Ahmed Inal, Yasmina Belkacem, Redouane Benares, Samir Bachouche, Samir Rouidi, Mostefa Boulahdid

ID 300: Ecotoxicological requirements and test methods for the evaluation of wastes
Jörg Römbke

ID 195: Histopathological changes in the hepatopancreas of Porcellio laevis (Crustacea, Isopoda) after exposure to Cd and Zn mixture (Bizerte, Tunisia)
Chedliya Ghemari, Raja Jelassi, Hajer Khemaissa, Christophe Waterlot, Maryline Raimond, Catherine Souty-grosset, Francis Douay, Karima Nasri-ammam

ID 425: Characterization and Ecotoxicological Assessment of Polycyclic Aromatic Hydrocarbons in Soils from the Niger Delta, Nigeria
Mutiu Adeleye, Ohiro Oziegbe, Ouadadi Senouci

ID 613: Storage facilities reclamation using dredged sediments from waterways: growing media formulation for plants according to E.U ECOLABEL framework
Marie Lemay, Yannick Mamindy-pajany, Nor-edine Abniak, Afef Zouch, Mohamed Ksibi

ID 302: Honeybees as bioindicators in environmental monitoring: practical applications and open online course
Luca Boletti, Elida Nora Ferri, Stefano Sangiorgi, Claudio Porrini, Luca Ferrari, Marco Nenzioni, Roberto Colombo, Severino Ghini, Stefano Girotti

ID 487: Applicability of Surfactant-Enhanced Remediation in Arctic conditions
Olga Kulikova, Elena Mazlova, Tatiana Smirnova, Anastasiia Karnaeva
Abdelhafidh Hemeir, Ali Masmoudi, Houcine Abdelhakim Reguieg Yssaad

ID 508: Persistence and differential survival of fecal indicator bacteria in Boukourdane waters  
Siham Arab, Somia Hamil, Abdeslam Arab

ID 224: Responses of Orchestia montagui (Amphipoda, Talitridae) to a copper and zinc mixture  
Raja Jelassi

ID 337: Pollution-related decrease in the T-cell immune response in a wild bird species  
Tasnim Ayadi, Abdessalem Hammouda, Slaheddine Selmi

ID 365: Phytotoxic effect of pollution on young olive trees (Olea europaea L.)  
Dhouha Frihka, Bechir Ben Rouina

ID 159: Analysis of Bioaccumulation of Heavy Metals and Physiological Status of the Crab Scylla serrata from Different Coastal Regions of Tuticorin, Southeast Coast of India  
Muralisankar Thirunavukkarasu, Gayathiri Kumar, Yogeshwaran Arumugam, Gayathri Velusamy

ID 345: Mitochondria dysfunction on striatum after a chronic exposure to pesticides mixture in rats  
Salim Gasmi, Mohamed Kebieche, Brahim Ben Aicha, Rachid Rouabhi, Samira Boussekine

ID 176: Comparative Growth Of Cereals Species Under Lead Stress  
Hana Souahi, Zina Gassarellil, Ahlem Gharbi, Leila. Meksem Amara

ID 611: Heavy metals spatial distribution in seawater, suspended particulate matter and sediments in Gabes gulf (Tunisia)  
Dorra Gargouri, Neila Annabi-trabelsi, Qusaie Karam, Ayadi Habib

ID 146: The use of Armadillo officinalis Duméril, 1816 (Crustacea, Isopoda) as a tool for trace element contamination assessment  
Hajer Khemaissia, Raja Jelassi, Chedliya Ghemari, Maryline Raimond, Catherine Souty-grosset, Karima Nasri-ammar

ID 321: Investigation of man-caused contaminated sites in the Arctic region  
Anastasia Karnaeva, Olga Kulikova, Elena Mazlova, Aleksey Buryak

ID 72: The mussel Mytilus galloprovincialis: nutritional quality and bioindicator of availability of radionuclides in the marine environment (Algerian basin)  
Yassine Guendouzi, Dina Lila Souallili, Mostefa Boulahdid, Nabila Eddalia, Meriem Boudjenoun, Abdelkader Noureddine

ID 273: Sea farms as a safe and sustainable food source: an investigation on use of seaweeds for liver detoxification and reduced DNA damage in Lates calcarifer (Bloch, 1790)  
Oladokun Sulaiman Olanrewaju, Anna De Maio, Eva Lionetti, Anna Rita Bianchi, Dea Rabito, Andrea Ariano, Fatima-zahra Majdoubi, Giulia Guerriero
TRACK 4.
Biotechnology for environmental management

Responsible Track Chair
Philippe Michaud: Université Clermont Auvergne, Polytech Clermont Ferrand, Aubière, France
ID 570: Development of environmentally-friendly enzymatic process for the removal of protein stains from textile support using statistical design
Maroua Omrane Benmrad, Mouna Kriaa, Sondes Mechri, Samir Bejar, Ayda Baffoun, Riadh Zouari, Nabil Kechaou, Bassem Jaouadi

ID 409: Environmentally-friendly approach of unhairing of goat and cow skins for leather processing using a new actinobacteria keratinase
Mouna Ben Elhoul, Nadia Zarai Jaouadi, Hatem Rekik, Maroua Omrane Benmrad, Sondes Mechri, Samir Bejar, Bassem Jaouadi

ID 612: Comparative study of cooked and uncooked food waste co-composting with green waste and sewage sludge: A case study of Tunisia
Nour El Houda Chaher, Mehrez Chakchouk, Hadef Redjem, Abdallah Nassour, Michael Nelles, Moktar Hamdi

ID 53: Influence and Toxicity of MEK Solvent in the Releases Waters at the Level of Arzew Refinery
Walid Rezig, Brahim Berkani, Mohammed Hadjel

ID 211: Treatment of Direct Yellow 106 by Fenton process using Taguchi method
Nabila Boucherit, Mahmoud Abouseoud, Mohamed Barki, Lydia Adour

ID 225: Extraction of Drug Residuals from an Aqueous Solution Using Nanocellulose Adsorbent
Yasmin Thaher, Shehdeh Jodeh, Othman Hamed

ID 371: Detection of Hepatoviruses A in two Tunisian wastewater treatment plants
Chourouk Ibrahim, Salah Hammami, Abdennaceur Hassen

ID 260: Reversibility effects of salinity stress in Lepidium sativum: growth, resistance state, and management
Chiraz Chaffei, Hajer Bechedly, Tarak Slatni, Houda Gouia

ID 122: Removal of phenol from aqueous solution by coupling alternating current with biosorption
Amina Othmani, Aida Kesraoui, Mongi Seffen

ID 281: Novel biosorbents from Tunisian date palm “Bouhattam” seeds for copper(II) ion adsorption
Najeh Maaloul, Paula Oulego, Manuel Rendueles, Achraf Ghorbal, Mario Diaz

ID 222: Adsorption of anionic surfactant on Phragmites australis: pretreatment and reaction mechanisms
Rania Dallel, Rochdi Baati, Mongi Seffen

ID 245: BIOSORPTION OF Basic Red 46 DYE FROM AQUEOUS SOLUTION BY A STREPTOMYCES RIMOSUS BIOMASS
Ammar Selatnia, Yamina Thoulak-dahoun, Abdellaker Madani, Ali Alouache

ID 424: Removal of Hexavalent Chromium by Pleurotus mutilus Biomass in Aqueous Solution
Ali Alouache, Ammar Selatnia, Boubekeur Nadjemi

ID 450: SYNTHESIS OF POLYANILINE/PECTIN COMPOSITES AND THEIR USE AS BIOSORBENT FOR CATIONIC DYE REMOVAL
Souad Djellali, Amani Touati, Maya Kebaili, Rachid Sahraoui

ID 310: Oriented membrane processes for treatment and recovery of vanadium ions from industrial acidic solutions
Imane Touarssi, Youssuf Chaouqi, Imane Mourtah, Tarik Eljaddi, Sanaa Majid, Laurent Lebrun, Miloudi Hlaibi

ID 428: Effective removal of heavy metal ions from wastewater using a new magnetic polyHIPE monoliths.
Zakaria Mokadem, Salima Saidi-besbes, Geraldine Agusti, Abdelhamid Elaissari
• ID 283: The treatment of wastewater according to the oriented membrane processes for the extraction and recovery of the norfloxacin compound
  Rkia Louafy, Sanae Tarhouchi, Habib Mouadili, Oussama Kamal, Khalifa Touaj, Laurent Lebrun, Miloudi Hlaibi

• ID 143: Extraction Behaviors for Inorganic Arsenic Removal from Seaweed (Gracilaria fisheri) Using Food Additives
  Charuwan Khamkaew

• ID 331: Performance of laboratory scale up-flow constructed wet-lands for tertiary wastewater Treatment
  Narimen Baccari, Mona Lamine, Moncef Khadraoui

• ID 20: Household Solid Waste management in Khenifra region, Morocco.
  Driss Elhamdouni, Abdelkrim Arioua, Ismail Karaoui

• ID 261: Oriented membrane processes for the treatment of wastewater from the pharmaceutical industry loaded with Paracetamol compound.
  Sanae Tarhouchi, Rkia Louafy, El Houssaine Al Atmani, Khalifa Touaj, Laurent Lebrun, Miloudi Hlaibi

• ID 206: Biotechnological properties of new microbial peroxidases for lignin and humic acid biodegradation and biodeterioration
  Bassem Jaouadi, Khelifa Bouacem, Hatem Rekik, Nadia Zarai Jaouadi, Samir Bejar, Rachid Annane, Abdelmalek Badis, Amel Bouanane-Darenfed

• ID 296: Nitrogen removal from ink-jet textile printing wastewater by autotrophic biological process: first results at lab and pilot scale
  Giacomo Bellandi, Roberto Di Cosmo, Andrea Turolla, Micol Bellucci, Simone Visigalli, Glauco Menin, Martina Bargna, Giovanni Bergna, Roberto Canziani

• ID 267: Preparation of iron-loaded maritime pine tannin resins for arsenic uptake from water
  Hugo Alexandre Mendes Bacelo, Cidália Maria De Sousa Botelho, Silvia Cristina Rodrigues Dos Santos
TRACK 5.
Climate-change-related effects on the environment and ecological systems

**Responsible Track Chair**

Elena Xoplaki: Justus-Liebig-University Giessen, Germany
ID 375: Effect of physical parameters on the transparency of Ichkeul Lake’s waters, North-East of Tunisia
Hajer Ouni, Mitsuteru Irie, Nabiha Ben M’barek, Jamila Tarhouni, Nejla Tlatli-hariga, João Miguel Dias

ID 404: Spatio-temporal structure of rotifers assemblages in a lacustrine ecosystem, Northern Algeria, A STATICO analysis
Somia Hamil, Siham Arab, Ismahane Adaouri, Ikram Nasrouche, Amin Chaffai, Mounia Baha, Abdeslem Arab

ID 396: Ecosystem disturbance records during the Uppermost Maastrichtian-Lower Danian in southern Tethyan realms (Gafsa Basin, Tamerza area, Tunisia)
Salma Jmal, Noura Kotti, Besma Mardassi

ID 243: Implementation of the climate agreement in the Russian oil and gas sector
Elena Mazlova, Tatiana Smirnova, Olga Kulikova, Yana Blinovskaya

ID 133: Spatio-temporal variability of annual precipitation in semi-arid area: the Wadi Cheliff case study
Mohammed Achite, Tommaso Caloiero

ID 582: Evaluating satellite-derived evapotranspiration trends: A case study of the Marksovsky district of the Saratov region (RF)
Olga Ermolaeva, Anatoly Zeyliger, Liubov Molchanova, Yujiu Xiong

ID 584: Spatiotemporal variability of rainfall and temperature for the Dhidhessa River Basin (Ethiopia)
Gizachew Kabite, Misgana Kebede, Berhan Gessesse, Sifan Abera

ID 344: Contribution to the understanding of rainfalls occurring in Buenos Aires city (Argentina) between 1960 and 2018
Marcelo Lino Morales-yokobori

ID 9: The impact of climate change on the hydrological characteristics and water availability of the Pamir Mountain rivers
Inom Normatov, Rano Eshankulova, Parviz Normatov, Qodirjon Odinaev
ID 399: Influence of tillage systems on soil bulk density and carbon dioxide emissions in the Mediterranean context
Roua Amami, Khaled Ibrahimi, Abdelhamid Znouda, Khaoula Abrougui, Sayed Chehaibi

ID 210: Simulation of desiccation cracking in clayey soil using FEM-MPM coupling method
Jihen Feki, Houcem Trabelsi, Sami Montassar

ID 440: Elevated temperature affects biochemical responses and oil quality in olive trees (Olea europaea L., cv Chetoui)
Yemine Ben Rouina, Mohamed Zouari, Nacim Zouari, Bechir Ben Rouina, Mohamed Bouaziz

ID 126: Drought disturbance from climate change: response of cork oak (Quercus suber L.) forests in North Africa (Tunisia)
Issam Touhami, Hassane Moutahir, Juan Bellot, Touhami Rzigui, Hamdi Aouinti, Ali El Khorchani, Mohamed Tahar Elaieb, Abdelhamid Khalidi, Zouheir Nasr

ID 282: Change detection analysis of vegetation cover in the middle of the Modder River Catchment (South Africa): Implications for climate variability
Saheed Oke, Silent Ruzvidzo

ID 148: Novel aspects for accounting & monitoring carbon sequestration of tree crops in the Mediterranean; Environmental and Economic Benefits
Kostas Bithas, Antonios Kolimenakis, Angelos Mimis

ID 419: Climate change adaptation and resilience for Tunisian farmers in semi-arid regions
Jamel Ben Nasr, Hatem Chaar, Fadoua Bouchiba

ID 228: Impact of weather parameters on abundance of Liriomyza cicerina (Agromyzidae) in the northwest of Tunisia
Abir Soltani, Moez Amri, Antonio Carapelli, Jouda Mediouni Ben Jemâa

ID 499: The Amphistegina invasion in the Monastir bay, Tunisia
Mohamed Damak, Manel Ben Ismail, Monem Kallel

ID 462: Population structure and body size of the Sahara Blue-eyed pond turtle Mauremys leprosa saharica, from an isolated pond in southern Morocco.
Soumia Loulida, Mohammed Znari, Mohamed Naimi, Safaa Bendami

ID 348: Abrupt and sustained acidification in southern Tethyan margin during the Paleocene Eocene Thermal Maximum: Impacts on foraminifera
Noura Kotti, Besma Mardassi, Ignacio Arenillas, Jamel Abdennaceur Ouali
TRACK 6.
Natural resources, agriculture and the environment

Responsible Track Chair
Armando da Costa Duarte: University of Aveiro, Portugal
ID 115: Agricultural valorization of sewage sludge: impact on soil components and the cultivation of alfalfa (Medicago sativa L.)
Sabrina Ait Slimane-aït Kaki, Hakima Oulebsirimhandzaki, Kaissa Boudieb

ID 199: Evolution of nitrogen and phosphorus in Tunisian agricultural soil under controlled conditions
Manel Allani, Hatem Ibrahim, Abdessatar Hatira

ID 514: Pollinator impact on the sterolic and the triterpenic dialcohol composition of virgin olive oils (VOOs) from southern Tunisia autochthonous varieties
Imen Oueslati, Hédia Manai, Faouzia Mahjoub Haddada, Jacinto Sánchez-casasc, Xavier Fernandez

ID 381: Importance of phytosterols in the classification of Tunisian olive cultivars: Discrimination between Varieties, Hybrids and Oleasters
Hédia Manai-djebali, Imen Oueslati, Béchir Baccouri, Zina Harzalli, Manuel A. Martínez-cañas, Jacinto Sánchez-casas

ID 452: The contribution of the costs of agricultural inputs (to) wheat grain yield: Morocco as a case study.
Hayat Lionboui, Tarik Ben Abdelouahab, Fouad Elame, Abdelghani Boudhar, Adil Salhi, Rachid Hadria

ID 395: The Effect of Irrigation Water’s Salinity on a Wheat Culture in the Presence of the Organic Matter
Affaf Masmoudi, Ali Masmoudi

ID 400: Short-term effect of food waste digestate amendment on two agricultural soils with different textures
Zeineb Louati, Sarra Hechmi, Ismail Trabelsi, Naceur Jedidi, Mohamed Ali Wahab

ID 254: Olive mill wastes in the Mediterranean: an initial assessment of organic matter and nutrients of agricultural value
Evan Marks, Hanene Akrout, Vasiliki Kingopoulou, Charalampos Doulgeris, Salah Jellali, Carlos Rad, Paula Sánchez Zulueta, Evangelos Tziritis, Leila Elbassi, Mejdi Jeguirim

ID 478: Olive Mill Solid Wastes: From Wastes to Biofertilizer
Lobna Bargougui, Mohamed Chaieb, Ali Mekki

ID 362: Behavior of the chemical composition of the refined, blended and extra virgin olive oils during heating process
Imen Oueslati, Hédia Manai

ID 359: Durum wheat (Triticum durum) sprouts hygienic quality at different temperature and the role of zinc on improving microbial properties
Sarra Jribi, Helga Molnár, Otilia Tamara Antal, Nóra Adányi, Oussema Kheriji, Zoltan Naár, Hajar Debbabi

ID 452: The contribution of the costs of agricultural inputs (to) wheat grain yield: Morocco as a case study.
Hayat Lionboui, Tarik Ben Abdelouahab, Fouad Elame, Abdelghani Boudhar, Adil Salhi, Rachid Hadria

ID 395: The Effect of Irrigation Water’s Salinity on a Wheat Culture in the Presence of the Organic Matter
Affaf Masmoudi, Ali Masmoudi
• ID 45: Heavy Metal Contamination Degree of Soils Surrounding the Rehabilitated Dump of Oued Smar, Algeria
Nadib Benosmane

• ID 123: Effect of manure and differing sand amendments on the soil chemical properties of the oases in Tunisia
Nissaf Karbout, Roland Bol, Rawan Mlih, Mohamed Moussa, Habib Lamoro, Nadhem Brahim, Habib Bousnina

• ID 335: Measuring the engineering properties of landfill leachate-contaminated soil
Safia Hussein, Hassan Fath, Abdelazim Negm, Ahmed Tawfiq

• ID 405: PGPR traits of rhizospheric Nocardiopsis strains isolated from Algerian soils
Lamia Aouar, Inas Boukelloul, Abderhmanne Benadjila

• ID 196: Developing a platform to involve local stakeholders in the planning & implementation of multifunctional soil and water conservation works in central Tunisia
Houssem Braiki, Sarra Kchouk, Julien Burte, Habaieb Hamadi, Sami Bouarfa

• ID 559: The trophic status of the Bakhadda Dam Lake using physico-chemical analysis and trophic index.
Ghiles Smaoune, Djaouida Bouchelouche, Nassima Doukhandji, Abdeslem Arab

• ID 518: Multivariate statistical techniques to evaluate spatial variations in water quality Case study: West-Central Algeria.
Ismahane Adaouri, Amin Chaffai, Siham Arab, Djaouida Bouchelouche, Somia Hamil, Ikram Nassrouche, Safia Akli-bidi, Abdeslem Arab

• ID 227: Urban wastewater treatment by infiltration percolation: Comparative study of the purification performance of sand filter through a simple and double column
Feryel Hajjaji, Saiededdine Eturki

• ID 315: Valorization of oilfield produced water on the recovery of valuable salt.
Hassan Elgharbi, Mohamed Triki, Ridha Amdouni, Subrata Borgohain Gogoi, Monem Kallel

• ID 85: Seepage velocity mapping using ArcMap/GIS software
Qais Al-madhlom, Nadhir Al-ansari, Hussain Musa Hussain, Jan Laue

• ID 147: Seepage simulation of flow through an Earthen Dam for a sustainable management and environment protection (Case Study: Harreza Dam - Algeria)
Mustafa Chouireb, Abdelkader Dje hiche
ID 390: Tomato growth promotion induced by Meyerozyma guilliermondii strain INAT (KU710283) in controlled conditions
Zayneb Kthiri, Maissa Ben Jabeur, Walid Hamada

ID 76: Quinoa Rehamna project: high yielding quinoa cultivars introduction
Abdelaziz Hirich, Redouane Choukr-allah, Mohamed El Gharouss, Sifeddine Rafik, Juan Pablo Rodriguez Calle, Manal Mhada, Khalil El Mejahed, Fatima Azaykou, Kaoutar Filali

ID 109: Quinoa value chain and marketing assessment in Morocco
Abdelaziz Hirich, Meriem Chaoui, Yassin Assabban, Salima Jazi, Redouane Choukr-allah, Mohamed El Gharouss, Sifeddine Rafik, Manal Mhada

ID 463: The effect of phosphorus fertilization on pepper growth and production under saline conditions
Sara Attaoui, Mohammed Oulahraoui, Redouane Choukrallah, Mohamed Fallah, Khalid Azim

ID 21: MultispeQ for tracing biostimulants effect on growth promoting and water stress tolerance in wheat
Maissa Ben-jabeur, Ruben Vicente, Adrian Gracia Romero, Zayneb Kthiri, Shawn Carlisle Kefauver, Maria Dolores Serret, Jose Luis Araus Ortega, Walid Hamada

ID 382: How peri-urban agriculture can contribute to the sustainable development of a mid-sized city? The case of Sahline (Tunisia)
Rawnek Slama, Christophe Soulard, Hichem Rejeb

ID 429: Agriculture and Land Stewardship: Can it help move from an Uncertain Present to a Sustainable Future
Katherine Ann Spanos

ID 13: Social Responses on Mediterranean Fish-kills
John A. Theodorou, George Katselis, Evangelos Dimitriou, Dimitra Rizou, Ioannis Tzovenis

ID 475: The earthworm fauna of Chréa National Park (Algeria)
Lahcen Zerrouki, Warda Essarhane, Somia Hamil, Mounia Baha

ID 203: The distribution of soil fauna in the forest of Theniet El Had.
Mohamed Nadjib Benzhora, Soumia Hamil, Mounia Baha

ID 573: Efficiency Of Alkaloids Crude Extract Of Cinnamomum Zeylanicum As Corrosion Inhibitor Of Mild Steel In Sulfuric Acid Solution
Souda Djelali, Hana Ferkous, Rachid Sahraoui, Sara Meharga

ID 479: CHEMICAL ANALYSIS AND METAL CHELATING POWER OF CRUDE EXTRACTS FROM THREE MEDICINAL PLANTS: Cistus creticus, Cinnamomum Zeylanicum and Rosmarinus Officinalis
Souda Djellali, Rachid Sahraoui

ID 429: Comparing chemical composition and phenolic compounds of some herbas as potential feed additives in ruminant Nutrition
Samir Medjekal, Mouloud Ghadbane, Souhil Boufennara, Laid Benderradji, Raul Bodas, Hacène Bousseboua, Secundino Lopez

ID 366: In vitro multiple solution extracts from leaves of Artemisia judaica L. var. sahariensis (L. Chevall.) collected from the Algerian Sahara and its antimicro-bial activities against pathogenic microorganisms
Laid Benderradji, Mouloud Ghadbane, Noura Messaoudi, Lydia Elhadef Eloki

ID 322: Pomegranate peel powder as a green eco-friendly corrosion-inhibitor for steel rebar’s embedded in cement paste
Imen Assadi, Marwa Trimeche, Walid Elfalleh, Aymen Amine Assadi, Ali Ferchichi, Naceur Etteyeb

ID 264: Controlling the porosity and strength of liquefied spruce tree sawdust based carbon foams via changing surfactant amount
Adife Seyda Yargic, Nurgul Ozbay
Session: T6-PS3 - Screen 1
Poster Hall

ID 233: Mediterranean seaweeds as a source of bioactive compounds: case study of some red algae (Rhodophyta) from north coast of Tunisia
Imen Hmani, Leila Ktari, Amel Ismail, Cheima M’dallel, Monia El Bour

ID 217: Effect of incorporating natural sweeteners in jams on appetite, palatability and consumers’ acceptance
May Ouhaibi, Sarra Jribi, Hajer Debbabi

Session: T6-OS3
Big Hall

ID 401: Biosorption of methylene blue from aqueous solution by plant residues
Djamila Youcef, Farida Fernane, Amel Hadj-ziane, Yasmine Messara

ID 157: Survey of seawater in the coastal area of the Black Sea in front of Cape Galata (Bulgaria)
Slava Dineva

ID 458: Varna Bay (Bulgaria): Research based on water-related challenges
Slava Dineva

ID 523: Water balance estimation in semi-arid Mediterranean watersheds using SWAT model
Yassine Bouslihim, Aicha Rochdi, Namira El Amrani Paaza

ID 394: Water quality assessment of Beni Haroun dam in the northeast of (Algeria) by Canadian Council Ministers Environment (CCME) index and trend analysis
Ahmed Amin Soltani, Abdelmalek Bermad, Hamouda Boutaghe, Mahmoud Hasbaia

ID 319: Wadi Wastewater Flowing Effects on the Spring Water Quality of Sarida Catchment – West Bank
Marwan Ghanem, Waseem Ahmed

ID 438: Contaminants of Emerging Concern in (Waste)Water: Evaluating the Knowledge Status Among Decision-makers and Stakeholders in Tunisia
Olfa Mahjoub, Loubna Benyahya, Despo Fattakassinos, Serge Chiron, Elke Fries, Sarantuyaa Zandaryaa

ID 171: Hydrogeochemical investigation of the Apennine carbonate springs by factor analysis
Francesco Rufino, Gianluigi Busico, Emilio Cuoco, Matteo De Santis, Dario Tedesco

ID 299: Impact of recharging structures on the piezometry of the Grombalia groundwater
Rym Mhamdi, Mohamed Mechergui

ID 17: Seepage velocity of different groundwater aquifers in Halabja Saisadsiq Basin-NE of Iraq
Twana Abdullah, Salahaldin Ali, Nadhir Al-ansari, Sven Knutsson

ID 377: Effect of magnetic treatment of irrigation water on spinach matador (Spinacia oleracea L) growth and soil characteristics
Hsan Youssef Mehdaoui, Nadia Castanheira, Manuela Roldao Oliveira, Salma Mseddi, Maria Da Conceicao Goncalves, Monem Kallel

ID 152: Origin of high fluorine contents in drinking water in the province capital of Isparta, SW Turkey
Nevzat Özgür

ID 158: Origin of high fluorine contents in drinking water in the province capital of Isparta, SW Turkey
Nevzat Özgür
ID 214: Soil organic matter rate inside the Jessours soil in the Matmata mountainous region  
Habib Lamourou, Nisaf Karbout, Zied Zriba, Mohamed Moussa

ID 476: Sandstone soils of the cedar forests of the Aures (Alge-ria): characteristics, water reserve and incidence on the hydric balance assessment  
Saliha Halitim, Amor Halitim

ID 515: Land degradation assessment in the dry areas of Tunisia case study: Wadi Koutine watershed  
Mongi Ben Zaied, Mohamed Ouessar, Messaoud Guied, Hedi Kerdi

ID 250: Modelling of the soil organic fraction in a limestone deposit within a Mediterranean environment  
Hatem Ibrahim, Nadhem Brahimi, Didier Blavet, Marc Pansu

ID 360: Intensity of chemical weathering over three meta-igneous rocks: Importance for trace metals enrichment in soil profiles  
Saheed Oke

ID 298: Water quality assessment of the shallow and deep aquifers of Hajeb Layoun-Jelma basin (Central Tunisia)  
Soumaya Aouiti, Fadoua Hamzaoui Azaza, Mounira Zammouri, Monji Hamdi, Fulvio Celico

ID 137: Artificial neural networks: intelligent approach to simulate groundwater level pattern  
Malek Derbela, Issam Nouiri

ID 519: Analytical hydrological model for the planning and design of low impact development practices  
Sonia Hassini, Yiping Guo

ID 207: Water management and retention opportunities along the Hungarian section of the Drava River  
Ali Salem, József Dezsoč, Mustafa El-rawy, Dénes Lóczy

ID 202: Integrated ensemble weight of evidence and logistic regression for potential groundwater mapping: an application to the northern piedmont of High Atlas Mountains (Morocco)  
Hassane Rahali, Siham Elaryf, Hicham Amar, Bouchra Zellou
ID 526: Synthesis and application of Algerian natural kaolin modified 13X zeolite for the treatment of real textile effluent
Asma Dhiffalah, Fatima Zohra El Berrichi, Nor El Houda Fardjouaoui, Ibtissem Slatni, Ammar Maoui, Brahim Gasmi, Joelle Duplay, Malika Ghazi

ID 538: 2-(2-Methoxybenzylidene) Hydrazine-1-Carbothioamide as efficient organic inhibitor for mild steel in hydrochloric acid solution
Hana Ferkous, Souad Djellali, Rachid Sahraoui, Hamza Behlou, Khaoula Saoud, Alaaddin Çukurovali

ID 541: Thermodynamic and electrochemical studies of corrosion inhibition of carbon steel by Rosmarinus officinalis extract in acid medium
Amina Belakhdar, Hana Ferkous, Souad Djellali, Yasser Ben Amor, Hana Lahbib

ID 141: TiO2 Supported on clay –cement hybrid materials and wood fibers as photocatalyst for phenol photodegradation
Latifa Morjène, Minoo Tasbihi, Michael shwarze, Fadhel Aloulou, Mongi Seffen

ID 5: Echophysiology of camel ovarian functioning at Algerian extreme arid conditions
Djallel Eddine Gherissi, Zoubir Bouzebda, Farida Bouzêbda-afri, Amina Gherissi, Abdlatif Miloudi

ID 84: Linking livestock production and wild biodiversity: Contribution of pastoral production systems to the habitat of bird priority conservation species.
Oscar Blumetto, Andrés Castagna

ID 258: Padina pavonica and Jania rubens associated bacteria: biodiversity and antibacterial potential
Amel Ismail, Leila Ktari, Mehboob Ahmed, Radhia Mraouna, Imen Hmani, Abdellatif Boudabous, Monia Elbour

ID 280: Impact of Dietary Fibers on The Biochemical Markers Of Bone Remodeling In Hemodialized Post-Menopausal Women (Algeria)
Fatima Mehenni, Boumediene Meddah, Aicha Tir Touil Meddah

ID 55: Chemical composition and activity of Lavandula angustifolia essential oil against stored-product pest Rhyzopertha dominica (F.) (Coleoptera: Bostrichidae): Fumigant toxicity, Food intake and Digestive enzymes
Samir Tine, Nardjis Sayada, Fouzia Tine, Noureddine Soltani

ID 135: Morphological and Phytochemical Characterization of the Different Parts of Pistacia lentiscus L. Fruits
Kaissa Boudieb, Sabrina Ait Slimane-ait Kaki, Hayet Amellal-chibane, Hakima Oulebsir-mohand Kaci
- ID 249: What’s left of the pear tree after the Fire Blight outbreak? An urgent need for germplasm preservation
  Mehdi Trad

- ID 240: Situation and environmental impacts of phytosanitary treatments for greenhouse vegetable crops in the region of Biskra (ALGERIA).
  Toufik Aidat, Salah Eddine Benziouche

- ID 205: Disperse Blue 1 removal using three formulations of cactus extracts: A comparative study with a chemical flocculent
  Bouthaina Othmani, Moncef Khadhraoui

- ID 537: Utilization of polymeric biocomposites for textile effluents remediation
  Saima Noreen, Haq Nawaz Bhatti

- ID 3: Enhancement of Potential Field Data for delineation of mineralized sections of Northwestern Nigeria
  Cyril Okpoli

- ID 161: Efficient conversion of rapeseed cake into bio-alcohol through pyrolysis
  Elif Yaman, Nurgül Özbay, Sinan Temel, Fatma Özge Gökmen

- ID 270: Pollution and physiological changes in the leaves of apricot plants
  Mohamed Zouari, Nada Elloumi, Monem Kallel, Bechir Ben Rouina
TRACK 7.
Smart technologies for environmentally friendly energy production

Responsible Track Chair
Jaya Narayan Sahu: Universität Stuttgart, Germany
11

11:00~12:30
OCT.

- ID 94: Free-methane: producing fuel from waste CO2 using renewable energies
  Stefano Falcinelli
- ID 167: Characterization of the inclusion of Polymer Mem-brane for Application as Electrolyte in Direct Methanol Fuel Cell System
  Kaoutar Aghmih, Imane Touarssi, Said Gmouh, Miloudi Hlaibi, Sanaa Majid
- ID 163: Deposition of Cd doped ZnO thin films as transparent electrode for solar cell applications
  Fatma Özge Gökmen, Sinan Temel, Elif Yaman
- ID 326: Utilization of Exhausted Oxygen from Nitrogen Plant to improve Sulfur Recovery Unit and reduce emissions _ Case Study
  Wahid Alzamzam, Walid Alfaghi

12

09:00~10:30
OCT.

- ID 356: Optimization of simultaneous production of bio-hydrogen and bio-methane from food wastes
  Mouna Yahya, Christiane Herrmann, Samir Ismaili, Carsten Jost, Achraf Ghorbal
- ID 369: Evaluation of the methanogenic potential of Tunisian vegetables and fruit wastes: biogas production and characterizations
  Samira Abidi, Gmar Bensidhom, Sanaa Amdouni, Mohamed Hechmi Aissaoui, Aida Ben Hassen Trabelsi
- ID 592: Study of thermal stability and characterization of the biodiesel from waste frying oil
  Mariem Harabi, Ana Inés Fernández, Mohamed Bouaziz
TRACK 8.
Remote sensing and GIS for environmental monitoring and management

Responsible Track Chair
Anthony Lehmann: University of Geneva, Switzerland
ID 44: Route Optimization for Waste Collection
Qiuyan Yuan

ID 51: Integrating multi-criteria evaluation techniques for olive mill wastewater pond selection with ordered weighted average approach (Sidi Bouzid region, Tunisia)
Wissal Issaoui, Abdelwaheb Aydi, Imen Hamdi Nasr, Marwa Mahmoudi, Tarek Abichou, Mohamed Hédi Inoubli

ID 223: GIS-based model for vulnerability and seawater intrusion risk assessment by combined chemical indicators and GALDIT tools: The case of a coastal aquifer in Monastir, Tunisia
Rihem Mejdoub El Fehri, Mahmoud Dlala, Lamia Kouzana

ID 562: Integration of ELECTRE III and AHP - Multicriteria decision analysis for identification of suitable areas for artificial recharge with reclaimed water
Marwa Mahmoudi, Nadhem Brahim, Abdelwaheb Aydi, Wissal Issaoui, Najet Shimi

ID 340: GIS-based RUSLE model for the soil erosion assessment in an arid zone: The case of Oued El Sourrag and Oued El Ferd watersheds
Emna Medhioub, Moncef Bouaziz, Samir Bouaziz

ID 88: Combining GIS applications and analytic hierarchy process method for landfill siting in Sulaimaniyah, Iraq
Karwan Alkaradaghi, Salahalddin S. Ali, Nadhir Alansari, Jan Laue

ID 551: Urban morphology and anthropogenic heat effect on land surface temperature: Bab Ezzouar (Algers) case study
Assia Fernini-haffif, Ewa Berezowska-azzag

ID 608: Assessing Land Degradation Neutrality (LDN) in Southeastern Tunisia based-on Earth Observation Data and Open Source Applications
Olfa Terwayet Bayouli, Bouajila Essifi, Mohamed Ouessar

ID 477: Production of a Land Cover/ Land Use (LC/LU) map of Izmir metropolitan city by using high-resolution images
Elif Sertel, Raziye Hale Topaloglu, Kubra Bahsi, Beril Varol, Neibiye Musaoglu

ID 95: The use of satellite image and GIS to monitor deforestation of Akure forest reserve and its environs, Ondo State, Nigeria
Michael Oyinloye, Fidelis Ado

ID 197: Trend analysis using Discrete Wavelet Transform (DWT) for non-stationary NDVI time series in Tunisia
Manel Rhif, Ali Ben Abbes, Imed Riadh Farah, Beatriz Martínez

ID 384: Map of the global pollution of the Algiers region established by the IAP method (Index of Atmospheric Purity)
Henia Saib, Mohamed Toumi

ID 96: Role of environmental variables on the distribution of the Burmese Python in Florida
Zella Conyers, Shouraseni Roy
- **ID 579**: A comparison between the two weighting methods ranking and rating in GIS-based PV site selection  
  Mazari Ait Kaci, Tammam Khadadj, Amel Alioua, Housseyn Medjahed, Fatma Belhoucine

- **ID 216**: Assessment of drought impact on surface water in the Mockes Dam of the Free State, South Africa, using remote sensing techniques  
  Saheed Oke, Silent Ruzvidzo

- **ID 294**: Ecologic-Economic Zoning of a small water catchment basin in Vacaria, southern Brazil  
  Vania Elisabete Schneider, Geise Macedo Dos Santos, Sofia Helena Zanella Carra, Denise Peresin, Taison Anderson Bortolin, Gisele Cemin

- **ID 156**: Evaluation of TRMM 3B42 V7 Rainfall Product in Morocco  
  Rachid Hadria, Adil Salhi, Tarik Ben Abdelouahab, Loubna Elmansouri, Hayat Lionboui, Hamza Ouatiki, Youssef Lebrini, Abdelaziz Htitiou, Rida Khellouk

- **ID 286**: Pilot activities in creating soil maps from satellite data – Struma river valley case study  
  Hristo Nikolov, Toma Shishkov
TRACK 9.
Environmental impacts of natural hazards and environmental risk assessment

Responsible Track Chair
Settimio Ferlisi: University of Salerno, Italy
• ID 509: The impact of environmental factors on the Diaphanosoma sp distribution in Ghrib Lake (Northern Algeria)
Somia Hamil, Siham Arab, Warda Essarhane, Mohamed Nadjib Benzohra, Mounia Baha, Abdeslem Arab

• ID 104: Water quality shapes freshwater macroinvertebrate communities in northern Tunisia
Noura Slimani, David Sánchez-fernández, Eric Guilbert, Moncef Boumaiza, Jean Thioulouse

• ID 498: Surface water quality assessment of lacustrine ecosystem case study of Boukourdane Dam, Algeria
Siham Arab, Somia Hamil, Ismahan Adaouri, Amin Chaffai, Ikram Nasrouche, Abdeslam Arab

• ID 511: Application of multivariate statistical analysis in the assessment of surface water quality in the hydrographic network of MazarfanWadi. Algeria.
Djaouida Bouchelouche, Hind Sefiane, Imane Saal, Mouna Hafiane, Abdeslem Arab

• ID 517: Study of water quality using multivariate analysis in coastal wetland of Réghaïa. Algeria.
Djaouida Bouchelouche, Imene Saal, Mouna Hafiane, Abdeslam Arab

• ID 605: Investigating extreme sea levels from the Meteorologically Induced Modulation along the English Channel coasts.
Imen Turki, Yasser Hamdi

• ID 373: Study of the risks of the tsunami at Tunisian coasts
Lassaad Sahli, Hatem Kanfoudi, Aicha Abbassi, Ridha Zgolli

• ID 556: Modelling flood risk in rural areas: the case of the Arbaa Taourirt centre (Morocco)
Adil Salhi, Abdelmonaim Okacha, Sara Benabdellouahab, Mahjoub Himi, Tarik Benabdellouahab, Albert Casas Ponsati

• ID 65: Probabilistic multi-hazard risk assessment – development of an aggregation model based on the algebra of events
Yasser Hamdi, Amine Ben Daoued, Nassima Mouhous-voynneau, Philippe Sergent

• ID 324: Coastal flooding risk assessment through Artificial Intelligence
Claudio Iuppa, Luca Cavallaro, Claudia Giarrusso, Rosaria Ester Musumeci, Giovanni Savasta

• ID 607: Development of a probabilistic multi-flood hazard approach considering uncertainties and climate change – Application to the coastal flooding of the Havre (France).
Amine Ben Daoued, Nassima Mouhous-voynneau, Yasser Hamdi, Philippe Sergent

• ID 269: Adding new information content to GNSS measurements by SAR data processing in studying a landslide
Mila Atanasova-zlatareva, Hristo Nikolov
ID 27: Sea Level Characteristics and Return Periods at Port Said Harbour, Egypt
Tarek El-geziry

ID 426: Soil erosion assessment and farmers’ perception in south Mediterranean basins: a Moroccan case study
Adil Salhi, Tarik Ben Abdelouahab, Yassin El Hasnaouï, Mhamed El Moussaoui, Abdelkarim El Morabit, Mahjoub Himi, Sara Ben Abdelouahab, Albert Casas Ponsati, Rachid Hadria, Javier Martin-vide

ID 472: Wildfires and socioeconomic variables in Galicia, Spain: Panel Data Analysis
Jaime De Diego, Mercedes Fernández, Antonio Rúa

ID 165: Hazardous materials prediction using an Artificial Neural Network and meteorological FASDAS data assimilation
Hosni Snoun, Hatem Kanfoudi, Ghazi Bellakhal, Jamel Chahed

ID 364: Prediction of earthquake-induced liquefaction state in embankment dams using back-propagation neural network
Abdelatif Zeroual, Messaoud Djeddou, Ali Fourar

ID 32: Assessment of static and seismic bearing capacity factors for shallow strip foundations using the discontinuity layout optimization procedure
Mohamed Khemissa, Imane Harzallah

ID 218: An environmental and financial risk assessment protocol for the investments in the energy sector
Antonio Nesticò, Gianluigi De Mare, Shuquan He, Gabriella Maselli
TRACK 10.
Sustainable management of marine and coastal environments

Responsible Track Chair
João Miguel Dias: University of Aveiro, Portugal
Session: T10-OS1
Room 3

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09:00~10:30

- ID 554: Characterization of deep-sea sediment microbial communities from different Mediterranean Sea regions
  Monia El Bour, Micha Rijkenberg, Aymen Saadi, Maria Virginia Martins, Noureddine Zaaboub

- ID 255: Sedimentary phosphorus dynamics in Mediterranean Rhône River prodelta: data-modelling approach
  Fatima Ezzahra Ait Ballagh, Christophe Rabouille, Françoise Andrieux-loyer, Karline Soetaert, Khalid Elkalay, Karima Khalil

- ID 325: Characterization and dynamics of the pollutant load discharge carried by the Mazafran River (N Algeria) on the coastal environment
  Zenati Billal

Session: T10-OS2
Room 3

12
11:00~12:30

- ID 132: Socio-economic and ecological situation of Mogador Marine Protected Area in Morocco
  Ghoufrane Derhy, Khalid Elkalay, Nezha Ait Taleb, Zainab Damsiri, Karima Khalil

- ID 252: Moroccan Atlantic marine research state of the art a review analysis
  Khalid Elkalay Khalid, Hanane Rhomad, Zainab Damsiri, Hassan Essekhyr, Ghoufrane Derhy, Karima Khalil

- ID 144: Zooplankton abundance and community structure driven by tidal exchanges with the sea in a Mediterranean coastal lagoon (Boughrara, Gulf of Gabès, Tunisia, SW Mediterranean Sea)
  Nouha Makhlfouf Belkahia, Marc Pagano, Mohamed Néjib Daly Yahia

  Thomas Brewer

- ID 330: Comparison of pixel-based and object-oriented classification methods for extracting built-up areas in coastal zone
  Chayma Kefi, Amina Mabrouk, Haythem Ismail

  Giancarlo Gusmaroli, Giuseppe Dodaro, Ileana Schipani, Claudio Perin, Franco Alberti, Stefano Magaudda

- ID 328: Repository of technical documents for a sustainable management of marine and coastal environments: the new portal www.coastalmapping.eu
  Tullia Valeria Di Giacomo, Francesco Paolo Di Giacomo

- ID 522: Understanding the source, distribution, and fate of micro- and nano-plastics in natural water bodies
  Valter Castelvetro, Andrea Corti, Alessio Ceccarini, Jacopo La Nasa, Tommaso Lomonaco, Enrico Manco, Francesca Modugno, Virginia Vinciguerra, Antonella Manariti

- ID 174: The Condition of the Red Alga Phyllophora crispa (Hudson) P.S. Dixon and Proposals for MPA Optimization in South-western Crimea, Black sea
  Vladimir Alexandrov, Nataliya Milchakova

- ID 132: The influence of sea surface temperatures on biodiversity of Gaeta Gulf, Italy
  Matteo Gentilucci, Adriano Madonna, Giulia Guerriero
• ID 8: Water Pollution Monitoring Study for Protected Areas at Eastern Mediterranean Sea, Turkey
  Nevzat Özgür

• ID 510: Microplastics (MPs) pollution in Sidi Youssef harbor of the Kerkennah Islands, Sfax (Tunisia)
  Khawla Chouchene, Teresa Rocha-santos, Mohamed Ksibi

• ID 293: Comparative study of various treatment processes of crude oil associated water produced from the Upper Assam Basin (India)
  Tapan Jyoti Gogoi, Subrata Borgohain Gogoi, Pranab Boral, Monem Kallel

• ID 512: Assessing the efficacy of dredged sediments from Zarzis harbor, Tunisia: implication to agriculture
  Afef Zouch, Mohamed Elwachem, Olfa Hentati, Mohamed Ksibi

• ID 284: Anti-oxidant and anti-enzymatic assessment of white shrimp, Metapenaeus monoceros by-product hydrolysates elaborated by bacterial proteases
  Sondes Mechri, Imen Sellem, Khelifa Bouacem, Fadoua Jabeur, Hocine Hacene, Samir Bejar, Amel Bouanane-darenfed, Bassem Jaouadi

• ID 213: New insight in marine biotechnology: carrageenans chemical features and acetylcholinesterase (AChE) inhibition activity of two edible seaweeds of the genus Kappaphycus
  Oladokun Sulaiman Olanrewaju, Giuseppina Tommonaro, Giulia Guerriero, Chiara Fogliano, Carmine Iodice, Gennaro Velotto, Annabella Tramice
TRACK 11.
Sustainable management of the urban environment

Responsible Track Chair
Constantinos Cartalis: National and Kapodistrian University of Athens, Greece
• ID 151: An economic model to assess the long-term implications for investments aimed at urban sustainability
  Antonio Nesticò, Gabriella Maselli

• ID 486: Integrating plants and trees in the design of urban parks in Marseille  Subtitle: Greening the practice of landscape designers
  Brice Dacheux-auzière, Yves Petit-berghem

• ID 191: Urban morphology and solar gains in cities with warm Mediterranean climate: Comparison of two collective residential complexes in Tunis, Tunisia
  Nour El Houda Jouini, Fakher Kharrat, Safa Achour-younsi

• ID 188: Numerical study of Traffic Noise Dispersion Based on the Coupling between First Order Traffic Model and French Noise Prediction Method
  Hana Mosbahi, Abdessalem Jbara, Emna Khamassi, Khalifa Slimi

• ID 521: Recycling way of sludge in handcraft pottery (Marrakesh, Morocco)
  Rachida Bouachera, Mariam El Aoud, Rachida Kasimi, Mounisif Ibnoussina, Yassine Taha, Hicham El Boudour El Idrissi, Rachid Hakkou

• ID 385: Municipal sewage sludge energetic conversion as a tool for environmental and economic sustainability: production of innovative biofuels and economic biofertilizer
  Aïda Ben Hassen Trabelsi, Athar Friaa, Samira Abidi, Slim Naoui, Faycel Jamaaoui
TRACK 12.
Sustainable management of the indoor and built environment

Responsible Track Chair
Benigno Sánchez Cabrero: FOTOAIR-CIEMAT, Analysis & Photocatalytic Treatment of Pollutants in Air, Madrid, Spain
• ID 253: Sustainable preservation of the built environment: a case study of the historic centre of Oporto
  Sílvia Alves, Juan Sendra

• ID 596: Improvement of classroom conditions and CO2 concentrations through natural ventilation measures reinforced with NBS implementation
  Jose Fermoso, Teba Torres, Miguel Ángel Antón, Alejandro Peña, Jesús Muñoz, Salustiano Torre, Teresa Batista, Ricardo Osorio De Barros
TRACK 13.
Environmental-change-related impacts on human health

Responsible Track Chair
Georgios Nikolopoulos: University of Cyprus, Nicosia, Cyprus
ID 545: ASSESSMENT OF THE BACTERIAL POLLUTION IN THE DISTRIBUTION NETWORK / CASE STUDY OF SOUK AHRAS TOWN, ALGERIA
Mohamed Amine Bensoltane, Lotfi Zeghadnia, Abdelkrim Guebail, Ahmed Salah Araibia, Lakhdar Djemili

ID 180: An integrated framework of environmental physics and epidemiology: the Biometeorological Aspect of Thermal environment and Health project (BeAT Heat)
Katerina Pantavou, Spyridon Lykoudis, Filippos Tymvios, Emily Vasiliadou, Kleanthis Nicolaides, Chrysanthsos Savvides, Panayiotis Yiallouros, Constantinos Cartalis, Georgios Nikolopoulos

ID 154: Influence of monthly temperatures on the intra-annual distribution of autochthonous malaria in Spain
Arturo Sousa, Julia Morales, Mark Vetter, Mónica Aguilar-alba, Leoncio García-barrón

ID 35: For a better Literacy of Tunisians in Ecohealth: Leishmaniasis Case
Foued Maaoui, Imen Moumni, Lasaad Mouelhi

ID 200: Relationship between anthropometric parameters and hypertension in an Algerian adult population according to BMI, Waist Circumference and Waist to Height Ratio
Salima Taleb, Kafila Boulaba, Ahlem Yousfi, Nada Taleb, Basma Difallah, Samira Negrichi
• ID 98: Novel sensor chip for IoT/M2M and LTE/3G network Based Water Quality Monitoring for Off-Grid Water Systems
Mokhtar Guizani, Shenxing Wang, Ryusei Ito, Masayoshi Johmen, Ken Ushijima Ushijima, Toshikazu Kawaguchi, Naoyuki Funamizu

• ID 349: Health risk assessment of occupational exposure to perchloroethylene and trichloroethylene in dry cleaning in Sfax city (Tunisia)
Fatma Omrane, Moncef Khadhraoui, Boubaker Elleuch, Imed Gargouri

• ID 248: Assessment of potential health hazards of trace elements contamination of groundwater in a shallow aquifer: A case study in Guenniche (Northern Tunisia)
Nizar Troudi, Fadoua Hamzaoui – Azaza, Ourania Tzoraki, Mounira Zammouri

• ID 423: Effects of outdoor air pollution on human health in Mohammeda, "Morocco".
Rachida El Morabet, Abderrahmane Adoui El Ouadrhiri, Roohul Abad Khan, Said Mouak, Mohamed Aneflouss

• ID 387: Glycol Ethers in Water Based Products: Determination and Evaluation According to European Directives.
Faycal Faidi

• ID 16: “This heat is killing”: Perception of heat stress among elderly women in Ibadan, Nigeria
Tolulope Osayomi, Rebecca Chineokwu Ugwu

• ID 182: The potential of green areas exposure on increasing people’s physical activity
Silvestre García De Jalón, Aline Chiabai, Sonia Quiroga, Cristina Suárez, Pablo Martínez, Timothy Taylor

• ID 343: Genetic, environmental and dietary risk factors of colorectal cancer: A case-control study in the Algerian East
Samira Negrichi, Salima Taleb

• ID 357: Antimicrobial activity of oak wood against nosocomial Acinetobacter baumanni of human and animal origin: A One-Health Approach
Muhammed Tanveer Munir, Christophe Belloncle, Florence Aviat, Michel Federighi, Mattieu Eveillard, Helene Pailhories
Euro-Mediterranean Journal for Environmental Integration

- A forum for research and collaboration on emerging environmental issues in the Euro-Mediterranean region
- Presents original research, reviews and letters
- Offers innovative approaches toward a sustainable environment in the Mediterranean region

Start reading on link.springer.com
International Conference on Sustainable Energy-Water-Environment Nexus in Desert Climate 2019

( ICSEWEN19)

2-5 December 2019
Qatar National Convention Centre,
Doha, Qatar

Qatar Environment and Energy Research Institute (QEERI) is organizing a specialized international conference in December 2019 to address the challenges and opportunities in the Energy-Water-Environment (EWE) nexus, in particular the research and technology development requirements for EWE nexus in harsh desert climates.

Over 300 researchers, scientists, engineers, and stakeholders are expected to attend the three-day event, which will be held at Qatar National Convention Centre from 2-5 December 2019.

The main goal of this conference is to bring together international experts from academia and industry, as well as relevant stakeholders to share the latest research, innovations and technology developments.

Discussions will be aimed at promoting a better understanding of the links between energy, water and environment to develop key priority areas for human development and environmental sustainability.

Specific Aims:

› To identify areas of collaboration on issues at the EWE nexus on a regional and international scale, and associated technology development and innovative approaches.

› To understand the challenges and barriers, and develop potential solutions for relevant issues in the implementation of research in the area of EWE.

› To exchange ideas and share knowledge with experts and policymakers from around the world.

› To bridge the gap between research and industry and address socio-economic impacts.

› To highlight the research capacity and capabilities relevant to Qatar and the region.

For details of the technical and social program, and for registration information, please visit: https://www.hbku.edu.qa/en/qeeri-ICSEWEN19
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