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**GEST 2024**

November 04-06, 2024 | London

Global Conference on

# Environmental Science and Technology



November 04-06, 2024 | London, UK



Renaissance London Heathrow Hotel

# Program



✉ [gest@uniscigroup.org](mailto:gest@uniscigroup.org)

🌐 <https://gest.unitedscientificgroup.org/>

Join Zoom Live Stream

<https://us06web.zoom.us/j/82117271204?pwd=as62clZDxb4QAukeQV8aidqC0QK6Cw.1>

Meeting ID: 821 1727 1204

Passcode: 819739

09:00-09:20 Registrations & Badge Pickup

09:20-09:30 Opening Ceremony

## Keynote Presentations

@Windsor

**Moderator:** **Monica Rivas Casado**, Cranfield University, United Kingdom



09:30-10:00  
**Paul Ekins**, University College London, United Kingdom  
**Mitigating Climate Change: A Reality Check**



10:00-10:30  
**Jason Hall-Spencer**, University of Plymouth, United Kingdom  
**The Ecosystem Effects of Ocean Acidification**

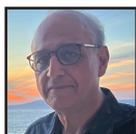


10:30-11:00  
**Mira Petrovic**, Catalan Institute for Water Research (ICRA), Spain  
**Urban Runoffs: Investigating Chemical Changes During Extreme Weather Events**

11:00-11:30 Coffee Break Near Windsor Suite



11:30-12:00  
**Luiza Cintra Campos**, University College London, United Kingdom  
**Sustainable Microplastics Remediation: Addressing Challenges and Exploring Effective Solutions**



12:00-12:30  
**Hamid R. Habibi**, University of Calgary, Canada  
**Assessment and Adverse Health Impact of Environmental Contaminants in Southern Alberta, Canada**

12:30-12:40 Group Photo

12:40-13:30 Lunch Break @Market Garden Restaurant

## Session I

@Windsor

**Chair:** **Luiza Cintra Campos**, University College London, United Kingdom

### Environmental Pollution: Causes and Control

13:30-13:50 **Patricio Perez**, University of Santiago, Chile  
**The Effect of a Copper Foundry on SO<sub>2</sub> Levels in Small Coastal City in Chile**

13:50-14:10 **Lei Tong**, China University of Geosciences, China  
**Environmental Pollution and Transport of Antibiotics in Riparian Zone**

14:10-14:30 **Bruna Gumiero**, University of Siena, Italy  
**Citizen Science Activities in Monitoring River Ecosystems Means Many Benefits**

## Environmental Technology

14:30-14:50 **Eri Yoshida**, Toyohashi University of Technology, Japan  
**Reversible Capture and Release of Carbon Dioxide Using Polyamine**

14:50-15:10 **Albert Bosch**, University of Barcelona, Spain  
**Enterovirus Surveillance in Spanish Wastewater in the Present Situation of Polio Eradication**

15:10-15:30 **Rosa Pinto**, University of Barcelona, Spain  
**Learning SARS-CoV-2 Variant Dynamics Through Wastewater Surveillance**

15:30-15:50 **Aree Choodum**, Prince of Songkla University, Thailand  
**Eco-friendly Adsorbent for Dye Removal**

15:50-16:10 **Worawit Wongniramaikul**, Prince of Songkla University, Thailand  
**Integrated Biodegradable Material for Augmented Nitrate Removal in Water**

16:10-16:30 **Coffee Break** Near Windsor Suite

16:30-16:50 **Palash Kumar Mollick**, University of the Basque Country, Spain  
**Recovery of Hydrogen Fuel from Waste Plastic Using DC Thermal Plasma**

16:50-17:10 **Monica Rivas Casado**, Cranfield University, United Kingdom  
**Emerging Technologies and Flood Management**

## 17:10-18:00 Poster Presentations

**P-01** **Dohee Kwon**, Hanyang University, Republic of Korea  
**Strategic Conversion of Plastic Containers with Food Waste into Energy Through Thermo-Chemical Processes**

**P-02** **Jung-Hun Kim**, Hanyang University, Republic of Korea  
**Conversion of Toxic Chemicals into Syngas Through CO<sub>2</sub>-assisted Catalytic Pyrolysis of Insulation Material Waste**

**P-03** **Tarawee Taweekarn**, Prince of Songkla University, Thailand  
**Impact of Calcium Silicate Hydrate Content in Porous Concrete Composites on Continuous Flow Phosphate Removal from Water**

**P-04** **Brian Blankespoor**, The World Bank, USA  
**Toward Better Conservation: A Spatial Analysis of Species Occurrence Data from the Global Biodiversity Information Facility**

**P-05** **Sitara Anjum**, University of the Punjab, Pakistan  
**Harmful Impacts of Synthetic Chemical on Endocrine System by Using Cosmetic**

**P-06** **Montri Choowong**, Chulalongkorn University, Thailand  
**Historical and Modern Records of Coastal Disasters from the Andaman Sea and Gulf of Thailand; Progress in Geological Research and Mitigation**

**P-07** **Ankit Kumar**, Concordia University, Canada  
**Flood Risk Mapping for Improved Risk Assessment and Mitigation: The Case Study of the Montreal Region, Canada**

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## Session II

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**Chair:** Hamid R. Habibi, University of Calgary, Canada

### Environmental Impact Assessment

- 09:00-09:20 **Matthew Bellgard**, University of East London, United Kingdom  
**Impact Assessment (IA) 5.0: Open Source Frameworks to Enable the Transition from Project-Level IA to Addressing 21<sup>st</sup> Century Global Drivers**
- 09:20-09:40 **Susanne Heise**, Hamburg University of Applied Sciences, Germany  
**Effects of the Rare Earth Elements on Freshwater Organisms**
- 09:40-10:00 **Lieven Bervoets**, University of Antwerp, Belgium  
**Per- and Polyfluorinated Substances (PFAS) in the Environment near a Hot-spot in Antwerp (Belgium): 25 Years of Research on Distribution, Accumulation and Effects**
- 10:00-10:20 **Beata Paliwoda**, Poznan University of Economics and Business, Poland  
**Environmental Performance Indicators in EMAS-registered and Non-EMAS-Registered Organizations**

### Environmental Modelling

- 10:20-10:40 **Michele Mossa**, Polytechnic University of Bari, Italy  
**Jet-like Flows in a Vegetated Sea and River Current**

10:40-11:00 **Coffee Break**

Near Windsor Suite

## Session III

@Windsor

**Chair:** Mira Petrovic, Catalan Institute for Water Research (ICRA), Spain

### Climate Change: Challenges and Mitigation

- 11:00-11:20 **Susmita Dasgupta**, The World Bank, USA  
**Identifying and Monitoring Priority Areas for Methane Emissions Reduction**

### Ecosystem Services and Biodiversity Conservation

- 11:20-11:40 **Brian Blankespoor**, The World Bank, USA  
**Estimating Extinction Risks with Species Occurrence Data from the Global Biodiversity Information Facility**

## Hydrology and Water Resource Management

11:40-12:00 **Joe Magner**, University of Minnesota, USA  
**Climate Change, Agricultural Drainage and Water Storage in the Upper Midwestern USA**

## Circular Economy

12:00-12:20 **Madeleine Larsson**, Linköping University, Sweden  
**Towards a More Circular Biobased Economy and Nutrient Use - The Role of Biogas Systems**

12:20-12:40 **Hans Andersson**, Linköping University, Sweden  
**Biofertilisers from Biogas Plants - A case for more Efficient Nutrient Recycling**

12:40-13:40 **Lunch Break** @Market Garden Restaurant

## Session IV

@Windsor

**Chair:** **Mira Petrovic**, Catalan Institute for Water Research (ICRA), Spain

## Remote Sensing and Geoinformatics

13:40-14:00 **Michael P. Peterson**, University of Nebraska at Omaha, United States  
**Visualizing Climate Change: Depicting Change in a Changing World**

## Sustainable Energy Transitions

14:00-14:20 **Reto Spielhofer**, Norwegian Institute for Nature Research, Norway  
**Spatial Optimization for Wind Energy Planning**

## Soil Health Management

14:20-14:40 **Jordan Vink**, University of New South Wales, Australia  
**Developing the First Toxicity Test for Antarctica Using an Endemic Fungal Species**

## Agroecosystems and Environment

14:40-15:00 **Yasuo Mitsui Nakamaru**, Tokyo University of Agriculture, Japan  
**Does Increased Use of Organic Fertilizer Threaten Aquatic Ecosystem?**

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08:20-08:30 **Opening Remarks and Introduction**

**Chair:** Vilim Filipovic, The University of Queensland, Australia

## Keynote Presentations



08:30-09:00

**Ivet Ferrer**, Polytechnic University of Catalonia, Spain  
**Bio-based Products and Bioenergy Recovery from Waste Streams in the Framework of a Circular Bioeconomy**

## Session I

09:00-09:20 **Myung Geol Pang**, Chung-Ang University, Republic of Korea  
**Multigenerational and Transgenerational Impacts of Endocrine Disrupting Chemicals on Male Reproduction**

09:20-09:40 **Andrzej R. Reindl**, Medical University of Gdansk, Poland  
**Rare Earth Element Dynamics- Implications for Environmental Toxicology and Human Health**

09:40-10:00 **Trine Eggen**, Norwegian Institute of Bioeconomy Research (NIBIO), Norway  
**Sustainable Management of Organic Materials with High Pesticide Content from Flower and Greenhouse Industry**

10:00-10:20 **Elsai Mati Asefa**, Haramaya University, Ethiopia  
**Assessing the Impacts of Pesticide Use on Freshwater Ecosystems in Sub-Saharan Africa: Insights from Agroecosystems in Ethiopia**

10:20-10:40 **Sarit Agami**, Hebrew University of Jerusalem, Israel  
**Atmospheric Conditions Leading to Buildup of Benzene Concentrations in Urban Areas in Israel**

10:40-11:00 **Coffee Break**

**Chair:** Milena Zivkovic, University of Kragujevac, Serbia

## Session II

11:00-11:20 **Milena Zivkovic**, University of Kragujevac, Serbia  
**Assessment of Soil Composition and Radioactivity in Central Serbia: Mechanical, Chemical, and Elemental Analysis**

11:20-11:40 **Laura Megido**, University of Oviedo, Spain  
**Should Settleable Particulate Matter be Incorporated into Pollution Control Strategies?**

11:40-12:00 **Alba Ardura**, University of Oviedo, Spain  
**Rivers: Source of Energy and Preservation of Biodiversity, is this Possible?**

- 12:00-12:20 **Maria Del Pilar Fernandez Poyatos**, University of Jaen, Spain  
**Degradation of Organic Pollutants from Water Using a Cobalt Ferrite Catalyst**
- 12:20-12:40 **Inmaculada Velo Gala**, University of Granada, Spain  
**Visible-light Photocatalytic activation of Chlorine by Graphite Carbon Nitride for Water Treatment**
- 12:40-13:00 **Silvio Coda**, University of Naples Federico II, Italy  
**Assessment of Groundwater Flooding Susceptibility and Hazard Through Machine Learning Techniques and Probability Modelling**
- 13:00-13:10 **Stavroula Panagiotidou (Poster)**, Technical University of Crete, Greece  
**Syngas Production Rich in H<sub>2</sub> from Steam Gasification of Agro-industrial Wastes, Integrated with CO<sub>2</sub> Capture by Concrete Wastes and Use of Potassium and Red Mud Catalysts**

13:10-13:50 **Lunch Break**

**Chair: Joao P M Torres**, Federal University of Rio de Janeiro, Brazil

### Session III

- 13:50-14:10 **Joao P M Torres**, Federal University of Rio de Janeiro, Brazil  
**Environmental Pollution in Brazil: X-Ray Fluorescence and Mass Spectrometry to go Beyond Heavy Metals, POPs in Fish and Bird Feathers and the Amazon Gold Rush**
- 14:10-14:30 **Elena Orlo**, University of Campania Luigi Vanvitelli, Italy  
**Eco-genotoxicity and Oxidative Stress of Polystyrene, Acyclovir and Imidacloprid in Ceriodaphnia Dubia**
- 14:30-14:50 **Chiara Russo**, University of Campania Luigi Vanvitelli, Italy  
**Combination of Polystyrene Microplastic Particles with Pesticides and Antiviral Drugs: Eco-genotoxicity in Ceriodaphnia Dubia**
- 14:50-15:10 **Pilar Sandin Espana**, Spanish National Research Council, Spain  
**Considering the Stereoisomerism of Chiral Herbicides in the Environment. Profoxy Dim Case Study**
- 15:10-15:30 **Natasha Picone**, National University of the Center of the Buenos Aires Province, Argentina  
**Urban Climate: How it Can Boost the Development of Sustainable Cities?**
- 15:30-15:50 **Coffee Break**
- 15:50-16:10 **Jean Philippe Bellenger**, University of Sherbrooke, Canada  
**Large-Scale Biomonitoring of Multiple Contaminants in Atmospheric Deposition in Eastern Canada**
- 16:10-16:30 **Maria Elena Mendez Lopez**, Center for Research in Geospatial Information Sciences, Mexico  
**Territorial Studies of the Mayan Milpa**
- 16:30-16:50 **Harris R. Eisenhardt**, Johns Hopkins university, USA  
**Review of Framework Development: Vulnerability of Unhoused Populations to Climate Change in the United States**
- 16:50-17:10 **Saima Farooq**, University of Nizwa, Oman  
**Heterogenous Semiconductor Photocatalysis for Wastewater Treatment**
- 17:10-17:20 **Belkys Polo-Cambronell (Poster)**, Industrial University of Santander, Colombia  
**Development of Nanofertilizers Based on Natural Zeolite for the Reduction in the Use of Conventional Fertilizers**

We Wish to See You at

# GEST-2025

Rome, Italy

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# 8105, Rasor Blvd - Suite #112, Plano, TX 75024

Tel: +1-469-854-2280/81; Fax: +1-469-854-2278;

**Email:** [gest@uniscigroup.org](mailto:gest@uniscigroup.org)

**Web:** <https://gest.unitedscientificgroup.org/>