

# 4TH INTERNATIONAL CONGRESS ON EARTH AND GEOLOGICAL SCIENCES

JULY 21-22, 2025  
PARIS, FRANCE



ISBN: 978-1-917892-13-1

**Website URL:**  
<https://unitedresearchforum.com/geology-earthscience/>



**ACCREDITED  
PROVIDER**  
#778533

Verify @ <https://theupdglobals.com>







## LETTER FROM THE CEO & DIRECTOR

On behalf of United Research Forum, UK, we are delighted to announce the organization of the 4th International Congress on Earth and Geological Sciences, to be held at the Van der Valk Hotel Paris CDG Airport from July 21-22, 2025.

Our goal is to provide an international platform where researchers and professionals from various fields of the health sector can come together to exchange ideas, discuss current trends, share research outcomes, and explore practical experiences.

We look forward to welcoming all of you to France and to hosting an exceptional meeting with distinguished scientists from around the world, sharing new and exciting developments across the diverse subjects covered by the conference.

We hope you enjoy your stay in France and encourage you to take this opportunity to explore the beautiful historical sites the country has to offer. Finally, I extend my best wishes for a successful and fruitful conference, and express sincere thanks to our partners and the organizing team for making this event possible.

A handwritten signature in black ink that reads "Dr. Vanga". The signature is fluid and cursive.

Sincerely,

**Dr. Vanga**

CEO, Director | United Research Forum United  
Kingdom

**Day -1  
Monday**

# **4<sup>th</sup> International Congress on Earth and Geological Sciences**

**July 21-22, 2025 | Paris, France**

**Registrations + Badge Pickup & Opening Cermony (08:30-09:00)**

## **Keynote Forum**

- |                    |   |
|--------------------|---|
| <b>09:00-09:30</b> | <b>Real-world consequences of High-Performance Competencies</b><br>Anthony Cockerill, University of Cambridge, United Kingdom               |
| <b>09:30-10:00</b> | <b>Simulation and optimization of a dual-axis solar tracking mechanism</b><br>Catalin Alexandru, Transilvania University of Brasov, Romania |
| <b>10:00-10:30</b> | <b>Urban mining for the recovery of critical metals from e-waste</b><br>Maria Holuszko, University of British Columbia, Canada              |

**Refreshment Break & Group Photo (10:30 - 10:50)**

## **Technical Session-I (10:50-12:55)**

- |                    |   |
|--------------------|---|
| <b>10:50-11:15</b> | <b>Bimodal Miocene volcanism in the Hegau region (SW Germany) produced nosean phonolites by differentiation of primitive melilititic-nephelinitic magmas</b><br>Thomas Binder, Eberhard Karls Universität Tübingen, Germany |
| <b>11:15-11:40</b> | <b>Exploring the Potential of Cost-Effective Mobile Laser Scanning and Photogrammetry in Mine Shaft Sinking Processes</b><br>Wojciech Rutkowski, PeBeKa S.A./AGH University of Krakow, Poland                               |
| <b>11:40-12:05</b> | <b>Quantitative flood disaster loss-resilience with the multilevel hybrid evaluation model</b><br>Shaohong Wu, Chinese Academy of Sciences (IC2MP), China   |
| <b>12:05-12:30</b> | <b>Synergistic chemical evolution of Fe-smectite and glycine during mineral crystallization</b><br>Rihab Fkiri, Institut de Chimie des Milieux et Matériaux de Poitiers (IC2MP), France                                     |

**Day -1  
Monday**

# **4<sup>th</sup> International Congress on Earth and Geological Sciences**

**July 21-22, 2025 | Paris, France**

**12:30-12:55**

**Mesozoic Intracontinental Deformation and Reactivation of the  
Southern Central Asian Orogenic Belt**

**Yiping Zhang, Chinese Academy of Geological Sciences, China**

**Lunch @ Restaurant (12:55 -14:00)**

**Technical Session-II (14:00-18:25)**

**14:00-14:25**

**Evaluation of wetlands as carbon sinks towards its contribution in  
offsetting GHG emission and climate change**

**Subir Kumar Nag, ICAR-Central Inland Fisheries Research Institute, India**

**14:25-14:50**

**The study of historical mortars from Notre-Dame de Paris cathedral**

**Jean Michel Mechling, University of Lorraine, France**

**14:50-15:15**

**Estimation of 3D Permeability from Pore Network Models  
Constructed Using 2D Thin Section Images in Sandstone Reservoirs**

**Chengfei Luo, CNOOC EnerTech – Drilling & Production Co, China**

**15:15- 15:40**

**Serpentinization of the oceanic lithosphere: Geological aspects and  
environmental impact**

**Toshio Nozaka, Okayama University, Japan**

**Refreshment Break (15:40-16:00)**

**Poster Presentations-I (16:00-16:30)**

**Poster 1**

**Assessment of Water Quality in Emergency Supply Wells: A Case  
Study from Kraków**

**Anna Szczepaniec, AGH University of Krakow, Poland**

**Poster 2**

**Assessment of Water Chemistry across the Podhale Basin (Southern  
Poland)**

**Marta Kusy, AGH University of Krakow, Poland**

**Poster 3**

**Variability of hydrogen, methane and carbon dioxide concentrations  
in soil gases along a geochemical profile across the Podhale Basin  
(Southern Poland)**

**Patrycja Wisińska, AGH University of Krakow, Poland**

**Day -1  
Monday**

# **4<sup>th</sup> International Congress on Earth and Geological Sciences**

**Poster 4**

**REE interferences in standard solutions – consequences for aqueous analyses by ICP-MS**

**Piotr Dzień, AGH University of Krakow, Poland**

**Poster 5**

**Validation of the ICP-MS method for lanthanum determination**

**Błażej Markowski, AGH University of Krakow, Poland**

**Technical Session-II Continues---**

**16:30-16:55**

**Mechanisms of surface disturbance induced by coal seam mining based on primary key strata analysis**

**Nan Wang, China University of Mining and Technology, China**

**16:55-17:20**

**Environmental sustainability assessment of a new food waste anaerobic digestion and pyrolysis hybridization system**

**Fuqing Xu, Xi'an Jiaotong University, China**

**17:20-17:45**

**Assessment and forecast of changes in Land use and land cover in Bulandy district (Kazakhstan)**

**Onggarbek Alipbeki, Al-Faraby Kazakh National University, Kazakhstan**

**17:45-18:10**

**Geochemical and REE Mineral Composition of the Rairakhol Alkaline Complex, Odisha, India**

**Nikita Ram, RMIT University, Australia**

**Day-1 Concludes**

**Pannel Discussions**

**Day -2  
Tuesday**

# **4<sup>th</sup> International Congress on Earth and Geological Sciences**

**July 21-22, 2025 | Paris, France**

<b>Keynote Talk 10:00-10:30</b>	<b>Crop water use and crop redistribution</b> Wenjiao Shi, Institute of Geographic Sciences and Natural Resources Research, Chinese Academy of Sciences, China
<b>10:30-10:55</b>	<b>Virtual Reality technologies in Geography education – Research result and experiences</b> Gyöngyi Bujdosó, University of Debrecen, Hungary
<b>10:55-11:20</b>	<b>Data Driven AI (Artificial Intelligence) detection furnish economic pathways for Microplastics</b> Shefali Arora, UPES, India
<b>11:20-11:45</b>	<b>TBA</b> Monika Suchowska-Kisielewicz, University of Zielona Góra, Poland
<b>11:45-12:10</b>	<b>Challenges and Opportunities in Northern Mendoza's Groundwater Management</b> María Laura Gomez, Argentine Institute for Arid Zones Research, Argentina
<b>12:10-12:35</b>	<b>Spatially explicit reconstruction of cropland cover in Europe from AD 1800 to 2000</b> Yu Ye, Beijing Normal University, China
<b>12:35-13:00</b>	<b>Biofilms as indicators of biogeochemical processes in groundwater</b> Litvinenko Zoia, Russian Academy of Sciences, Russia
<b>13:00-13:25</b>	<b>Experimental study of the impact of thunderstorms on ionospheric parameters</b> Valentina Antonova, Institute of Ionosphere, Kazakhstan
<b>13:25-13:50</b>	<b>Geo-inspired Fluorination of Layered Double Hydroxides: From Synthetic Clay-like Structures to Conversion Cathodes for All-Solid- State Lithium Batteries</b> Katia-GUERIN, UCA, France