

RawMat2021 Conference

2nd Announcement

RawMat2021

International Conference on Raw Materials and Circular
Economy

“Technological Developments and Future Challenges”

5 - 9 September 2021

4 September 2021: Pre-conference info/business day

Athens, Greece

www.rawmat2021.gr

RawMat2021 is organized by the Technical Chamber of Greece, the School of Mining and Metallurgical Engineering of the National Technical University of Athens and the Greek Raw Materials Innovation Cluster (GRawMat).

CO-ORGANIZERS

- Hellenic Ministry of Environment and Energy
- Association of Greek Mining Companies
- Hellenic Survey of Geology and Mineral Exploration
- Geotechnical Chamber of Greece
- Geological Society of Greece
- Scientific Society of the Mineral Wealth Technologists of Greece
- School of Mineral Resources Engineering, Technical University of Crete
- Department of Mineral Resources Engineering, University of Western Macedonia
- Department of Chemistry, Aristotle University of Thessaloniki

- Department of Geology and Geo-environment, National and Kapodistrian University of Athens
- Department of Geology, University of Patras
- Materials & Metallurgy Laboratory (METLAB), University of Patras

TOPICS

Following the demands and trends of modern society, *RawMat2021* shall address *a wide range of technological developments and future challenges* regarding Raw Materials with emphasis given on Circular Economy aspects. *RawMat2021* covers a broad list of topics as follows:

1. Minerals exploration and resource characterisation: new trends and advances

- Minerals prospecting
- Hydrocarbons exploration
- Raw materials resource assessment
- Advances in geostatistics, remote sensing and GIS applications in minerals exploration and resource characterisation
- Minerals and metals characterisation: novel methods and techniques
- Aggregates and natural stones characterisation

2. Mining: trends and perspectives

- Mine planning, scheduling and optimisation
- Investment planning, project evaluation and management
- Mine of the future and transition to Industry 4.0
- Smart mining: autonomous systems and the Internet of Things
- Mining in challenging environments
- Social and economic impact of mining
- Risk management in the mining sector
- Hydrocarbons extraction
- Aggregates: extraction, processing, uses and recycling
- Natural stones quarrying and processing methods

3. Mineral processing

- Advances - New equipment in ore beneficiation

- Processing of mining / metallurgical waste and end-of-life products for metals recovery
- Water management

4. Sustainable Metallurgy

- Advances in pyro-, hydro- and biohydro-metallurgy
- Recovery of elements from mining/metallurgical waste and by-products
- New trends on critical and noble elements recovery from mining, metallurgical and urban waste
- Refractories: innovations and advances
- Computational thermodynamics and kinetics
- Electrometallurgy (electrorefining and electrowinning)
- Solvometallurgy
- Archaeometallurgy
- Industry 4.0
- Decarbonation of metallurgical processes

5. Industrial Minerals

- New processing technologies
- Advanced exploration techniques
- Recycling and reuse of industrial minerals: the circular economy paradigm
- Industrial clays and their applications
- Environmental applications, products, and technologies
- Construction industry applications
- Industrial minerals in pharmaceuticals and cosmetics
- Industrial minerals for the extraction of critical and strategic metals

6. Environment, Energy and Sustainability

- Mining sites: environmental monitoring, assessment, and management
- Mine closure and land reclamation - Historical mine sites rehabilitation
- Mining in protected areas: ecosystems assessment, restoration, and management
- Social licensing for mining projects
- Risk analysis and Life Cycle Assessment (LCA)
- Mining/metallurgical waste management

- Waste characterisation and treatment of waste, effluents, soil and groundwater polluted by mining activities
- Nano-materials: technologies for environmental applications
- Carbon footprint of the raw materials value chain
- Energy savings in the mining and metallurgy sector
- Use of alternative fuels (renewables, hydrogen, etc.) in metallurgical plants
- Green minerals / wastes for energy storage

7. Reuse-Recycling and Valorisation

- New and innovative uses for by-products and waste of the mining/metallurgical Industry
- Industrial symbiosis
- Construction and demolition waste
- End-of-life products recycling

8. Education

- Future of education: artificial intelligence in education, ICT-based education
- Lifelong learning and mentoring
- STEM in geomaterials and metals teaching
- Geomaterials and metals in curriculum: Teaching Strategies
- Women in Geosciences and Geoengineering Education and Research

9. EU Strategy / Circular economy

- Critical and technologically important raw materials: current situation and prospects
- Roadmap for the transition to a circular economy
- Product design in the circular economy: substitution of critical and toxic raw materials
- Role of raw materials in the EU Green Deal and other initiatives - Decarbonation
- Resource efficiency in mineral and metallurgical processes
- New regulatory framework for EIAs and Strategic EIAs

10. Occupational Health and Safety (OHS)

- OHS hazards, identification, evaluation and control – emerging hazards

- OHS management systems, indicators and measurement techniques
- OHS culture building (leadership, motivation, education, training, inspection, auditing)
- Regulations of mine safety and health, safety compliance enhancement and productivity improvement
- Mine safety and health innovative technologies (robots and automation, proximity detection systems, wearable devices, RFID, drones, worksite simulators)

11. Greece-specific issues

- Present state and future of the Greek mining and metallurgical sector
- Role of SMEs and spin-offs in the mining and metallurgical sector
- Geothermal Energy in Greece
- Greek marble sector
- Mining history and minerals/stones used in antiquity
- The mining and metallurgical industry of Greece: Legislation, statistics and societal issues
- Greek type locality minerals

IMPORTANT DATES

Submission open	05 Jan 2021
2 nd Announcement	01 Feb 2021
Abstract submission deadline	15 April 2021
Abstract acceptance	30 Apr 2021
Early bird registration	31 May 2021
Registration deadline for authors	30 Jun 2021
Full paper submission deadline	30 Jun 2021
3 rd Announcement/preliminary program	05 Jul 2021
Conference opening	05 Sep 2021

ABSTRACT SUBMISSION

Abstract submission (**Deadline: 15/4/2021**) can be carried out through the *RawMat2021* website using EasyChair conference management system. For abstract submission and guidelines please follow this link:

[RawMat2021 - SUBMISSION LINK](#)

PAPER PUBLICATION

RawMat2021 full papers will be published in an open access special proceedings volume.

Selected papers will be published in special issues of collaborating journals following their normal peer review process. The list of the journals will be constantly updated at the *RawMat2021* site.

REGISTRATION

Instructions for registration are available at the *RawMat2021* website:

[RawMat2021 - REGISTRATION INFO](#)

For any clarification, please contact the Conference Secretariat at:

info@rawmat2021.gr

REGISTRATION FEES

	Before 31 May 2021	After 31 May 2021	On site
Standard registration (with paper)	240€	300€	360€
Additional paper (>2)	80€ per paper		
Attendance (without paper)	180€	180€	240€
Students (with paper)	180€	220€	260€
Students (without paper)	120€	120€	150€
Students (without paper) (daily pass)			60€

In the case that the conference goes virtual, a refund rate will be applied. Details will be announced in due time.

Please note the **Early-bird Registration fee deadline** and take advantage of it by registering before **31st May 2021**

Planned technical sessions and all other events such as the welcome Cocktail, the Gala dinner as well as the field trips will be held in full compliance with the prevailing health and safety measures.

Stay tuned with RawMat2021 site for updates regarding this issue.

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