



People's Democratic Republic of Algeria
Ministry of Higher Education and Scientific Research
University of Ghardaia



Faculty of Economic, Commercial, and Management Sciences
Faculty of Sciences and Technology

**Research Laboratory of Digital Infrastructure, Artificial Intelligence, and
Their Applications in the Digital Transformation of Economic Sectors**
In collaboration with the
Laboratory of Applied Studies in Financial and Accounting Sciences

NATIONAL CONFERENCE CALL FOR PAPERS

The Economic and Technical Model of Rare Minerals

**Investment Prospects and Technological Innovation in
Light of Global Energy Challenges**

Conference Leadership & Committees

Honorary Conference Chair

Prof. Dr. ilyas Ben Saci

General Supervisor

Dr. Sadouni Radouane

Conference Chair

Dr. Sayah Abdallah

General Coordinator

Prof. Dr. Rouani Bouhafs

Scientific Committee Chair

Dr. Farid Touati

Organizing Committee Chair

Dr. Ouled El Hadar Fateh Belkacem

I. Conference Problem Statement

In light of the structural shifts transforming the global economy, rare minerals and earth elements have emerged as the vital lifeblood of the Fourth Industrial Revolution (Industry 4.0) and the foundational pillars for clean energy transitions. This conference aims to formulate a strategic national roadmap that transcends traditional raw extraction practices. Instead, it seeks to build an integrated ecosystem that drives digital innovation, safeguards economic sovereignty, and accelerates sustainable development.

Our objective extends beyond simply identifying underground resource wealth; it focuses on how to effectively convert these assets into high added value, guaranteeing a competitive position on the shifting global economic map while decoupling from traditional fossil fuel dependencies.

Core Problem Statement:

How can a strategic balance be achieved between the intensive industrial exploitation of rare mineral compounds to ensure technological leadership, and the mandates of environmental sustainability and national economic sovereignty amidst escalating international competition over critical resources?

II. Conference Objectives

- **Epistemological and Economic Grounding:** Defining the conceptual frameworks of rare and strategic minerals while highlighting their geopolitical and economic value amid global supply scarcities.
- **Supporting the National Energy Transition Strategy:** Demonstrating how these mineral components contribute to manufacturing photovoltaic panels, wind turbines, and lithium batteries to meet sustainable development goals.
- **Stimulating Technological Innovation:** Exploring the role of rare earth elements in advancing artificial intelligence, robotics, precision defense manufacturing, and aerospace technologies.
- **Attracting Investment and Enhancing Value Chains:** Discussing mechanisms to attract domestic and foreign direct investment (FDI) into exploration and domestic processing instead of exporting raw materials.

- **Balancing Mining and Environmental Compliance:** Investigating sustainable extraction practices via 'green mining' technologies to mitigate environmental impacts.
- **Building Multilateral Communication Bridges:** Creating a collaborative platform for academic researchers, policymakers, and economic actors to maximize the mining sector's contribution to Gross Domestic Product (GDP) growth.

III. Conference Tracks

Track 1: Geological Realities and Available Potential

- Global and national mapping of rare earth elements and strategic minerals (lithium, cobalt, neodymium, etc.).
- Advanced techniques in mineral exploration and mining prospecting, including remote sensing and geophysics.
- Evaluation of national reserves and commercial viability.

Track 2: Rare Minerals as a Catalyst for the Tech Revolution (Industry 4.0)

- The role of critical minerals in the semiconductor industry and smart electronic device manufacturing.
- Applications of rare elements in defense systems, aviation, and space technologies.
- The impact of mineral supply reliability on technology localization and the growth of tech startups.

Track 3: Mineral Economics and the Clean Energy Transition

- The Electric Vehicle (EV) industry: Strategic challenges and opportunities amid soaring demand for cobalt and lithium.
- The role of critical minerals in maximizing renewable energy efficiencies (green hydrogen, solar power, and wind energy).
- The circular economy of rare minerals: Recycling as a sustainable alternative to traditional mining.

Track 4: Geopolitical Dimensions, Strategic Outlook, and Supply Chains

- International resource conflicts: The strategic placement of developing nations on the global mineral influence map.

- Global supply chain analysis and risks associated with production concentration in specific geographical regions.
- Strategies for supply security and safeguarding national economic sovereignty.

Track 5: Legal, Regulatory Frameworks, and Environmental Sustainability

- Mining investment laws and mechanisms for incentivizing international partnerships.
- Mining governance, accountability, and transparency in natural resource management.
- Environmental and social standards in mining zones, emphasizing Corporate Social Responsibility (CSR) among mining enterprises.

IV. Target Audience

This premium scientific event is curated tailored specifically for:

- Research professors, university faculty, doctoral fellows, and specialized researchers in renewable energy, mineral economics, and green digital technologies.

V. Submission Guidelines & Participation Conditions

- Submissions must demonstrate absolute scientific originality and adhere strictly to rigorous academic and methodological standards. Papers must not have been previously presented at other conferences, published in scientific journals, or extracted from existing theses/dissertations.
- The submitted research must explicitly align with one of the designated conference tracks.
- Formatting Requirements: Papers written in Arabic must use Amiri font (size 14). Submissions in foreign languages (English/French) must use Times New Roman font (size 14).
- Every paper must include two comprehensive abstracts: one in Arabic and one in English.
- The total length of the manuscript must be between a minimum of 10 pages and a maximum of 15 pages (inclusive of references and appendices).

VI. Important Dates

Milestone / Event	Deadlines & Target Dates
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Full Paper Submission Deadline	October 05, 2026
Notification of Acceptance / Review Feedback	October 10, 2026
Conference Convening Date (Hybrid Session)	October 15, 2026

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