

Preface

14 -18 October 2019, Vernadsky State Geological Museum of RAS, Moscow (Russia) hosted the V International Conference "Information Technologies for Earth Sciences and Applications for Geology, Mining Industry and Economics. ITES&MP-2019"

Conference ITES&MP-2019 represents an extension of the ITES Conference (Modern Information Technologies in Earth Sciences: Magadan 2008; Vladivostok 2010, Petropavlovsk-Kamchatsky 2014, Yuzhno-Skhalinsk 2016) and Mineral Prospectivity Conference (Orleans, France 2017) targeting the issues related with data organization, management, and analysis in Earth Sciences. The new conference inherits ITES and Mineral Prospectivity Conference headlines and intends to keep and develop the ITES and Mineral Prospectivity Conference participants' community formed in the last ten years of successful work.

Exponential expansion of data, methods and processing systems in practically each field of Earth Sciences and also realization of the information technologies role in these fields motivate the organizers.

Conference topics:

- Open access to scientific data and knowledge in Earth Sciences.
- Data peculiarities in Earth Sciences: new concepts and methods, tools for their collection, integration and processing in different information systems, including systems with intensive use of data.
- Data mining and mathematical simulation of natural processes in Earth Sciences. Evolution of classical GIS-applications in Earth Sciences.
- Application to Critical Raw Materials (CRM); social aspects of mining (e.g., the Social License to Operate [SLO]); predictive mapping and applications to exploration, landuse and search for extensions of known deposits.
- Intelligent data analysis, elicitation of facts and knowledge from scientific publications. Thesauruses, ontologies and conceptual modeling. Semantic WEB, linked data. Services. Content semantic structuring. Applications for geosciences, e.g., Ontology-based Dynamic Decision Graphs for Expert systems and decision-aid tools.
- Application of methods and technologies of the remote sensing in Earth Sciences: from satellites to unmanned aerial vehicles.
- Information technologies for demonstration and popularization of scientific achievements in Earth Sciences.
- Applications: environmental risks including mining wastes, natural hazards, water resource management, etc.

Participated in the Conference: more than 100 participants from 8 countries: Russia, France, Armenia, Kazakhstan, the Republic of South Africa, Egypt, Tanzania, Sri Lanka, including from 15 cities of the Russian Federation: Moscow, St. Petersburg, Novosibirsk, Krasnoyarsk, Irkutsk, Vladivostok, Magadan, Khanty-Mansiysk, Perm, Apatite, Barnaul, Kemerovo, Fryazino, Arkhangelsk, Tver. BRGM staff took an active part in the Conference.

During the three days of the Conference, 70 reports were made on various topics related to the themes of the Conference.

The meetings of the Conference were broadcast live on the Internet.

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