

Preface

The 5th International Scientific Conference on Civil Engineering-Infrastructure-Mining took place on January 17 and 18, 2019 at the Cracow University of Technology. The conference concerned scientific and technical issues related to the foundation and exploitation of buildings, civil engineering structures as well as infrastructure and environment in mining and post-mining areas.

This year's theme was dedicated to "Methods of preventing harmful impact of mining on people, the environment and infrastructure". The honorary patrons of the conference were: the president of the Polish Higher Mining Office, the Rector of the Cracow University of Technology and the Dean of the Faculty of Civil Engineering. During the meeting, presented were the results of research, which are currently conducted in the areas of extraction of various natural deposits. The speeches were devoted to the impact of the mining industry on the environment, mainly deformations of the terrain and the impact of mining shocks on building structures. Modern methods of monitoring mining and post-mining areas as well as strengthening the soil base in these areas have been widely discussed. Problems of methods of inventory or liquidation of mining damages were taken, and the reduction of the costs of their removal were debated. In the aspect of environmental protection, it was talked about the possibility of using post-mining waste in construction industry.

The conference was inaugurated by the rector of the Polish Academy of Sciences, prof. Jan Kazior. Welcoming the assembled representatives of industry, business and science, he underlined the importance and necessity of cooperation of these environments. Participants and guests of the conference welcomed on behalf of the organizers - the Vice-Rector for Science of the Cracow University of Technology, prof. Tadeusz Tatara, at the same time Chairman of the Scientific Committee of the conference.

Dr Adam Mirek - the President of the State Mining Authority, addressed the conference participants, emphasizing the importance of the problems discussed at the conference and the need to organize this kind of exchange of views and the latest solutions supporting mining and areas affected by exploitation. The presentation session was started by the Director of the Environmental Protection and Deposit Management Department, Piotr Kujawski, lecture entitled "The role of mining supervision authorities in the process of protection of buildings in mining and post-mining areas". During the conference, a total of 32 papers were delivered, including several during the poster session.

The conference was attended by scientists from home universities such as the AGH University of Science and Technology, Silesian University of Technology, Opole University of Technology, and the Pedagogical University of Krakow, as well as guests from different countries.. Among the co-authors of the papers were scientists from Canada, Cyprus, Norway, Nigeria, Spain, Slovenia and Ukraine. There were also industrial and scientific experts from: the Central Mining Institute in Katowice, the Polish Geological Institute - National Research Institute, Institute of Geophysics, Polish Academy of Sciences, Institute for Mineral Resources and Energy, Polish Academy of Sciences and the State Mining Authority; also from

companies - Geopartner Sp. z o.o., INORA Sp. z o.o., Laser 3D, SIKA Poland Sp. z o.o. The mining industry was represented by representatives of KGHM Polska Miedź and Jastrzębska Spółka Węglowa.

An additional event accompanying the conference was the award gala of the winners of the Silesian Inter-School Competition for high school students on Civil Engineering-Infrastructure-Mining.

The aftermath of this event is this volume devoted to issues discussed during the conference.

Elżbieta Pilecka

Tadeusz Tatara

Janusz P. Kogut

Editors of the Conference Proceedings