

Preface

The **International Conference on Innovations and Prospects of Development of Mining Machinery and Electrical Engineering (IPDME 2019)** was held in St Petersburg, Russia, on April 24–27, 2019.

This book contains the selected papers presented at the international scientific conference on Innovations and Prospects of Development of Mining Machinery and Electrical Engineering. Within the framework of the conference in Saint-Petersburg Mining University were held special sessions on novel materials for mining tools and equipment, materials study and engineering, mineralogy and ore treatment. More than six dozen researchers participated in discussion and those who presented the most current and intriguing research were invited to publish their manuscripts in the volume. All included reviewed papers cover various topics within the field of materials science and present valuable research results.

The conference was initially held as the session “Mining Machinery” of International Conference on Innovations in Transport and Mechanical Engineering. In 2016 the committee of International Conference on Innovations in Transport and Mechanical Engineering made a decision to hold the session on the Mining machinery as a separate event. The first conference on Innovations and Prospects of Development of Mining Machinery and Electrical Engineering was held on 2017.

Today IPDME is the significant annual event for participants from Russia and surrounding states that covers such topics of materials science as

- Methods of analysis and testing materials;
- Constructional steels for tools and machinery;
- Novel composite materials in mining engineering;
- Methods of stiffening alloys and materials;
- Technologies of ore minerals processing;
- Mining mineralogy and oryctology;
- Technologies of ore preservation and storing.

This year, the four-day conference brought together the specialists from different countries and organizations and provided an excellent opportunity to exchange knowledge, make oral contributions and poster presentations, and initiate discussions on the topics that are of interest to the conference participants.

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