

Preface

We are pleased to welcome you to the proceedings of **PRMR 2021, 34th Scientific Conference: Problems of Working Machines Development**, which were organized by **UTP University of Science and Technology in Bydgoszcz**, Poland, on February 16, 2021. The conference was held on-line.

The **PRMR Conference** is an annual event that presents the latest research in the field of working machinery development, as well as a meeting place and dissemination of knowledge. The meetings aim to raise awareness and discuss the importance of this topic and its benefits for the entire community. This year, we could host up to 50 participants during on-line sessions.

So far, PRMR has been a national conference. However, cooperation with other countries made it possible to increase the international influence. Our conference was attended by scientists from countries such as Canada, Croatia, Germany, Portugal, Slovakia, Ukraine, and United States of America.

We received research papers from outstanding participating scientists and researchers from different countries. The event thus emerged as a platform for scientists to discuss and exchange experiences. The material collected during the conference aroused great interest, and we decided to publish selected works.

The conference meeting was divided into 5 sections - Construction, Technology, Materials Science, Exploitation, Experimental Research. This work contains selected manuscripts selected through a selective peer-review process.

We would like to express our sincere thanks to all those who have contributed to the success of PRMR 2021. The conference would not have been possible without the support from people who work in universities such as Slovak University of Agriculture in Nitra University, Khmel'nitsky National University, Univeristy of Waterloo, University of Maryland which selflessly and enthusiastically supported and helped to overcome the many obstacles that arose during the preparation and organization of this event.

We want to thank all authors of submitted papers for their participation. All contributed with a great deal of effort and creativity to produce this work. We are happy that they chose **PRMR2021**, as the place to present it. Credit also goes to all collaborators, in particular, the Scientific Committee members and reviewers, who donated substantial time from their busy schedules to carefully read and conscientiously evaluate the submissions.

In addition, in the name of the Organizing Committee, I would like to take this opportunity to extend our sincere gratitude to all supporting Organizations, for their support and encouragement and for making the event a success.

Special thanks to all our speakers, authors, and delegates for making **PRMR2021**, a fruitful platform for sharing, learning, networking, and inspiration. We sincerely hope you find this publication enriching and thought provoking.

Sylwester Borowski
Bogdan Ligaj
Przemysław Strzelecki
Lubomír Hujo