PREFACE

We are pleased to present the proceedings of The XXIII Conference on Technologies and Properties of Modern Utility Materials (TPMUM 2015) held on May 15, 2015 and hosted by The Faculty of Materials Engineering and Metallurgy of Silesian University of Technology in Katowice, Poland (www.wimim.polsl.pl).

The Faculty of Materials Engineering and Metallurgy is one of sixteen Faculties of Silesian University of Technology. The Faculty structure consist of four departments: Institute of Metals Technology, Institute of Materials Science, Department of Production Engineering and Department of Industrial Informatics.

The TPMUM Conference is organised annually in conjunction with the celebration of National Metallurgist's Day in Poland. It is the occasion for faculty members, students and guests to share and discuss the results of their research and plans for the future development of the Faculty. The scope includes topics related to materials engineering, in particular, advanced analytical methods in materials science, development and application of metal alloys, ceramics, composites, their processing techniques and related environmental issues.

In addition to plenary and seminar sessions a poster session open to participants and faculty students is also organised. Selected, peer reviewed papers are published.

This year's proceedings include 62 papers peer reviewed by international specialists from Turkey, Portugal, the United States of America, South Africa, Poland, Czech Republic, Slovakia, Germany, and Romania. Papers are categorised in four chapters:
I. Analysis, Testing and Properties of Materials, II. Surface Engineering and Corrosion Resistance, III. Processing Technologies, and IV. Decisions in Area of Industrial Engineering. Chapter I concerns with microstructure studies and correlation between microstructure and properties of materials. Chapter II contains papers related to the development of protective coatings and other methods that increase corrosion resistance of metal alloys. Chapter III. related to development of materials processing techniques and evaluation of materials properties during processing Chapter IV includes papers that describe waste and industrial management, environmental impact of materials processing industry and optimization of processing technologies.

Conference should be considered a success. As the Editors of this proceedings we would like to thank all participants for their attendance and the effort with preparing the papers. We appreciate all reviewers' effort and expertise in contribution to reviewing.

Editors

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