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## Preface

12th International Conference Quality Production Improvement - QPI 2018 was successfully held in Zaborze near Myszków, Poland on 18th - 20th June 2018. The objective of the conference is to provide a platform for researchers, engineers, academicians as well as industrial professionals from all over the world to present their research results and development activities in production engineering, quality of materials, technology and management. The success and prosperity of the conference is reflected high level of the papers received.

The proceedings are a compilation of the accepted papers and represent an interesting outcome of the conference. This book covers 4 chapters: Production engineering; Material engineering; Quality management; Management.

We would like to thank speakers, patronages and all the conference for making this year's QPI 2018 conference another unforgettable event. We sincerely appreciate all the authors who have contributed to this volume and also to the reviewers for their strong support to improve all papers.

Especially we would like to thank The Rector of the Czestochowa University of Technology Prof. Norbert Sczygiol and Mayor of the municipality of Olsztyn Tomasz Kucharski.

We sincerely hope that QPI 2018 will be a forum for excellent discussions that will put forward new ideas and promote collaborative researches. We are looking forward to meeting you 2019!

Organizing Team