



Innovative Technologies and Economics in Engineering

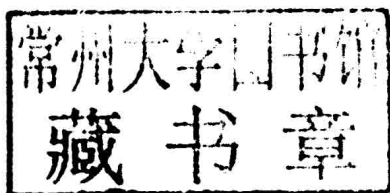
Edited by
D.A. Chinakhov



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Edited by

D.A. Chinakhov



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PREFACE

Innovation Technology and Economics in Engineering Conference Proceedings follow the same-name 5th International Scientific Practical Conference held at Yurga Institute of Technology (branch) of National Research Tomsk Polytechnic University from 22th to 23th May, 2014. The Proceedings contain the selected scientific reports submitted to the Conference.

Having started in 1996 the scientific conference at Yurga Institute of Technology (branch) of National Research Tomsk Polytechnic University acquired its international status in 2010. This year scholars from Russia, Kazakhstan, Belarus, Ukraine, Azerbaijan, China, Germany, and Poland have submitted their papers to the Conference.

The scientific reports published in these Proceedings have been revised and approved by the editorial team of the Conference. All of the reports exhibit clear, concise, and precise expositions that appeal to a broad international readership interested in mechanical engineering, welding, metallurgy, material science, as well as in computer-aided manufacturing and economy. The reports present original ideas or results of general significance supported by clear reasoning and compelling evidence, and employ methods, theories and practices relevant to the research. The authors state clearly the questions and the significance of their research to theory and practice, describe how the research contributes to new knowledge; and provide tables and figures that meaningfully add to the narrative.

Organizing Committee of the Conference thank all the participants of the Conference for their fruitful work and personal contribution to the development of these Conference Proceedings.

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CHAPTER 1:

Material Science, Machining Technologies and Equipments in Mechanical Engineering

