

Proceedings of the Scientific Conference  
“Applications of Physics  
in Mechanical and Material Engineering”  
(APMME 2020)

Częstochowa, Poland, January 17, 2020

*Editors of the Proceedings:*

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WARSAW

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INSTITUTE OF PHYSICS

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# Preface

The Scientific Conference “Applications of Physics in Mechanical and Material Engineering” — APMME was held on 17th of January 2020, in Częstochowa, Poland. The organizer of APMME was the Department of Mechanics and Machine Design Fundamentals at the Faculty of Mechanical Engineering and Computer Science of the Częstochowa University of Technology.

The honorary patron of the Conference was the Rector of the Częstochowa University of Technology, prof. dr hab. inż. Norbert Szczygiol. The Conference took place thanks to the great kindness for this undertaking of the Faculty Dean, prof. dr hab. inż. Małgorzata Klimek for this undertaking.

On behalf of the Scientific and Organizing Committee of the APMME 2020 Conference, we would like to thank the Rector for the patronage over the conference and the Dean for important help in conducting the conference and the publication process of post-conference works. Warm words of thanks are also addressed to all conference participants who have kindly responded to the invitation of the Organizing Committee.

The APMME 2020 conference was conducted for the first time by the MMDF Department. The organizers express the hope that this conference will be permanently included in the calendar of important international scientific conferences where domestic and foreign participants will be able to present and discuss the latest achievements in the field of broadly understood applications of physics in mechanical and material engineering.

The APMME 2020 conference was attended by 50 participants from Poland and Slovakia, Romania, Bulgaria, Hungary, England, Greece, Turkey, Malaysia and Iran. Participants presented their work in plenary sessions and in a poster session. Post-conference papers submitted to the Scientific Committee were reviewed and sent for approval to the Publishing Team *Acta Physica Polonica A*.

The Guest Editors would like to thank the Editorial Staff for their effort and help in preparing this issue.

Wojciech Sochacki  
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*Editors*