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Preface

It is our pleasure to present to you the proceedings of the **4th International Conference on Power, Energy and Mechanical Engineering (ICPEME 2020)** and **9th International Conference on Manufacturing Engineering and Processes (ICMEP 2020)**, that took place in **Budapest, Hungary**, from the **14th to the 17th of February of 2020**.

This **Conference on Power, Energy and Mechanical Engineering (ICPEME 2020)** is an annual international event and is a particular opportunity to confront ideas from researchers from around the world related to two major topics. The first topic is **Power, Energy and Environment Engineering** and the second topic is **Mechanical Engineering**. Together they aim to foster awareness and discussion on the importance of this subject and its benefits for the community at large at a moment of great innovation in both fields.

All the papers selected for presentation at this conference and for publication in the proceedings were peer reviewed, by a “double-blind” paper evaluation method.

It is my pleasure to announce the participation of expert speakers from sixteen countries spreading over three continents (Algeria, Arabia, Austria, Canada, Hungary, China, Kuwait, Italy, Japan, Portugal, USA, Spain, Thailand, Turkey, Russia, Korea, etc.) in this three-day event. Thus, this event revealed itself as being a platform for researchers in a vast variety of fields to discuss, share, and exchange experiences. The comprehensive content of the congress has attracted immense attention and the wealth of information spread out over all the papers is, in our point of view, extremely useful for researchers working in the related fields as well as policy makers, experienced professionals and business executives.

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, and I, in my quality of organizing chair, am especially happy that they chose **ICPEME 2020** and **ICMEP 2020**, 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.

We would like to express our sincere thanks to all the support we received from: the Lisbon School of Architecture of the University of Lisbon the Washington University in St. Louis, Macquarie University Murom Institute of Vladimir State University, Science and Engineering Institute which have contributed to the success of **ICPEME 2020** and **ICMEP 2020**.

To the organizing Committee of the **4th International Conference on Power, Energy and Mechanical Engineering (ICPEME 2020)** and **9th International Conference on Manufacturing Engineering and Processes (ICMEP 2020)** a special thanks. Without them it would not have been possible and also I take this opportunity to extend our sincere gratitude to all supporting Organizations at the backstage, for their support and encouragement and for making the event a success.

Once again thanks to all our keynote speakers, authors, and delegates for making **ICPEME 2020** and **ICMEP 2020**, a fruitful platform for sharing, learning, networking, and inspiration.

We sincerely hope you find this publication enriching and very useful in future research endeavours.

Mário S. Ming KONG
ICPEME & ICMEP 2020 Conference Organizing General Chair