

## Preface

The Proceedings of the 12<sup>th</sup> South African Conference on Computational and Applied Mechanics (SACAM2020) present findings from a large range of fundamental and applied research topics as well as industrial applications in the broad field of mechanics. SACAM is a biennially held conference series under the auspices of the South African Association for Theoretical and Applied Mechanics (SAAM) which aims at promoting activities concerning theoretical, experimental and computational mechanics in South Africa in order to enhance the development of expertise in mechanics in this country. As such, it provides a forum for postgraduate students, emerging and established researchers as well as professional engineers to discuss and answer questions on the subject of mechanics relating to solids and fluids.

SACAM2020 has received excellent support by researchers and practitioners all across South Africa, with authors being drawn from numerous research and industrial organisations. These Proceedings contain papers presented at the conference, classified into a total of 18 sub-themes which can be grouped under five main themes: (i.) Structural Mechanics and Dynamics, (ii.) Fluid Dynamics, (iii.) Thermodynamics, (iv.) Manufacturing and Process Engineering, and (v.) Control Theory and Optimisation. Only original contributions were considered for inclusion in the conference proceedings and all papers submitted were subjected to a full process of double-blind peer review. The review of manuscripts was undertaken by members of the Scientific Advisory Board and other identified leading experts, acting independently on one or more assigned manuscripts. This invaluable assistance, which has greatly enhanced the quality of the Proceedings, is gratefully acknowledged. The full conference papers are published by MATEC Web of Conferences, a provider of open-access proceedings in Materials Science, Engineering and Chemistry. This was done in order to give the papers better accessibility in the international research and industry communities.

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Finally, the editor wishes to thank the authors for their efforts towards producing and delivering papers of high standard. This ensures that the Proceedings will be a valued reference for many working in this important field, and that they will form a suitable base for discussion and provide suggestions for future development and research.

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*Editor*

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