



THE INTERNATIONAL CONFERENCE ON APPLIED RESEARCH AND ENGINEERING

**SELECTED PEER-REVIEWED FULL TEXT PAPERS FROM THE
3rd INTERNATIONAL CONFERENCE ON
APPLIED RESEARCH AND ENGINEERING
(ICARAE2023)**

**EDITED BY
PROF. VELAPHI MSOMI
DR. SIPOKAZI MABUWA**



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Preface

The International Conference on Applied Research and Engineering (ICARAE2023) was successfully conducted in hybrid from the 17th to the 19th of November 2023. This conference was organized under the umbrella of Cape Peninsula University of Technology (CPUT) partnered with the Institute of Aeronautical Engineering Dundigal, India.

The main objective of the ICARAE2023 was to bring together engineers, industrial experts, and academics to share and exchange their research results and experiences related to their fields. This conference was also used as a platform for networking and creation of collaboration. All the papers included in this volume were subjected to an independent peer-review process and all the selected papers were based on their quality and relevance to the conference.

We would like to thank all the Committees for this conference. We would also like to thank the keynote speakers for sharing their experiences with the rest of the participants. We hope that the contents of this volume will be useful in stimulating new ideas and technologies

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