

Preface

It is with great enthusiasm that we present the proceedings of the 2025 SAIMEchE Central Branch Conference on Mechanical Engineering and Related Disciplines. (SCMERD). The conference took place at the University of the Witwatersrand on 28 October 2025. It brought together academic researchers and industry professionals on a platform focused on mechanical, industrial, aeronautical, and mechatronic engineering.

The event featured presentations from researchers and keynote speakers from academia and industry. Prof Shankar Sehgal of the Mechanical Engineering Department at UIET, Panjab University, Chandigarh, India, delivered a keynote entitled “Advanced mechanical design through structural dynamic finite element model updating. Prof Kamran Hassani of the School of Mechanical, Industrial and Aeronautical Engineering delivered a keynote entitled, “The application of computational modelling in cardiovascular engineering”.

All submitted papers underwent peer review by members of the scientific committee and other international reviewers. The conference received 70 submissions, of which 46 were accepted for presentation, representing an acceptance rate of 66%. This volume includes 16 of the presented papers that have been accepted for publication.

The organising committee thanks the authors who contributed their research to the conference. It also thanks the reviewers for the meticulous reviews and constructive feedback to the authors. The organising committee thanks the esteemed researchers who served on the organising and scientific committees, as well as the South African Institution for Mechanical Engineering, for sponsoring the conference.

Kind regards,

Dr Tiyamike Ngonda

Conference Chair

University of the Witwatersrand

21 December 2015

List of committee members

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2025 SAIMechE Central Branch Conference on Mechanical Engineering and Related Disciplines

2025 SAIMechE Central Branch Conference on Mechanical Engineering and Related Disciplines takes place at University of the Witwatersrand on 28 October 2025. The conference brings together postgraduate students, academics, and industry professionals on a platform that welcomes research in the fields of mechanical, industrial, and aeronautical engineering.

CONFERENCE THEMES

Mechanical Design, Computational Simulations and Models, Solid and Fluid Mechanics
Mechatronics, Materials Design and Testing, Advanced Manufacturing Processes, Engine and Fuel Technology, Energy and Renewable Energy, Operations Research, Lean Manufacturing, Aerodynamics, Flight Dynamics.

PUBLISHING OPTIONS

Abstract, Extended Abstract or Technical Paper
Developmental review - Can develop into full paper after conference.

Full Paper
Blind peer review - publication in conference publishing partners

CONFERENCE OPTIONS

Onsite- SWEB, East Campus, Wits University

Online - via an online platform

KEY DATES

8 Submissions open
; 1st June, 2025

8 All submissions close
; 8th September, 2025

8 Notice of acceptance
; Rolling notice

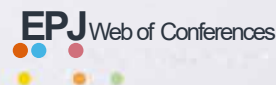
8 Deadline for camera-ready manuscripts
- 7 3rd October, 2025



28 October,
2025

East Campus
University of the
Witwatersrand

PUBLISHING PARTNERS



DHET accredited - indexed in
DOAJ, Scopus and WoS (subject to
acceptance)

SCAN QR CODE



FOR MORE INFORMATION

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