

PRE-CONFERENCE SEMINAR ON DESIGN AND ADDITIVE MANUFACTURING OF TITANIUM AND PLATINUM GROUP METAL PARTS



Monday 28 October 2024
Boardwalk Hotel and Conference Venue, Gqeberha
Hosted by the Central University of Technology, Free State
Supported by the Department of Science and Innovation



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REPUBLIC OF SOUTH AFRICA

PROGRAM

Program Director: Dr Kobus van der Walt

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8:30 – 9:30	Registration	
9:30 – 9:40	Welcoming Address	Dr Kobus van der Walt, CUT
9:40 – 10:00	Opening Address	Mr Beeuwen Gerrits, Chief Director: Technology Localisation, Beneficiation and Advanced Manufacturing, DSI
10:00 – 10:20	Characterisation of a 90° inflow radial turbine additively manufactured from Ti-6Al-4V	Max Cogho and Gys Jacobs
10:20 – 10:40	Design and additive manufacturing of Ti-6Al-4V test-piece for use in aeronautical turboshaft engine heat exchanger	Paul Bester, Chris Aggenbacht and Imdaadulah Adam
10:40 – 11:00	Development and characterisation of Ti-6Al-4V additively manufactured compact counter-flow heat exchangers	Schübel Venter and Gys Jacobs
11:00 – 11:30 Tea		
11:30 – 12:00	Keynote address: Adding value to South Africa's platinum group metals through additive manufacturing	Prof Willie du Preez
12:00 – 12:20	Additive manufacturing of titanium porous transport layers for enhanced performance in proton exchange membrane water electrolysis	Gerrit Ter Haar and Craig McGregor
12:20 – 12:40	Current capabilities in the development of additive manufacturing at Mintek	Donald Mkhonto, Maje Phasha, K Dyal Ukabhai, Ramogholo Diale, Lebedike Mampuru and Joseph Moema
12:40 – 13:00	The development of platinum alloys for jewellery applications by considering both the conventional and the advanced manufacturing techniques-review paper	Kedibone Lekganyane, Malika Khodja-Moller, Donald Mkhonto, Roelof Mostert, Maje Phasha
13:00	Closure	Dr Kobus van der Walt
13:00 LUNCH		