



AERONAUTICAL SOCIETY OF SOUTH AFRICA

Aeronautical Society of South Africa NPC
 Registration number 2000/026325/08
 Email: info@aessa.org.za
 Web: www.aessa.org.za



A DIVISION OF THE ROYAL AERONAUTICAL SOCIETY

Wednesday, 24 July 2024				
Venue: Protea Hotel by Marriott Stellenbosch & Conference Centre				
08:00	09:00	Welcome and Registration		
Session Chair: David Toma				
09:00	09:15	Opening Address: AeSSA President		David Toma
09:15	10:00	Keynote	Evolving the SA Space Industry from Manufacturing Hardware to Providing Analytics Ready Data	Bryan Dean (DragonFly Aerospace)
10:00	10:30	Technical Session	AISI: Software Defined Radio S-band TMTC Transceiver for Small Satellites	Ewald van der Westhuizen
10:30	11:00	Technical Session	AISI: Wide-band S-band Antenna for CubeSat TMTC Applications	Chris Smit
11:00	11:30	Tea Break		
Session Chair: Glen Snedden				
11:30	12:00	Technical Session	AISI: Next Generation Antennas for Unmanned Aerial Vehicles and Low Earth Orbit Satellites	Vernon Davids
12:00	12:30	Technical Session	AISI: Productization: Wideband Transceiver Module	Henno Kriel
12:30	13:00	Technical Session	AISI: Transforming Shock Test Capabilities: From Proof of Concept to Establishing a State-of-the-Art Testing Facility for South Africa's CubeSat Industry	Hano Steyn
13:00	14:00	Lunch		
Session Chair: Johan van der Spuy				
14:00	14:30	Technical Session	Streamlining External Store Separation Analysis with Computational Fluid Dynamics	Ndumiso Mthembu
14:30	15:00	Technical Session	Streamlining Store Separation Analysis with Missile Datcom and Aerodynamic Store Segmentation	Hlamulo Ndlovu
15:00	15:30	Technical Session	The Effect of a Crossover Diffuser Configuration on the Performance of a Mixed Flow Compressor Stage for a Micro Gas Turbine Engine	Johan van der Spuy
15:30	16:00	Technical Session	The Effect of Combustor Hole-set Arrangement when Comparing Two Different Hole-set Design Methods	Bronwyn C Meyers
16:00	16:30	Technical Session	A New Aerodynamic Model for Robust Axial Fan Simulation	Adam Venter
17:00	End of Day 1			

Thursday, 25 July 2024

Venue: Protea Hotel by Marriott Stellenbosch & Conference Centre

08:00	09:00	Coffee and Tea		
Session Chair: David Toma				
09:00	10:00	Keynote	Why Earth Observation (EO) from Space Is Growing So Fast, and What We Are Doing in this Sector	Johann du Toit (Simera)
10:00	10:30	Technical Session	A Geometric and Aerodynamic Analysis of the Grey-Headed Albatross	Janine Schoombie
10:30	11:00	Technical Session	Development of an Autonomous Thermal Soaring Controller for Improved UAV Range and Endurance Capabilities	Crispin Scott McKenzie
11:00	11:30	Tea Break		
Session Chair: Glen Snedden				
11:30	12:00	Technical Session	CFD Analysis of the CSIR Medium Speed Wind Tunnel 3 Stage Compressor	Glen Snedden
12:00	12:30	Technical Session	Load Balancing in Liquid Rocket Engine Electro-Pumps	Ruben Tukker
12:30	13:00	Technical Session	Rocket Flight Performance Modelling and Prediction Capabilities	Ewan Roland Horning Slabber
13:00	14:00	Lunch		
Session Chair: Johan van der Spuy				
14:00	14:30	Technical Session	Micro Gas Turbine Development at Stellenbosch University	Johan van der Spuy
14:30	15:00	Technical Session	Improving the High Temperature Behaviour of Additively Manufactured Superalloys for Aerospace Applications	Dr Melody Neaves
15:00	15:30	Technical Session	Investigation of the Airframe Propulsion Interaction for the Improved AREND UAV Airframe	Dameon Douglas Westley
15:30	16:00	Technical Session	Comparative Investigation of Stability by Tailoring the Spanwise Lift Distribution and Posture of a Wing with Polyhedral and Poly-sweep	Michael Ross de Kock
16:00	16:30	Technical Session	Active Wing Tip Devices for Lateral Control and Stability of Tailless Aircraft	Shrikesh Maharaj
17:00	End of Day 2			

Friday, 26 July 2024

Venue: Protea Hotel by Marriott Stellenbosch & Conference Centre

08:00	09:00	Coffee and Tea		
Session Chair: Michael Atkins				
09:00	10:00	Keynote	Collaborate Combat Aircraft (CCA) / Loyal Wingman	Lance Wellington (Incomar)
10:00	10:30	Technical Session	Preliminary Design of a South African RP/1-LOX-powered Liquid Tap-Off Cycle Rocket Propulsion System	Thato Lawrence Matjila
10:30	11:00	Technical Session	Navigating The Barrier To Entry In The Flight Test Industry	David Bahaa Samuel Toma
11:00	11:30	Technical Session	A Review of Swarming Behaviour and its Impact on Battery Life in Autonomous Aerial Agents	Mamokete Makhubo
11:30	12:00	Technical Session	Weapons Bay Cavity test in the Medium Speed Wind Tunnel (MSWT).	Jim Mashilangwako
12:00	12:30	Closing and Prize Giving		
End of Day 3				