

# AGENDA

DIAMOND AUDITORIUM   MAIN SESSION									
08:30 - 08:45	Engineering The Future   <b>Cobus Oosthuizen - CEO, ESTEQ</b>								
08:45 - 09:45	South Africa in 2030: The Latest Scenarios   <b>Dr. Frans Cronje - Director, Centre for Risk Analysis</b>								
09:45 - 10:30	The Digital Transformation of the producing economy – Driving the Digital Enterprise   <b>Ralf Leinen - Vice President of Digital Factory &amp; Process Industries and Drives, Siemens</b>								
VENUE	DIAMOND	GARNET	CRYSTAL	ONYX	AMETHYST	RUBY	AMBER	EMERALD	
COFFEE BREAK	SIMULATION				APPLIED RELIABILITY & DURABILITY	TEST & MEASUREMENT	THE DIGITAL ENTERPRISE	PRODUCT ENGINEERING & LIFECYCLE MANAGEMENT	MANUFACTURING SOLUTIONS
11:00 - 11:30	FloEFD at RDM: A History Dr. Werner Rousseau   Rheinmetall Denel Munition			Design for Reliability in Mounted Cannons Adriaan Steenkamp   Flamengo	Innovative Trailer Design Rudolf Niemoller   Tubeform Trailers	State of the Defence Industry in South Africa Theo Kleynhans   Denel Corporate	Design & FEA with NX Wimpie Olivier   Private	Logistics Simulation Model to Analyze Constraints to Better Plan for 0-32 Ton Loads Sisa Dluclu   Rotek Industries	
11:30 - 12:00	FEA Crack Propagation for a Compression Eye Link Component Jean-Pierre du Preez   Babcock Ntuthuko Engineering			RAM Analysis on Dryer System Lean van der Walt   Resonant Industrial	Deformation Measurement of Explosive Loaded Plates Using Digital Image Correction Mzwandile (Mzwai) Mokalane   CSIR - DPSS	Flight Simulator for Mining Gary Lane   ESTEQ Mining	Rapid Structural Analysis through AI Ruan van der Merwe   ESTEQ	When is being an Engineer your Worst Enemy? A Controversial Approach to Material Planning for Aerosud Franz Schoeman   SYSPRO Danie Grobbelaar   iPlan	
12:00 - 12:30	Using Simulation in Auditing Mobile Bulk Material Handling Equipment Kobus Nell & Erik Pistorius   Nine Dot Solutions			Reliability Block Diagram of Power Plant Nigel Volk   USNC	Development of a Dynamic Impact Tester for Roof Bolts Greig Knox   New Concept Mining	MSC One in the future of Engineering Stefan Thynelius   MSC Software	FE Simulation of Vehicle Load Body to Assist in Evaluation of Design Modification Effects Hubert van der Merwe   eNtsa	Tecnomatix Plant Simulation applications in the Department of Industrial Engineering Prof. James Bekker   SUN	
LUNCH	SIMULATION		SIMULATION		TEST & MEASUREMENT	THE DIGITAL ENTERPRISE	PRODUCT ENGINEERING & LIFECYCLE MANAGEMENT	MANUFACTURING SOLUTIONS	
13:30 - 14:00		A Hybrid Approach to Turbomachine Blade Damage Identification Prof. Stephan Heyns   UP	How Simulating the Metal Laser can help build a Component with the First Attempt Danie Louw   CSIR	The Optimization of a High Speed Train Nose for Drag and Cross-wind Stability Andrea Beneke   Transnet Engineering	Characterisation of Deep Residual Stress Profiles in Turbine Steel Dr. Mark Newby   Eskom	Vision of MESA Africa Daniel Spies   MESA Africa	Simulating the Effect of Mechanical Displacements and Thermal Loads on the Performance of Optical Systems Johan Du Plooy   Simera Technology Group	Industry 4.0: Practical applications in manufacturing Ian Caister   Caister Consulting	
14:00 - 14:30		Semi-active Suspension System using Magneto-rheological Fluid Prof. Schalk Els   UP	Finite Element Analysis of an Arch/Gravity Dam in the DRC Janice Zhang   Knight Piesold	Flutter analysis of Missiles & UAV's using MSC.Nastran/ Flightload Chris Dreyer   Denel Dynamics	In-situ Force Measurement on a Carbon Fibre Bicycle Wheel Dylan Naidu   ESTEQ	Are All Reliability Programs Expensive to Introduce? Rob Coles   HBM Prencscia	Innovative Trailer Design Rudolf Niemoller   Tubeform Trailers	Implementation of Advance Scheduling Solution Hallou Mohaman   ALPLA South Africa	
14:30 - 15:00		An Inverse Finite Element Method for Material Characterisation of Small Hyper-elastic Samples Marga Viljoen   SUN	Parametric Structural Nozzle Evaluation According to ASME VIII Div2 Jacques Bester   Structa	FloEFD Free Surface Simulation of Slurry Distribution Tank Andrew Hall   eDart Slurry Valves	Complex Vehicle Blast Testing Zeldra Schutte   CSIR - DPSS	The role of M.O.M within the Digital Enterprise Dr. Alberto Damasio   Siemens PLM Software	A Perspective on the South-African Tooling Industry and how AutoForm can help Marc Lambriks   Autoform	OEE Implementation at Engen LOBP Gerhard Hattingh   Siemens AG Industry Automation	
COFFEE BREAK	SIMULATION				APPLIED RELIABILITY & DURABILITY	TEST & MEASUREMENT	THE DIGITAL ENTERPRISE	PRODUCT ENGINEERING & LIFECYCLE MANAGEMENT	MANUFACTURING SOLUTIONS
15:30 - 16:00	Numerical Modelling of the Temperature Distribution in the Cross-section of an Earthmover Tyre Jeannette Marais   Simera Technology Group			Accelerated Fatigue Testing for Composite Materials Fan Blades Anro Olivier   SUN	Photogrammetry Applications at the University of Pretoria Dr. Abrie Oberholster   UP		PLM: Capturing History while Establishing New Configurations Amelia Steyn   Babcock Ntuthuko Engineering	Ergonomics of a passenger transport system: A practical example using computer simulation Sarah Bannatyne   Ergonomics Engineering	
16:00 - 16:30	Relationship Between Vibrating Screen Dynamics and Self-synchronised Excitation Michael Victor   Kwatani				How Do You Know That What You Are Actually Measuring Is What You Think You Are Measuring? Prof. Ad Sparrius   Ad Sparrius System Engineering and Management		Design for Additive Manufacturing - A new era in Product Development Franco Barnard   ESTEQ	Building an Enterprise Level Discrete Event Simulation Model Marco Corsaro   Rotek Industries	
16:30 onwards	PRIZE GIVING AND JAZZ NETWORKING SESSION								