

South African IEEE Joint AP/MTT/EMC Chapter Conference, Stellenbosch, August 1-2, 2024
Programme Day 1 of 2

Time	Activity	Chair / Speaker
08:00	Registration & Coffee	
08:55	Conference Opening and Notices	Matthys M. Botha, <i>Stellenbosch University</i>
Opening Session: Day 1		Dirk De Villiers, <i>Stellenbosch University</i>
09:10	Keynote: Net ZERO Radio Communications Use of SWIPT for IoT Applications	Nuno Borges Carvalho, <i>Universidade de Aveiro, Portugal</i>
09:40	Keynote: Invention of the Microstrip Patch Antenna in South Africa 52 Years Ago in 1972	Johannes H. Cloete, <i>Emeritus Professor, Stellenbosch University</i>
10:10	Coffee Break	
Session: Systems and Receivers		Tinus Stander, <i>University of Pretoria</i>
10:50	Design and Challenges Faced by the CW Radar System Used to Power Inrange Golf	Ockert Jacobs, <i>Alphawave Golf</i>
11:10	The Design Challenges in SATCOM Systems - Positioning for Future Aeronautical Applications	Willem Koen, <i>Thales</i>
11:30	SDR vs RFSoc Type Transceivers. How do Modern Integrated Transceivers Compare to Classical Receiver Architectures?	Christo Nel, <i>Hensoldt GEW</i>
11:50	Direct RF Frequency Digitisers for Radio Astronomy Applications	Sias Malan, <i>South African Radio Astronomy Observatory</i>
12:10	Sponsor Talk: How to Address mm-wave Signal Detection and Characterization	Ferdinand Gerhardus, <i>Tamashi / Anritsu</i>
12:25	Lunch	
Session: Electromagnetic Compatibility		P. Gideon Wiid, <i>University of Cape Town</i>
13:50	On the Importance of an EMC Management Plan in Electric Utility Projects	Pieter Pretorius, <i>TERRATECH</i>
14:10	Managing Radio Frequency Devices in the Danger Area of Explosives Manufacturing Plants	Callie Fouche, <i>ITC Services</i>
14:30	Less Snakes, More Ladders, and a Weighted Dice: Improving the Odds Through Diagnostic Pre-Compliance Testing	Kurt M. Coetzer & Joely A. Andriambelosen, <i>MESA Solutions (Pty) Ltd</i>
14:50	Electromagnetic Interference from an HVDC / HVAC Cable Crossing to a Submarine Pipeline with Focus on Diver Safety	Pieter Pretorius, <i>TERRATECH</i>
15:10	Sponsor Talk	Qfinsoft / Ansys
15:25	Coffee Break	
Session: Modelling		Leanne Johnson, <i>Stellenbosch University</i>
16:00	Yield Optimization of a 38-Variable Passive Diplexer Structure Using NLPLS-based PCE	Leanne Johnson, <i>Stellenbosch University</i>
16:20	Developments in MoM Formulations for Analysis of Antenna Arrays and Wires	Matthys M. Botha, <i>Stellenbosch University</i>
16:40	Student Poster Session and Sponsor Workshops * <u>Qfinsoft / Ansys</u> * <u>Tamashi / Anritsu</u> : <i>PhaseLync vs Historical Antenna System Setups - New Technology Allows for Better Performance at Lower Cost</i> , Ferdinand Gerhardus	
18:30	Banquet, 18:30 for 19:00, Until Late, at De Warenmarkt Restaurant , Corner of Van Riebeeck and Ryneveld Streets	

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Programme Day 2 of 2

Time	Activity	Chair / Speaker
8:15	Registration & Coffee	
	Opening Session: Day 2	Tinus Stander, <i>University of Pretoria</i>
9:00	IEEE Society Presentations	Society Representatives
9:30	Keynote: Flexible, Wearable, Disposable Wireless Communication and Sensing Systems Through Additive Manufacturing	Atif Shamim, <i>King Abdullah University of Science and Technology, Saudi Arabia</i>
10:00	Keynote: Transfer Function Design for SMC Filters on Printed Circuit Boards	PW van der Walt, <i>Emeritus Professor, Stellenbosch University</i>
10:30	Sponsor Talk	EMSS Antennas
10:45	Coffee Break	
	Session: Synthesising and Manufacturing Microwave Devices	Werner Steyn, <i>Stellenbosch University</i>
11:20	Filter Arrays for 100GHz Systems	Petrie Meyer, <i>Stellenbosch University</i>
11:40	Ultrawideband Miniaturized Klopfenstein Impedance Transformer	Joseph Pembamoto, <i>Poynting Antenna (Pty) Ltd</i>
12:00	Advanced Microfabrication at the Carl and Emily Fuchs Institute for Microelectronics	Heinrich Laue, <i>University of Pretoria</i>
12:20	Sponsor Talk	Hensoldt
12:35	Lunch	
	Session: Antennas I	Jacki Gilmore, <i>Stellenbosch University</i>
13:50	Phaseless Near-Field Measurements of Active 5G Antennas	Paul van Jaarsveld, <i>Vodacom (Pty) Ltd</i>
14:10	Evaluation of GNSS Anti-Jamming Antennas with Controlled Radiation Patterns	Vian Reynders, <i>Saab Grintek Defence</i>
14:30	Active Integrated Array Design Philosophies and Measurement Approaches	Jacki Gilmore, <i>Stellenbosch University</i>
14:50	Assembly and Measurement of a Wideband Feed for the Ghana Radio Telescope	Michael Johnston, <i>South African Radio Astronomy Observatory</i>
15:10	Coffee break	
	Session: Antennas II	Arnold de Beer, <i>University of Johannesburg</i>
15:30	Extending the Bandwidth of Double Ridge Guide Horn (DRGH) Antennas	Bennie Jacobs, <i>University of Pretoria & Saab Grintek Defence</i>
15:50	Electrically Small Antenna for Terrestrial Wildlife Tracking	Arnold de Beer, <i>University of Johannesburg</i>
16:10	Comparison of Measurement Facilities for Cellular Base-Station Antennas	Gordon Mayhew-Ridgers, <i>Vodacom (Pty) Ltd</i>
16:30	Conference Closing	Organising Committee