

# 2009 SA IEEE AP&MTT Conference Programme

<b>Day 1 : Monday, 30 March 2009</b>		
<b>Arrival and Registration (Coffee/Tea): 8h00-9h00</b>		
<b>SESSION 1: Opening and Plenary 1 [9h00-10h30]</b>		
9h00-9h30	Opening: Prof Petrie Meyer (Conference chair) and Dr Riana Geschke (IEEE SA AP/MTT chapter)	
9h30-10h00	Plenary: Dr Frans Meyer <i>EM Software &amp; Systems</i>	The Business of Electromagnetics
<b>Tea/Coffee: [10h30-11h00]</b>		
<b>SESSION 2: Antennas [10h30-12h30] – Chair: MJ van Wyk</b>		
11h00-11h20	JAG Malherbe <i>University of Pretoria</i>	Unicorn in the garden (with an elliptic horn)
11h20-11h40	C Moreno de Jong van Coevorden <i>University of Granada, Spain</i>	Optimized design of broadband printed antenna
11h40-12h00	W Steyn <i>Reutech Radar Systems (Pty) Ltd</i>	Antenna design at RRS
12h00-12h20	L Botha <i>CSIR, DPSS</i>	Design, manufacture and test of a wideband reflector antenna system for a measurement radar
12h20-12h40	D Baker and F Venter <i>SAAB Avionics</i>	The challenges of testing an ultra-wideband COMINT DF and monitoring antenna system for submarine applications
12h40-13h00	J Joubert, JW Odendaal and JP Jacobs <i>University of Pretoria</i>	Etched slot arrays with corporate slotline feed networks
<b>Lunch: [13h00-1400]</b>		
<b>SESSION 3: Filters [14h00-15h40] – Chair: C van Niekerk</b>		
14h00-14h20	PW van der Walt <i>RRS, Stellenbosch University</i>	Time domain performance of Chebyshev filters
14h20-14h40	RH Geschke, B Jokanovic, and P Meyer <i>Stellenbosch University, IMTEL-Communications</i>	Split-ring resonators for compact filters
14h40-15h00	P Meyer <i>Stellenbosch University</i>	The design of high-performance microwave diplexers
15h00-15h20	H Swanepoel <i>Plexsa Manufacturing (Pty) Ltd</i>	Some challenges and implementation in non standard broadband filters
<b>Tea/Coffee: [15h40-16h10]</b>		
<b>SESSION 4: Computational Electromagnetics [16h10-17h10] - Chair: JAG Malherbe</b>		
16h10-16h30	DB Davidson and N Marais <i>Stellenbosch University</i>	Time domain analysis of EM fields using FEM and FDTD
16h30-16h50	M Bingle, F Illenseer, U Jakobus, M Schoeman, and J van Tonder <i>EM Software &amp; Systems-SA (Pty) Ltd</i>	New kernel features in the electromagnetics modelling code FEKO
16h50-17h10	G Mayhew-Ridgers, JW Odendaal and J Joubert <i>Vodacom (Pty) Ltd, University of Pretoria</i>	Capabilities of diffraction theory for horn antenna gain calculations
<b>Pre-Dinner Drinks: [17h30-19h00]</b>		
<b>Dinner: [19h00-21h00]</b>		

**Day 2 : Tuesday, 31 March 2009**

**Arrival and Registration (Coffee/Tea): [8h00-8h30]**

**SESSION 5: Plenary 2 [8h30-9h00]**

8h30-9h00	Anita Loots <i>Square Kilometre Array</i>	The SKA, MeerKAT and KAT-7 telescopes - overview and update
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**SESSION 6: KAT/SKA [9h00-10h40] – Chair: J Joubert**

9h00-9h20	R Lehmensiek, I Theron, I Liebenberg, C van Niekerk, D Botha, SJ Marais and LJ du Toit <i>EMSS Antennas (Pty) Ltd</i>	Feeding the MeerKAT: a cryogenic feed package at prime focus
9h20-9h40	C Williams <i>Tellumat (Pty) Ltd</i>	The development of the radio frequency equipment for the Karoo Array Telescope
9h40-10h00	DIL de Villiers, P Meyer and KD Palmer <i>Stellenbosch University</i>	Development of a Wideband Ortho-Mode Transducer
10h00-10h20	PG Wiid, HC Reader, RH Geschke, PS van der Merwe and PL Kibet <i>Stellenbosch University</i>	Developing RFI studies on KAT-7: lightning, earthing and cabling

**Tea/Coffee: [10h20-10h50]**

**SESSION 7: Devices and Systems [10h50-13h30] – Chair: PW van der Walt**

10h50-11h10	HA van Biljon and C van Niekerk <i>Grintek Ewation (Pty) Ltd</i>	Grintek Ewation: RF intelligence and security solutions
11h10-11h30	WJ van den Berg, CA Nel, GIP Veale, HA van Biljon and C van Niekerk <i>Grintek Ewation (Pty) Ltd</i>	Wideband software defined radios for electronic warfare applications
11h30-11h50	L Botha, M Adams, and J de Jager <i>CSIR, DPSS</i>	Design of a stable local oscillator
11h50-12h10	MR Inggs, G Lange and Y Paichard <i>University of Cape Town</i>	Propagation modelling for passive coherent location radar systems
12h10-12h30	H Johnson and J Colyn <i>EDH (SA) (Pty) Ltd</i>	Radar applications in sport
12h30-12h50	MJ van Wyk <i>EMSS Consulting (Pty) Ltd</i>	ICNIRP Compliance of a cellular phone base station network
12h50-13h10	JG Hoole and KD Palmer <i>Stellenbosch University</i>	Antenna position considerations for the resolution of grating lobe ambiguities in 3D staring radar

**Closing: [13h10 -13h30]**

**Lunch: [13h30-14h30]**