

**Duration: 08:30 - 12:30**

**Room: Kopenhagen**

**WM-07**

**mm-Wave Antenna Measurement Techniques and Facilities Planning**

**Organisers:**

Tinus Stander, University of Pretoria, South Africa

Bart Smolders, Eindhoven University of Technology, The Netherlands

**Abstract**

With the proliferation of communications and remote sensing applications in the mm-wave (30 - 300 GHz) band, there is an increased need for reliable test facilities and test methods for various antennas in this frequency band. Although the theory and principles of measurement are quite similar to those of microwave antennas, the techniques and facilities setup pose unique challenges that require innovative solutions.

This workshop brings together presenters with practical, hands-on experience in mm-wave antenna measurement to discuss how they overcame some of these challenges. These include the design of test facilities for on-chip mm-wave antennas, near-field scanning techniques, practical cost-saving measures, and industrialised test solutions. The workshop concludes with panel discussion on the future challenges in mm-wave antenna measurements.

***Programme***

***08:30 - 08:40 Welcome and Introduction***

Tinus Stander, UP, South Africa

***08:40 - 09:25 Near, and Far-Field Measurement Techniques for Accurate Characterization of Millimetre Wave Antennas***

Bart Smolders, Ad Reniers, Sander Geluk, Qiang Liu, Eindhoven University of Technology (TU/e), The Netherlands

***09:25 - 10:10 Integrated Antenna Measurements Using a Robotic Arm***

Linus Böhm, Ulm University, Germany

***10:10 - 10:50 Break***

***10:50 - 11:35 Low-Cost Approaches to mm-Wave Antenna Measurements***

Edward Hunter, Tinus Stander, UP, South Afrika

***11:35 - 12:20 mm-Wave and Sub-THz Antenna Measurements: From Academic to Industrial Test Solutions***

Ana Arboleya, Cyril Luxey, Univ. Nice, France

Frederic Giancesello, ST Microelectronics, France

Guillaume Ducourmau, IEMN, France

***12:20 - 12:30 Future Challenges in mm-Wave Antenna Measurements***

Panel discussion