



Agilent Technologies

Electronics, RF and MW Measurements Seminar

King Fahd University of Petroleum & Minerals – 14th March 2012

*Join **Modern Media Systems** and **Agilent Technologies** at this complimentary full day seminar*

Engineers working today in education, communications, wireless and aerospace defense industries are faced with increasingly complex measurement challenges and rapidly changing technology. A strong foundation in basic measurement techniques is essential for success. This seminar will improve your understanding of basic RF and digital measurements, including real applications, thus improving your efficiency and effectiveness whether you are in academia, R&D or design & test.

MMS and Agilent Technologies will provide a FREE full day forum (agenda attached), where you can see our latest solutions, and expand on the practical knowledge you need to have to perform your day-to-day-measurements. The seminar will start at 8.45 A.M. and finish just after 3:00 P.M. Application and product experts from MMS and Agilent will be on-hand to give demonstrations and technical presentations around the latest innovations, features and capabilities in basic fundamentals.

Who should attend?

This event will be useful to recent engineering graduates and technicians, experienced R&D engineers moving towards RF or digital, and technicians and engineers involved in design & test.

We look forward to welcoming you to this event.

Best regards,

Modern Media Systems and Agilent Technologies

To register - Fax back this form, call, email or visit us online

SEATING IS LIMITED

Register Today!

Don't miss this unique opportunity, where joining us for just a few hours will be a great investment into your future.

Saudi Arabia

Tel 01- 4633312 Ext. 5212

Fax 01- 4651713

Email wgul@alfaisaliah.com

Registration Information

Name _____
Company _____
Address _____
City _____
Phone _____
Email _____

- ☐ Yes, I will attend the seminar
☐ I am unable to attend, please send me the handout material

Agenda

Date:

Wednesday March 14th, 2012

Venue:

*Auditorium, Building 10
KFUPM*

0830 - 0845

Registration

0845-0900

Opening Note by Chairman, EE Department & Agilent Technologies

0900-1015

Application Advances in Vector Signal Generation and Analysis

1015-1030

Coffee Break

1030-1200

Advances in Active Component Measurements Using Vector Network Analyzer (VNA)

1200-1315

Prayer/ Lunch break

1315 -1430

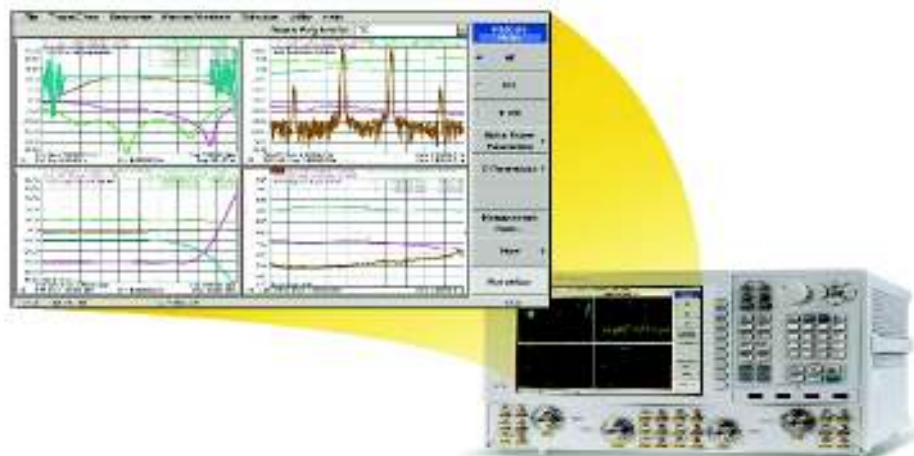
High Performance Oscilloscopes for Teaching and Research

1430 - 1445

Coffee Break

1445 -1530

**Make Field Testing easier
with Agilent's I&M RF Analyzers**



Seminar Paper Abstracts

Paper I: Application Advances in Vector Signal Generation and Analysis -

Speaker: Stewart Forsyth

Spectrum Analyzers and Signal generators have made significant advances in recent years to improve the ability to generate and analyze complex modulated signals. This presentation will look at the advances that have been made and how this reflects in different applications used in the Aerospace Defense environment and modern wireless communication systems. We will look at applications such as Phase Noise, Noise Figure as well as measuring digital modulated signals. We will also look at how the frequency range of both generation and analysis can be extended to the THz region as well as to very wide bandwidth applications.

Paper II: Advances in Active Component Measurements Using Vector Network Analyzer -

Speaker: Michel Joussemet

This presentation will discuss the principles of measuring high-frequency electrical networks with network analyzers. Attendees will learn about all the possible measurements made with network analyzers including characterization of linear and nonlinear device behavior. The session starts by basics on RF fundamentals, concepts of reflection, transmission, S -parameters, up to the introduction of the latest X-parameters. The presenter will review the major components of a network analyzer as well as the advantages and limitations of different hardware approaches. Accuracy enhancement and various calibration techniques will be discussed. Finally, typical applications based on swept-frequency and swept-power measurements, commonly performed on filters, amplifiers and converters will be presented.

Paper III: High Performance Oscilloscopes for Teaching and Research -

Speaker: Michel Joussemet

The latest oscilloscopes evolutions made them even more than previously the universal tools for Electrical Engineering teaching labs. Oscilloscope is no more only just an oscilloscope, but can address although new applications like bus decoding, digital timing analysis, power analysis and advanced waveform math, even including sometime a function generator. This presentation will review the various capabilities of today's oscilloscopes from entry level up to more advanced capabilities such as debug, analysis and compliance testing





Paper IV: Make field testing easier with Agilent's I&M RF Analyzers -

Speaker: Stewart Forsyth

Installation and Maintenance applications include a wide range of challenges for wireless operators to Microwave radar installations to interference analysis. One challenge that covers all applications is how the test equipment can meet the technical requirements as well as simplify the measurements for the users.. In this paper we will look at some of the measurements that require to be made as well as the different tools and measurements that allow the user to make these measurements as easy as possible.

Speaker Profiles

Stewart Forsyth



Stewart Forsyth is Business Development Engineer in EMEA responsible for the Signals Analysis and Signal Generator products from Microwave and Communications Division. Stewart has been with Agilent for almost 30 years and has worked in different roles in Manufacturing, Manufacturing Engineering and Technical Marketing. In addition to the generator and analyzer products he has worked on other products including Power Meters, Noise Figure Analyzers as well as Wireless one box testers.

Michel Joussemet



Michel Joussemet is an Agilent Technologies RF/ μ W Application Engineer. Michel has been with Agilent for 13 years and has worked in different roles as such a Calibration Engineer, Quality and Metrology Manager and Support Application Engineer. In addition to his actual focus on Network analyzer, Signal generators and analyzers supporting aerospace applications, Michael has worked on supporting various instruments such as scopes, power meters, arbitrary waveform generators.

