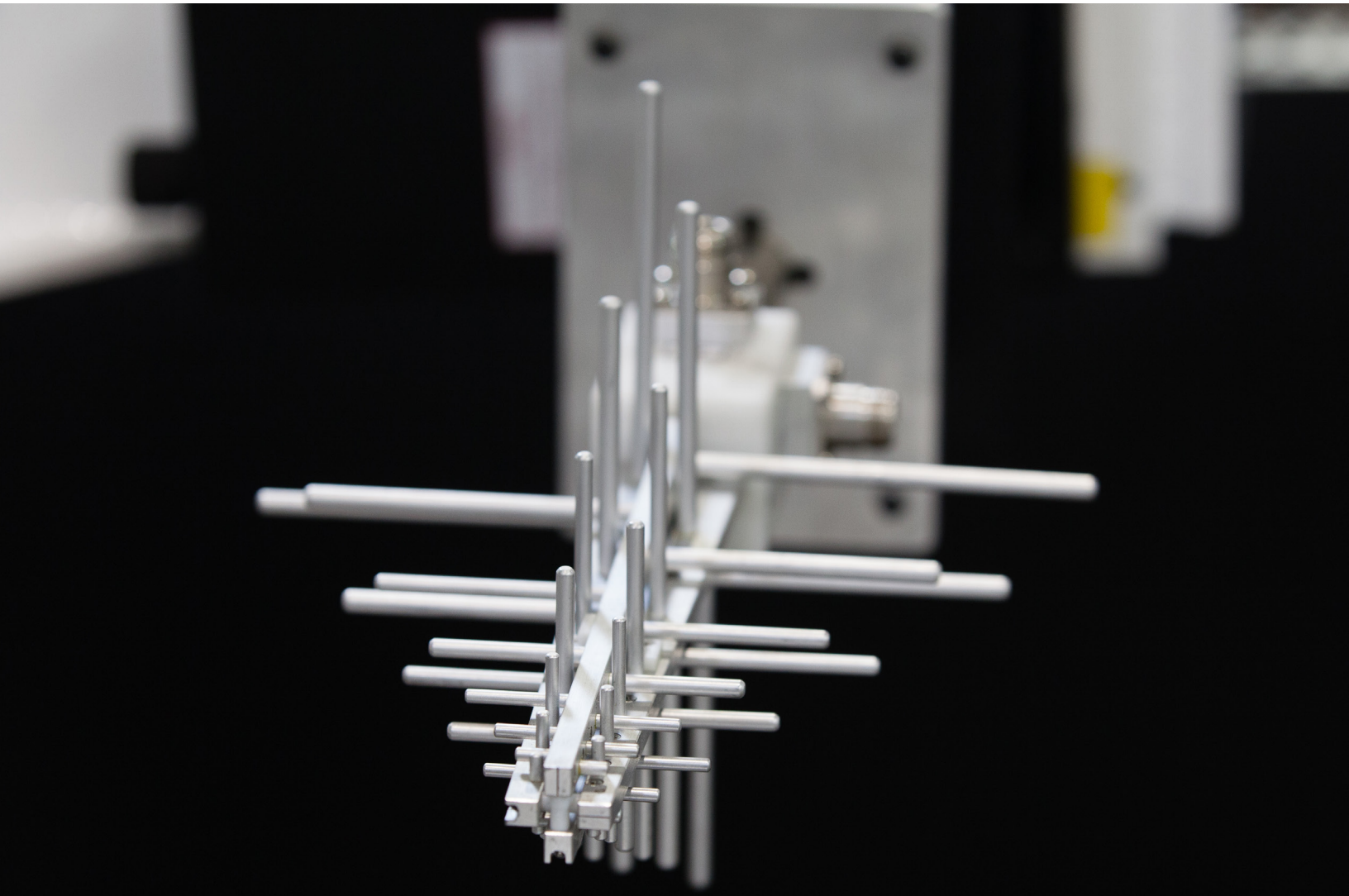
Short Course

Near-Field Antenna Measurements



March 7–10, 2017

NSI-MI Technologies
19730 Magellan Drive
Torrance, CA 90502

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COURSE DESCRIPTION

This course will cover theoretical and practical aspects of antenna near-field testing. The intended audience is engineers and technicians using and operating NSI near-field antenna test systems. Planar, cylindrical & spherical methods will be covered. The course will contain theoretical presentations to provide a background for the near-field antenna technique. The course will focus on the practical aspects of near-field measurements and include demonstrations with a live test system. A near-field scanner with a full suite of NSI2000 software will be available for demonstrations during this course.

Currently in its 12th year, the four day intensive course will focus on the NSI product line in order to allow demonstration of various aspects of near-field testing and also to educate attendees on the efficient use of the various tools provided by NSI. A session on the use of NSI2000 and the NSI2000 scripting language will provide formal comprehensive training on this capability of the software.

The presenters of this course have been chosen to provide a wide expertise base covering theory, application, software, and instrumentation aspects of near-field antenna testing.

COURSE PRESENTERS

NSI-MI Lecturers including:

Stuart Gregson • Daniël Janse van Rensburg • Allen Newell • Greg Masters • Bruce Williams

COURSE OUTLINE

Day 1 (9am- 5pm)

1. Introduction
2. General Antenna Measurement (Gain, Directivity, Side lobe Level, Beamwidth, etc.)
3. Introduction to Near-Field Far-Field Transforms
4. Co-ordinate Systems and Positioners
5. Polarization and Antenna Measurements
6. Measurement System Hardware Overview
7. NSI-MI Factory Tour
8. NSI2000 Software Overview

Day 2 (9am- 5pm)

1. NSI2000 Software Demonstration
2. Measurement Errors
3. Nearfield probes and Probe Characterization
4. RF Sub-systems Introduction
5. Acquisition Overview
6. Measurement Demonstration

Day 3 (9am- 5pm)

1. NF Antenna Measurement Theory (PNF)
2. Back Projection (MHM)
3. Gain Measurements
4. NSI2000 Scripting
5. NF Antenna Measurement Theory (CNF)

Day 4 (9am- 4pm)

1. NF Antenna Measurement theory (SNF)
2. Advanced Measurement Topics
3. RF Sub-systems Advanced Testing (Pulsed, High-Power)
4. Spherical Near-Field alignment
5. Mathematical Absorber Reflection Suppression (MARS)

REGISTRATION FORM

Early enrollment is highly recommended.
Registration Deadline: January 30, 2017
Fee: $2,750 per person (USD)
This fee, which must be received prior to the start of the course, will include lecture notes, a copy of the new text book *Theory and Practice of Modern Antenna Range Measurements* by Stuart Gregson & Daniel Janse van Rensburg, and lunch during the course.

NAME: _____ **TITLE:** _____

COMPANY NAME: _____ **PHONE:** _____

ADDRESS: _____ **FAX:** _____

CITY, STATE, ZIP: _____ **EMAIL:** _____

PAYMENT BY CHECK

Please make all checks payable to **NSI-MI Technologies.**
Mail your check along with a printed copy of this Registration Form to:

NSI-MI Technologies
ATTN: Accounts Receivable
19730 Magellan Drive
Torrance, CA 90502

PAYMENT BY CREDIT CARD

Please fill out the below information for credit card authorization:

CARDHOLDER NAME: _____

COMPANY NAME ON CARD (IF APPLICABLE): _____

BILLING STREET ADDRESS: _____

BILLING CITY, STATE, ZIP: _____

EMAIL FOR PAYMENT RECEIPT: _____

CARD TYPE: VISA ☐ MC ☐ AMEX ☐ **CREDIT CARD NUMBER:** _____

EXPIRATION DATE: _____ **CVV CODE:** _____ **AUTHORIZED SIGNATURE:** _____

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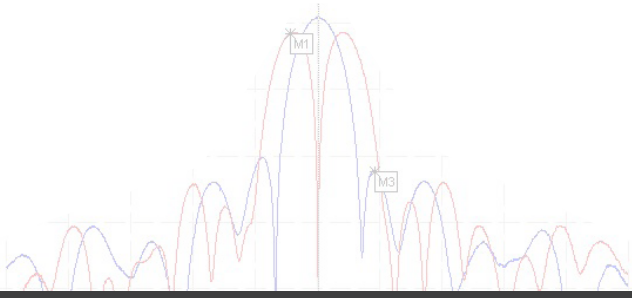
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