

27th Annual Coordinate Metrology Systems Conference

- Date:** 25 -29 July 2011
- Location:** Phoenix, AZ. Arizona Biltmore Hotel
- Cost to attend:** \$495 till May 20, May 21-June 24 \$550, After June 24 \$600
(Cost includes conference program, exhibit hall entrance, admittance to general sessions, admission to all workshops, daily breakfast, daily lunch, and admittance to evening networking events on Monday and Wednesday.)

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What is CMSC:

With more than 2000 members in companies representing eleven industries, CMSC is the only international, professional organization uniting and supporting the users of 3D Portable Metrology.

Why Attend CMSC:

By attending the CMSC 2011 Annual Conference & Exhibit Hall you'll have access to the world's best support community in the metrology industry.

Who Attends CMSC:

- Users of 3D metrology technology
- Users of Metrology Hardware and software
- Vendors of 3D Portable Metrology solutions
- Service Providers
- Designers and CAD Support Specialists
- Academics and researches in the field of large volume metrology

What you will experience at CMSC:

- Practical user-driven knowledge that you can implement at your job immediately.
- Access to using members, vendors, and service providers through keynote presentations, educational sessions, hands-on training opportunities and networking events.
- Direct interaction with more than a 500 end users of Metrology solutions, including developers, decision makers and vendors.
- A preview of the latest innovations and technology advancements by the top vendors in the industry at the vendor expo.
- What you need to know about New technology including hardware and software
- How to successfully work in a heterogeneous environment.
- Understand how others are having like issues and how they are solving them.
- How you can implement 3D portable metrology solution in your industry learning how other implementations have been handled.

- What are the challenges of collaboration in a 3D environment including product development, production within the supply chain and post-delivery issues.
- What You'll Learn. The conference program is specifically developed to deliver content focused on the most pressing Metrology issues of the day.

Workshop/Conference Highlights:

- Education: Presentation and papers are given across the industry
- Training: Hands on training in breakout sessions and workshops
- User Group Meetings: Several metrology OEM's hold their annual user group meeting.
- Exhibit Hall: Top product vendors showcasing the latest technology solutions
- Networking: Interaction with others that are having the same issues you are, multiple opportunities to make professional connections by sharing best practices, success stories, solutions, and product issues

Your Goal	How CMSC Conference Attendance Supports Your Goal
Stay current on industry trends and keep your skills up-to-date	CMSC is fully committed to continuing its rich tradition of providing best in class education developed by and for members of the CMSC Community. CMSC events present the highest quality user-focused education and training available. Sessions are presented by top individuals and product experts and are geared to help attendees solve real user issues.
Network and share best practices with your peers	As the nation's only user-driven event for 3D portable Metrology solutions, you will be in the same rooms with the closest peers and like-users no matter what industry you represent. The conference provides a wide variety of networking opportunities, including networking breaks, lunches and evening receptions.
Acquire vendor-neutral information	CMSC attracts the industry's leading vendors in its Exhibit Hall to provide you with the most up-to-date product and support information available. Visit the Exhibit Hall during lunch, breaks and free time to evaluate different solution providers and their technologies to find the one that may best fit your organization's needs.
Connect with others to acquire new ideas and inspiration	With more than 24 education sessions and hands-on training opportunities, and access to experts from 3D portable Metrology industry. It will help you see your work in a new perspective. This event will help provide you with new perspectives and skills that will immediately increase your value to your organization.

2010 Technical Presentations Shown on next Page

2010 Technical Content:

On this page is a listing of the technical papers that were presented at the 2010 conference. The agenda included presenters from 7 countries and national measurement institutes from the US and the UK. In addition to the technical presentation listed below, there were several workshops: Update of the CMS Certification Committees efforts, 3D Imaging technology, a gauge R&R and statistical analysis workshop, and a GD&T workshop. In support of these workshops, there was a measurement study conducted on the exhibit hall floor that prompted attendees to measure a calibrated artifact with first principle measurement tools.

2010 Presentation Line Up (Click to link to abstract on CMSC website)

Keynote Address - Thomas Greenwood - Spirit AeroSystems, Inc
Laser Radar Metrology Measurements through a Chamber Window of the James Webb Space Telescope Components
Simultaneous Multiple Laser Tracker Solution to Align NIF's 192 Laser Beams
Calibration of laser tracker alignment errors using a network measurement
A320 Aircraft Assembly Line Alignment Measurement Process; Tianjin - China
Choosing test positions for laser tracker evaluation and future Standards development
Automated Outer Mold Line (OML) Measurements and Control
Comparison Between Laser Radar and Photogrammetry
Close Range Photogrammetry: A Tool for Shape Measurement & Reflector Alignment
Understanding Laser Tracker Targets
Blending the State of the Art With the Tried and True: Integration of Electronic and Optical Instruments
Virtual inverse fringe projection
Characteristics, Accuracy and Reverification of Robotized Articulated Arm CMMs
Optical Cooperativity in regards to Fringe projection systems
Determining 6DOF A-TOM - a low-cost module for range enlargement of low-range systems
Laser Tracker Measurements for Hydro Units: Benefits Evaluation and Sharing of Techniques
How good is your scan The state of 3-D Imaging Standards
On the characteristics of Laser Radar
Implementation of the Quality Assurance Matrix and methodology (QAM)
NASA/GSFC on JWST Integrated Science Instruments Module using multiple Laser Tracker stations
Measurement Assisted Determinate Assembly (MADA) of Large Composite Structures
System improvements of 787 wing skin automatic measurement system
Training for portable Coordinate Measurement and Large Volume Metrology
The Correlation of As-Built Products to As-Designed Models Closing the loop on dimensional measurement