Abstract

With ever increasing pursuit of tighter tolerances for product specifications it is important to understand the significance of varying tolerances and its impact on measurement tool selection. Along with the selection come the challenges for establishing the requirements and acceptance criteria during installation and run-off. Fixturing the part, environmental conditions, GD&T or the lack of, measurement methods, and several other factors could influence our ability to gather valid data for analysis.

This talk will cover different 2D as well as 3D measurement instruments, techniques, their accuracies, how, why and where we would choose one system over another. A variety of parts including large castings; plastic injection molded components; precision machined medical device parts will be used as examples during this talk. A general overview of measurement software will be presented to the group.

Biographical Information

As the Director of Metrology at PQI since Nov. 2007, Anish Shah is providing leadership and direction in the field of metrology, chiefly concerning measurement equipment used in inspection, calibration, process development, and production applications. He continues to provide training on understanding of fundamental measurement principles, measurement systems analysis, and measurement practices with attention to evaluating and reducing measurement uncertainty. Prior to working for PQI, Anish has 10 yrs of experience working for the disc drive industry, automotive sector, as well as earth moving industry throughout several operations and plants supporting quality and dimensional metrology enhancement projects. He is a graduate of the Measurement Science program at the University of North Carolina/Charlotte and holds a Master’s in Technology Management from the University of St. Thomas in St. Paul. Anish is a Certified Quality Engineer and a current member of ASQ. Anish has been a member of SME since 1994 when he first joined as a student member and has served as chapter chair for the Minneapolis section.
**MEETING INFORMATION**

**MEETING COST:**
- $30  Non-members
- $25  Members
- $5 Full Time U of M Students

**SCHEDULE:**
- 5:00-6:15 Social (Cash Bar) in Bar
- 6:15-7:00 Dinner
- 7:00-8:00 Presentation

**PAYMENT:**
Credit card payment online at http://mnasm.org.
Checks or cash are due at check-in. Make checks payable to “MN Chapter ASM.”

**LOCATION:**
Green Mill Restaurant
2705 Annapolis Lane N
Plymouth, MN 55441
(763) 553-9000

The Green Mill is located northwest of the Twin Cities at the southeast intersection of Highway 55 and 494 in an industrial park area.

**HOW TO REGISTER:**
Register online at http://mnasm.org.
This month’s registration deadline is
**Friday, November 9th at Noon.**

**PLEASE NOTE:**
A registration deadline is necessary for group banquet reservations. Because of our catering agreement, if you have made your reservation by the deadline and are unable to attend, we must invoice you for your dinner because we are charged for it. If you make your reservation after the deadline, ASM will contact the caterer and try to accommodate your added reservation but a dinner is not guaranteed. However, you are always welcome to attend the presentation at 7:00 p.m.

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**Biographical Information (Continued from Page One)**

As Sales Engineer for AIS, **Chris Carlson** has been helping customers fill their need for dimensional inspection and reverse engineering solutions. Working with all industries has allowed him to gain a vast knowledge and experience all that the manufacturing world has to offer. Chris was a Mechanical inspector and CMM programmer at AIS while going to Dunwoody for Machine Tool Technology before graduating from UW-Stout for Manufacturing Engineering. He was a Designer, Manufacturing Engineer and Quality Engineer at Kohler - Engines before returning to AIS as Technical Sales Engineer in June 2008. With 9 years of experience in the field his strengths are dimensional inspection techniques and Geometric Dimensioning and Tolerancing.
On October 24th, the MN Chapter ASM visited the University of Minnesota for a student networking event. It included a reception with students and U of M faculty, a Materials Science undergraduate poster session, an update of the MSE program, and a presentation on Crystalline Oxide Ceramics by Professor Bharat Jalan. Our thanks is extended to Professor Lorraine Francis and the entire U of M staff for hosting the successful event.

Holiday Party Plans

Plans are in the works for a Holiday Wine Tasting Party on December 5th. Spouses and guests of members are invited (age 21 and older). Details, such as the time, location, and cost, are yet to be determined. More information will be posted and emailed to members as it becomes available. Stay tuned!
## 2012-2013 MN Chapter Program Schedule

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<tr>
<th>Meeting Date</th>
<th>Topic</th>
<th>Speaker</th>
<th>Meeting Location</th>
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<tr>
<td>Wednesday September 19th</td>
<td>TOUR of Element Materials Technology</td>
<td>Josh Schwantes Element</td>
<td>Element St. Paul, MN</td>
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<tr>
<td>Wednesday October 24th</td>
<td>Student - Industry Networking Event</td>
<td>Professor Bharat Jalan University of Minnesota</td>
<td>U of M Minneapolis, MN</td>
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<tr>
<td>Wednesday November 14th</td>
<td>“Measurement Systems &amp; Techniques”</td>
<td>Anish Shah, Productivity Quality Inc</td>
<td>Green Mill Plymouth, MN</td>
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<td>Chris Carlson, Adv Inspection Services</td>
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<tr>
<td>Wednesday December 5th</td>
<td>Holiday Party</td>
<td>TBD</td>
<td>TBD</td>
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<tr>
<td>Wednesday January 16th</td>
<td>“Exotic and Unusual Testing Applications”</td>
<td>Erik Schwartzkopf MTS</td>
<td>Green Mill Plymouth, MN</td>
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<tr>
<td>Tuesday February 26th</td>
<td>“Materials for Medical Devices” Annual Full Day Seminar</td>
<td>Various Speakers / Professional Dev. Hours Cert. Available (5)</td>
<td>Hennepin Technical College Brooklyn Park, MN</td>
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<tr>
<td>Thursday March 28th</td>
<td>Annual MinnTS (Technical Symposium)</td>
<td>TBD</td>
<td>Medtronic Headquarters Fridley, MN</td>
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<td>Wednesday April 17th</td>
<td>TBD Past Chair Night / Scholarships / Awards</td>
<td>TBD ASM Trustee</td>
<td>Green Mill Plymouth, MN</td>
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<td>Wednesday May 15th</td>
<td>TBD</td>
<td>TBD</td>
<td>Green Mill Plymouth, MN</td>
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