

# International Conference on Operations Excellence and Service Engineering, Orlando, Florida, USA, September 10-11, 2015

## Workshop on Geometric Dimensioning and Tolerancing (GD&T)

September 10, 2015 (Thursday) Rosen Plaza Hotel, Orlando, Saloon 8 Time: 4:00 - 7:00 pm

http://iieom.org/icmoe2015/?page id=527

GD&T Training certificate will be provided, and CEU is available

Register Here: http://iieom.org/ieom/ieom-society-payment/

## **Training Topic:**

The training will provide a thorough understanding and working knowledge of the Geometric Dimensioning & Tolerancing (GD&T) which is used on engineering drawings and solid models for describing nominal geometry and its allowable tolerances in product design, manufacturing, assemblies and inspections. It will also cover the different terminologies, symbols, rules, and tolerance stack-up in the product development processes. ASME Y14.5-2009 standard will be used.

### **Training Outline:**

- Symbols, rules and principles instituted by the ASME Y14.5-2009 Standard
- Fundamentals of GD&T
- Tolerance Stack-Up Analysis
- Statistical Tolerancing

#### **Major Concepts:**

- Angularity

- Circular Runout

- Circularity (Roundness)

- Concentricity

- Cylindricity - Datum Features - Flatness

- Functional Gages

- Material Conditions (MMC, LMC, RFS)

- Mating Part Tolerancing - Parallelism

- Perpendicularity (Squareness)

- Profile

- Straightness - Symmetry

- Total Runout

- True Position

Speaker: Dr. Ahad Ali, Assistant Professor and Director of BSIE & MSIE Program at LTU

Dr. Ahad Ali is an Associate Professor, and Director of Bachelor or Science in Industrial Engineering & Master of Science in Industrial Engineering in the A. Leon Linton Department of Mechanical Engineering at the Lawrence Technological University, Southfield, Michigan, USA. He earned B.S. in Mechanical Engineering from Bangladesh Institute of Technology, Khulna, Masters in Systems and Engineering Management from Nanyang Technological University, Singapore and PhD in Industrial Engineering from University of Wisconsin-Milwaukee. Dr. Ali was Assistant Professor in Industrial Engineering at the University of Puerto Rico - Mayaguez, Visiting Assistant Professor in Mechanical, Industrial and Manufacturing Engineering at the University of Toledo, and Lecturer in Mechanical Engineering at the Bangladesh Institute of Technology, Khulna. He has published numerous journal and conference papers. Dr Ali has completed research projects with Chrysler, Ford, New Center Stamping, Whelan Co., Progressive Metal Manufacturing Company, Whitlam Label Company, DTE Energy, Delphi Automotive System, GE Medical Systems, Harley-Davidson Motor Company, International Truck and Engine Corporation (ITEC), National/Panasonic Electronics, and Rockwell Automation. His research interests include quality, reliability, design and manufacturing, simulation, optimization, scheduling, PLM, lean and supply chain. He is member of IIE, INFORMS, SME and IEEE.

Dr. Ali has initiated Smart Manufacturing and Lean Systems Research Group. He formerly was president of the IIE Lean Division. Dr. Ali has been chair of the IIE Lean Student Paper Competition since 2007. He is one of the founder of the International Conference on Industrial Engineering and Operations Management and IEOM Society.

Please contact conference@iieom.org for details.