

January 23 – 24, 2017
The Florida Hotel & Conference Center | Orlando, Florida

TE-15 | Tuesday, January 24 | 8:00 AM – 5:00 PM | 1-Day Course

Title: Measuring and Characterizing Surface Topography

Instructor: Hy Tran, Sandia National Laboratories

Technical Level:

Intermediate – students must possess as a basic understanding of course concepts

Course Description: Surfaces cover everything—and they influence behavior and performance of parts. In this tutorial, we will focus on the topography of surfaces—the texture and roughness. Texture includes both short spatial wavelength components (what one would call roughness) and longer wavelength components (what one would call waviness and form). Texture may have directionality (lay). These qualities are specified in mechanical product drawings, and the evaluation of roughness is defined in both ASME and ISO standards. This tutorial provides an introduction to surface metrology and to the evaluation of roughness.

Learning Outcomes:

1. Basic Knowledge of vocabulary, definitions, drawing symbols in surface topography measurements
2. Comprehensive Knowledge of evaluation methods and surface roughness parameters
3. Basic Knowledge of contact and non-contact methods used in measuring surface topography

Instructor's Biography:

Hy Tran has Bachelors' degrees in life sciences and in mechanical engineering from MIT. His MS and PhD at Stanford University were in mechanical engineering. Hy is a registered professional engineer. Hy has worked in manufacturing and product development, and has been principal investigator on many engineering research projects.