



Course Catalog Number: Trm-3
Course Track: Risk Management
Course Topic: Decision Risk
Course Career Level: Intermediate

Monday, August 26 | 8:00 AM - 12:00 PM | 1/2-Day AM (4 Hours)

Course Title: Understanding Pass/Fail Measurement Decision Risk and How to Comply with ISO/IEC 17025:2017

Instructors: Bob Stern and Jonathan Harben PhD, Keysight Technologies

Abstract: This tutorial will cover: What is measurement decision risk? Specific vs. global (average) risk; When to use each type; Techniques for estimating approximate per cent risk; Inputs needed; Tables and figures to interpolate; Importance of considering both False accept and false reject risk; Level of risk associated with several common decision rules in use today; Guidance flowchart for general selection of appropriate decision rules; Class examples; Class exercises.

Learning Objectives:

1. What is measurement decision risk?
2. Specific vs. global (average) risk.
3. Techniques for estimating approximate per cent risk.

Instructors Curriculum Vitae (CV):

Bob Stern graduated from the University of Wisconsin with Bachelor and master's degrees in Electrical Engineering. He has worked for 6 different divisions at Hewlett Packard, then Agilent, and now Keysight Technologies. Since 2003 Bob has been active on NCSL International committees concerned with calibration standards, including the subgroup that wrote the Z540.3 Handbook. He is chair of the NCSLI 174 Standards Writing Group and is active at ILAC standards meetings. He leads efforts to align Keysight's calibration service deliverables with ISO 17025, ILAC-G8, ILAC-P14, and ANSI Z540.3. He is the presenter of 13 YouTube videos on various topics of calibration interest.

Jonathan Harben is the Chief Metrologist for Keysight Technologies Services Solutions Group where he is responsible for global metrology decisions related to measurement traceability, measurement decision risk management, and harmonization of best practices. He started his career as a Metrologist at NASA's Kennedy Space Center (KSC) where he worked in the Standards Lab, maintaining electrical reference standards for multiple measurement disciplines. He joined Keysight Technologies in Santa Rosa, California in 2013. Jonathan earned a B.S. in Electrical Engineering from the University of Florida, and a master's degree in Optics from the University of Central Florida College of Optics and Photonics (CREOL).

Jon has been active in NCSL International since 2010 and is author or co-author of 10 papers and has been an active contributor to 170 series committees.