



2019 NCSL INTERNATIONAL
WORKSHOP & SYMPOSIUM
August 24–29, 2019
Huntington Convention Center, Cleveland, OH

Call for Papers
Abstract Deadline March 31, 2019
Manuscript Deadline May 20, 2019

NCSL INTERNATIONAL
Serving the World of Measurement

Course Catalog Number: Tfm-2
Course Track: Flow Measurements
Course Tropic: Uncertainty
Course Career Level: Beginner

Sunday, August 25 | 8:00 AM - 12:00 PM | 1/2-Day AM (4 Hours)

Course Title: Uncertainty Analysis: Coriolis Mass Flow Meters

Instructor: Richard Fertell, Proteus Industries, Inc.

Abstract: Measurement uncertainty calculations for Coriolis mass flow meters based upon assessment on a weigh standard versus manufacturer's equations.

Learning Objectives:

1. Concepts and difference of volumetric and mass flow rate.
2. Concept and need of special density calibration.
3. Concepts and need of special volumetric or mass flow rate calibrations.
4. Concepts and calculation of all error sources for Coriolis mass flow meters.

Instructor Curriculum Vitae (CV): Richard Fertell has presented papers on Liquid Flow Rate at ISFFM, NCSLI, IMEKO, FLOMEKO and CFM as well as been published in magazines: Flow Control, Cal Lab, IEEE Explorer. Conducted workshop tutorials on Flow at the Measurement Science Conference and published many technical videos on YouTube and Vimeo. Like many in the Measurement Field, Richard worked in electronics and calibration while in the military. His career progression is from electronics technician to engineer to manager, professor and scientist.