

- ✓ Are you experiencing stress in your structural design?
- ✓ Do you dread the application of weight to your specimen?
- ✓ Have you ever witnessed a residual stress failure?

The Micro-Measurements Technical Experts are coming to your area!
Below is the full list of topics available for a customized 90-minute on-site StrainTalks session.

Held at your facility, the seminar will focus on five topics of your choice from the list below:

- Understanding the strain sensor—theoretical instructions (how they work)
- The structural design of a strain sensor (different layers and materials)
- Strain sensor selection for: metals, composites, aggregate materials including concrete and asphalt, plastics, wood, cryogenic and high temperature applications
- Adhesive selection
- Mechanical issues/strain sensor testing rigs (sensor factor determination, creep, fatigue)
- Life expectancy (long-term stability, fatigue behavior, maximum strain, strain sensor failure)
- Strain sensor performance data (transverse sensitivity, strain sensitivity, upper frequency limits, maximum strain)
- Influential environmental conditions: extreme temperatures including cryogenic and high temperature applications, outdoor, elevated humidity, water exposure, high vacuum and space flight
- Wheatstone bridge considerations
- Solder and leadwire selection
- Temperature compensation—STC explained
- Use of a dummy sensor for thermal compensation
- Weldable sensor selection and installation
- Instrument selection considerations and sampling rate
- Techniques for checking sensor installation quality
- Determination of unknown TCE using strain sensors
- Printed circuit board testing
- PhotoStress®
- Two versus three leadwires
- Excitation—grid self-heating, maximizing the signal, maximizing the signal-to-noise ratio
- Shunt calibration—proper scaling of the instrument independent of excitation, gain settings, or leadwire resistance
- Averaging—does the sensor size matter?
- Which is the right resistance for my application?
- Complementary sensors: displacement sensors and LVDTs, thermocouples and bondable temperature sensors (RDTs), load cells, torque and pressure transducers
- Is my measurement static or dynamic? Instrument selection and sampling rate
- Residual stress analysis by hole drilling method
- Determination of maximum and minimum principal strain magnitude and direction using rosette strain sensors
- Using strain sensors in experimental stress analysis to validate FEA

Also discussed: About Micro-Measurements • Strain in Action™ (Testimonials) • StrainBond™ • StrainBlog™

RSVP with your selected topics and estimated participants to
Jeff Wilkins at sales@a-pcorp.com.



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