

## Day 1 Introduction to Indentation Techniques

08:00 Registration and Breakfast

08:30 Introduction to the Workshop, Presentation of Learning Objectives and Logistics

08:45 Instrumented Indentation Tutorial 1 - From Contact Mechanics to Modern Indentation: A Review of Guiding Principles

- Classical Hertz Contact Problem and Spherical Indentation
- Generalization to Non-Spherical Indentation on Elasto-Plastic Solids

10:00 Instrumented Indentation Practice 1 - Basic Theory at Work via Live Demonstration and Problem Solving

12:30 Lunch Break, Instrumentation Show, and Open Forum

13:30 Instrumented Indentation Tutorial 2 - From Contact Mechanics to Modern Indentation: A Review of Guiding Principles

- Indentation on Visco-Elasto-Plastic Solids
- Dynamic Indentation

14:45 Instrumented Indentation Practice 2 - Basic Theory at Work via Live Demonstration and Problem

- Elasto-Plastic Indentation Technique - Creep Measurements (Storage Modulus)
- Bio-Indentation of Soft-Matter - On-Line Demonstration

16:00 From Principles to Measurement: Instrumental Design, Calibration, Data Correction Methods

17:30 Networking, Instrumentation Show, and Meet Our Engineers

18:00 End of Day One

## Day 2 Applications for Indentation, Part 1

08:00 Registration and Breakfast

08:30 Introduction to the Day 2, Presentation of Learning Objectives and Logistics

08:45 Indentation for Metals Alloys and Thin Films

10:20 Indentation for Multi-Scale Composites, Geological and Cementitious Materials, Part 1

11:30 Indentation for Multi-Scale Composites, Geological and Cementitious Materials, Part 2

12:30 Lunch Break, Instrumentation Show, and Open Forum

13:30 Indentation for Bio-Materials and Soft-Tissue

14:30 Indentation for Adhesion Force Measurement

15:40 Extended Use of Indentation in Micro-Bending

17:30 Networking, Instrumentation Show, and Meet Our Engineers

18:00 End of Day Two

## Day 3 Applications for Indentation, Part 2

08:00 Registration and Breakfast

08:30 Introduction to the Day 3, Presentation of Learning Objectives and Logistics

08:45 Statistical Tools in Indentation Testing on Composite Materials

10:45 Miscellaneous Applications of Indentation to Cement Based Materials Mechanics

12:30 Lunch Break, Instrumentation Show, and Open Forum

13:30 Bring Your Own Samples and/or Data - Lab Time with the Experts

16:00 End of Day Three