Webinar Abstract:

In the high-stakes world of semiconductor manufacturing, even a microscopic defect can significantly impact yield and long-term reliability. Identifying whether a failure is a physical structural issue or a hidden chemical contaminant is a critical challenge across the production workflow.

Join us in this Digital Classrooms session where we showcase a comprehensive approach to solving the "defect puzzle." We'll demonstrate how integrating advanced analytical technologies— from **non-destructive X-ray visualization** with the inspeXio 7000 to **high-resolution surface and material characterization** with the AXIS Supra+ —provides the clarity needed to keep production on track.

We will also explore the source of defect formation through **trace-level elemental analysis** using the ICPMS-2050, alongside versatile **X-ray imaging platforms** like the SMX-1020 and SMX-6010.

Discover how you can effectively pinpoint root causes faster, giving you the insights to strengthen process control and maximize your semiconductor yield. **Register Now!**

Learning Objectives:

1. Understand key differences between 2D X-Ray inspection and 3D computed tomography in relation to production and failure analysis

2. Determine the suitable 3D computed tomography analysis for electrical and electronics components, semiconductor packages and multi-layer mounted circuit boards

3. By using the AXIS Supra+ XPS system to examine surface composition and chemical states at defect sites, defects can be linked more quickly to contamination, oxidation, interfacial reactions, or other failure mechanisms

4. Use ICP-MS (ICPMS-2050) to detect ultra-trace metallic contaminants in semiconductor-grade chemicals that may lead to defect formation and reliability issues