An Introduction to Ultrasonic Phased Array Applications

The following outlines the material to be discussed:

- ***Wave Physics of Phased Array Ultrasonics***
- ***Phased Array Transducers***
  - Probe Feature and Design
  - Beam and Wave Forming
  - Electronics and Computer Control
- ***Calibration of a Phased Array System (OmniScan)***
- ***Phased Array Scanning Applications***
  - Beam Focusing
  - Beam Steering
  - Manual Phased Array Scans
  - Electronic scanning
  - Sector Scanning
  - Combined scanning using the OmniScan Grouping Feature
  - Phased Array Probe Selection
- ***Phased Array Data Presentation***
  - A, B C, S Scans
  - Sectorial Scans
  - Linear Scans
  - File Management
- ***Limitations (steering/array lobes)***
- ***DAC and TCG Calibrations***
- ***Encoder Calibrations and Encoded Examinations***
- ***Overview of Codes and Standards for Phased Array***
- ***Hands-on Phased Array Calibration and Examination Laboratory Exercises***

This program is ideally suited for UT level II, III and NDE Management and supervisory personnel. Theory and Wave Physics of Phased Arrays are explained with specific laboratory exercises.