

PROPOSED AE WORKSHOP FOR CONDITION MONITORING

INTRODUCTION

WELCOME & Introduction – Workshop Program & Overview

FUNDAMENTAL OF AE

- AE definitions & terminology
- AE and other NDT techniques
- Sources of AE in Materials
- Signal measurements basics
- The dBae scale
- Basic data display & their significance
- Application strategy
- Repeated Loading, Felicity & Kaiser Effects
- Wave propagation and attenuation
- Source location techniques
- AE test procedures
- AE sensors & AE pre-amplifiers
- AE instrumentation
- AE from Metal: Corrosion, SCC, pitting corrosion, plastic deformation, crack growth etc.

HAND ON PROJECT – PRACTICAL TRAINING

- Sensors Mounting & Calibration
- System/Hardware Set Up
- System/S/W Set Up
- Attenuation Measurements
- Noise recognition & Signatures
- Linear Location
- Demos

DATA ANALYSIS AND POST PROCESSING

- Waveforms And Digital Signal Processing
- Features Extraction & Feature Vectors
- Multi-Dimensional Sorting
- Manual Classification
- Noise assessment
- Noise identification and Noise removal
- Filtering Results
- Class Data & Class Ids
- Noesis Documents

CONDITION MONITORING APPLICATIONS

- AE Standards
- Rotating and Machinery
- Reciprocating Machinery
- Leak Detection
- Partial discharge & Gassing of transformers

