The Vibration Fault Periodic Table Interactive Training concept was designed to introduce a logical framework and sorting mechanism for the complicated vibration analysis world. This is not a replacement for traditional ASNT and ISO vibration training. Rather the table itself and the associated online training is meant to enhance the student’s exposure to seminar concepts in a self-paced and self-directed manner.

The Table format alone provides a framework for the beginner or advanced individual. The logical sorting mechanism allows virtually anyone to follow along and understand “how” a vibration analyst thinks. There are thirty-five faults defined on the Table. The initial sorting mechanism is based on the dominant frequency response in the machine. The initial sorting should eliminate up to 30-50% of the potential problems. A second sorting mechanism is based on the dominant directional response in the machine (Radial, Axial, Radial and/or Axial). This should eliminate up to 50% of the remaining faults. Finally, a recommended diagnostic analysis is found within the fault icons remaining on the table. If used properly, even a beginning analyst should quickly zero-in on the root cause of the vibration issue.

The completely interactive On-line Learning Management System (LMS) training was designed to enhance training concepts that are all too often forgotten in the weeks and months following a
formal training class. The LMS training can be used as a refresher or as a stand-alone problem solving tool to help solve a current plant vibration problem.

The On-line training was designed as a self-paced and self-directed format for understanding and classifying fundamental machinery vibration faults in as much detail as desired without having to follow a direct path to get there. A hyperlink network maps each of the 35 fundamental vibration faults along 13 attribute set sub-categories. The material is enhanced with actual machinery data, numerous real-life case histories and animation examples. The full package includes over 900 pages of information with several thousand convenient hyperlinks.

This training method will appeal to those who are inclined to be visual learners as well as to those who are auditory learners. The material can be read and reread as many times as desired, and also includes numerous video and audio files that help reinforce the concepts. The training includes conservatively 75+ hours of content and can be used to fulfill ASNT and ISO required “experience” hours for formal certification.