

ABSTRACT

Eddy Current Testing (ECT) is a Non-Destructive Testing methods that are based on the interaction between the source of the magnetic field with the object being tested. ECT is able to detect defects, cracks, holes in a wide variety of objects that are conductive.

To facilitate testing of ECT, required scanning system that automatically induce a magnetic field, read the voltage data at each point of the test, and the movement of the automatic coil. The voltage data load distribution voltage value read from the whole point of the test. Objects contained on anomalies, voltage data is read will be different from a normal object. The distribution of that data can detect any anomalies in the material. Voltage data obtained is formed matrix and visualized so it will easily find out the location of the anomaly on the object. With this system, accuracy and efficiency of time and energy would be better. Scanning system was designed to have an accuracy > 94% by inducing optimal use frequency of 200 kHz. This system can detect anomaly with in 10 mm of size.

Keynote: *Eddy Current Testing, the movement of the coil, the induction of the magnetic field data acquisition, data mapping.*