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LabVIEW-Based data acquisition system for eddy current testing probe

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Abstract : This paper presents the implementation aspects of a LabVIEW-Based data acquisition system intended for an eddy current testing (ECT) probe. The goal of this work is to design and develop a data acquisition system that can be used for automated non destructive testing tests and measurements applications. The system deals with a pancake type coil, placed above a flat copper plate with a crack. The probe coil moves along the crack length direction and is connected to a National Instruments (NI) data acquisition board. The system developed under this work has the capability to acquire the impedance of the coil. The experimental results are compared with LCR-meter measurements

Keywords : Data acquisition, eddy current testing, LabVIEW, sensor, impedance