K. S. S. Kumar, Microcontroller based quasi-balanced digital LCR meter, M. Tech. Thesis, Department of Energy Systems Engineering, Indian Institute of Technology Bombay, 1998.

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Abstract – Measurement of components of an impedance of essential in many areas of electrical and electronics systems. Different measurement techniques are described. A micro-controller based quasi-balanced bridge for the measurement of parameters of an inductor or a capacitor is described which has an accuracy of 0.5%. To make it automatic balance, it requires a PSD, window comparator and a multiplexer. The Micro-controller controls the operation of MUX and input to the MADC.

Keywords: Quasi-Balance condition, Phase sensitive detector, Window Comparator and, Multiplexer.