



LabVIEW Based Characterization and Optimization of Thermal Sensors

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***Abstract-** Reliable operation of a transducer carries a great importance while choosing it for a particular application. This project report characterizes thermistor and RTD in detail. Thermal transducers are widely used transducers in most of the industrial and scientific instrumentation. These transducers of different types and parameters are commercially available in the market by different manufacturers. The manufacturers need to test large volume for specifying the parameters of these devices. Moreover, this test would serve as feedback for quality assurance and production schedule.*

Moreover, any upgradation in processing technology proposed by the research and development activities has to be evaluated before launching it into the production. On the other hand, the users of such transducers would need to test the critical parameters before they use it in a specific application.

The LabVIEW software, its example and LabVIEW based characterization setup reported here offer a reliable high-speed solution with flexibility in the form of software adjustment for performing different tests suitable to both categories such as manufacturers and the users.

Index terms: LabVIEW, Transducer, RTD, Thermistor, AD590, Sampling and Optimization