SELF-CALIBRATION OF INTELLIGENT MEASUREMENTS USING THE REDUNDANT METHOD

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ABSTRACT

In the work under study, the main functions of intelligent measuring instruments are considered. To increase the calibration and verification interval, it is proposed to implement the self-calibration function in the sensor. The methods of calibration of measuring instruments are analyzed. A method for self-calibration of intelligent measuring instruments using the redundant method has been developed. To correct external and internal influences, two primary transducers of the same type were used for differential measurement. A significant advantage of the proposed method is that the sensor can independently introduce a correction to the measured signal, taking into account the calibration data.

KEYWORDS: *Measurement, Meter Calibration, Intelligent Measuring Instruments, Self-Calibration, Self-Testing, Microprocessor, TEDS, Temperature Corrections.*

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