

Microcontroller-Based Phase-Angle Measurement And Correction technique

Al-Ali, A.K. Abuelma'atti, M.T. Hussain, I.; King Fahd Univ. of Pet. Miner., Dhahran; **Industrial Automation and Control: Emerging Technologies, 1995., International IEEE/IAS conference; Publication Date: 22-27 May 1995; ISBN: 0-7803-2645-8**
King Fahd University of Petroleum & Minerals

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Summary

An intelligent system is presented, which monitors the phase angle continuously and in the event of the phase angle deviating beyond the allowable limits, a correction action is initialized to compensate for this difference by continuously changing a variable capacitor. Adjustment of the capacitance value is done automatically and the major advantage of the proposed system is its ability to continuously change the capacitance in a linear manner. Thus achieving high degree of accuracy in phase angle correction is feasible. The system has been implemented on an 8-bit microcontroller. Experimental results obtained show that the phase angle can be linearly varied over a wide range at different frequencies of the input signal

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