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ON-LINE IDENTIFICATION OF LOW-FREQUENCY MODES OF ELECTROMECHANICAL OSCILLATIONS IN POWER SYSTEMS

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Abstract

The article presents comparative identification results of low-frequency components of the signals in the cases of using their both effective and instantaneous values. It is shown that using of instantaneous values of power system operational condition parameters measured by phasor measurement units will increase a detection reliability of low-frequency modes of electromechanical oscillations, however, such use in real time will require a high processor speed. Therefore, for reliable detection of low-frequency modes it is more expedient to increase the observation window’s width and to use the effective values of the power system operational

condition parameters. References 10, figures 6, tables 3.

Key words: power system, low-frequency modes, electromechanical oscillations, data sampling, instantaneous values.

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