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**Method of microprocessor-based automatic voltage regulators mathematical modeling.**

Paper describes operation aspects of microprocessor-based automatic voltage regulators (AVRs) and power system stabilizers (PSS). Mathematical modeling method of microprocessor-based AVRs and PSSs for oscillatory stability studies is proposed. With proposed method mathematical models can be obtained both with use of AVRs and PSSs frequency response characteristics and without it. Results of method application for AVR and PSS industrial unit are shown.

*Key words: mathematical model, automatic voltage regulator, approximation, oscillatory stability.*

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