



Design of Automatic Voltage Regulator and Frequency Governor for Synchronous Generator

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Abstract

This paper presents the development of an Automatic Voltage Regulator (AVR) and a Frequency Governor for synchronous generator for laboratory purposes. The AVR operates as a voltage stabilizer and controller because the output voltage is controlled and regulated through a digital system. The Frequency Governor controls the frequency of the output voltage by means of controlling rotating frequency of the generator. Insulated gate bi-polar transistor switches are used to control the excitation voltage of the generator and the armature voltage of the DC motor to control the outputs.