

Project Title

Designing and manufacturing, installation and commissioning of hydroelectric governors



Researcher

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Abstract

Governor known as the heart of a power station is the most sensitive part of the control system and is distinguished as a strategic component in power generation industry. So far this system has been purchased from foreign companies for existing power stations in Iran. Most of the installed governors have very high price and use special parts made by the governor manufacturers that are not purchasable in market, making their operation and maintenance a challenge. In Most cases the equipment sold to Iran have not been the latest technology, making the system out dated in a short period of time and causing more problems in spare part and service acquisition.

The new generations of Governors are Hydro Electronic systems having an accurate servo-hydraulic system under the command of a plc. based digital control system controlling speed and power, and making safe decisions in critical events. This was the basis for the development of our governors.

The preliminary studies started in 2007 by studying the documents, visiting sites, and tailoring numerous design meetings. After 8 years, 3 units of the first governors were installed in Azad 10MW power station in Kurdistan with a successful record of operation since their installation. Three unit in Darian 210 MW hydropower station in Kermanshah province and 3 units in 155 MW Sardasht power stations in West Azerbaijan province were the successors. All governors pass all standard test required by the power generation industry and standard institutions. Therefore the technology is now fully matured and is ready for entering the world market.

