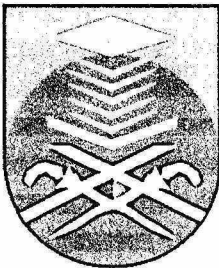


**OPTIMAL POWER FLOW (OPF) FOR UNIFIED POWER
FLOW CONTROLLER (UPFC) IN FLEXIBLE AC
TRANSMISSION SYSTEM (FACTS) USING EVOLUTIONARY
PROGRAMMING**

This project report is presented in partial fulfillment for the award of the
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ABSTRACT

This project report presents an application of Evolutionary Programming (EP) for solving Optimal Power Flow (OPF) problem by means of series compensation scheme of Flexible AC Transmission Systems (FACTS) in a power system. The main idea is to identify the series capacitors value so that the total losses in the system are minimized and the voltage profile is maintained at the acceptable level. The proposed method has been tested on the IEEE 30 bus Reliability Test systems. The results shows that the proposed technique has able to identify the suitable values of the series capacitor that minimize the total losses in the system while maintaining the voltage level at the suitable value.

Keyword:

Evolutionary Programming (EP), Optimal Power flow (OPF), Flexible AC Transmission System (FACTS), Unified Power Flow Controller (UPFC)

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