

**ANALYSIS OF THE EFFECT OF FLEXIBLE ALTERNATING CURRENT TRANSMISSION SYSTEM (FACTS) ON THE NIGERIAN 330KV TRANSMISSION NETWORK USING ERACS AND MATLAB SIMULLINK**

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**ABSTRACT**

The increasing demand for electricity in Nigeria has consequently led to the construction of new power stations in different location within the country. This increment results in transmission systems being pushed closer to their stability and thermal limit. This research takes a look at unified power flow controller (UPFC) which is a flexible alternative current transmission system (FACTS) device as a cost effective alternative to upgrading electrical transmission system infrastructure than the traditional form of constructing new transmission line.

**Keywords:** FACTS, UPFC, Nigerian 330KV Transmission Network.