

Sl No	Particulars	
1	Name of the Candidate	Dr. Archana N.V.
2	Address of the parent institution	NIE institute of Technology, No.50(part), Next to BEML, Koorgalli village, Koorgalli, Mysore-570018
3	PhD Thesis Title	Adaptive Controller Strategies for FACTS Devices in Power System to Enhance Stability
4	Research guide Name	Dr. S.S.Parthasarathy
	Department and Designation	Professor, EEE
5	Date of Registration for PhD	24/07/2009
	University /Branch	University of Mysore, Electronics
6	Date of Award of PhD degree	8/04/2015
7	<p><u>Brief synopsis :</u></p> <p>Most, if not all of the World's electric power supply systems are widely interconnected, involving connections inside utilities own territories which extend to inter – utility interconnections and then to inter – regional &amp; international connections. This is done for economic reasons, to reduce the cost of electricity &amp; to improve reliability of power supply.</p> <p>In recent years, continuous and reliable electric energy supply is the objective of any power system operation. Over last decade FACTS devices have become popular and are very effective solution for many power system transmission problems. FACTS controllers can be used for steady state voltage regulation and control, steady state control of power flow on a transmission line stability enhancement, along with this it also reduces the problem of sub synchronous resonance. It also improves HV DC link performance.</p> <p>Parameter variations in the plant of a control system can have severe impact on performance &amp; stability. For this reason, control system designers have desired a control algorithm which somehow automatically redesigns itself as the plant changes. This is an adaptive controller.</p> <p>FACTS along with an effective adaptive controller can be used to improve power system stability. The outcome of this research work is the comparing different location techniques like location of FACTS devices using loss reduction method and optimal method. Application of self tuning TCSC and comparison of performance of two FACTS devices such as SSSC and TCSC. The research also dealt with the application of MRAS type of adaptive controllers for stability studies.</p>	

