IJARSCT
ISSN (Online) 2581-9429
International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)
International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal
Impact Factor: 7.53
Volume 4, Issue 2, August 2024

STATCOM Based on Modular Multilevel Inverter Coupled with Smart Detection Technique-A Survey

Trishna Rajendra Gothe[1] and Prof. W. A Gavhane[2]
PG Scholar, Department of Electrical Power System[1]
Assistant Professor, Department of Electrical Power System[2]
Government College of Engineering, Aurangabad, Maharashtra, India

Abstract: *A static synchronous compensator (STATCOM) is reviewed along with Multilevel inverter in this study, which uses another secluded design with standard three-stage voltage source inverters to staggered activity. The inverters are linked to a transformer with three free DC joins and an open-end winding plan. The inverters in this development will be connected in a fountain design. Besides multi-facet working, the framework is recognized by low important impeding voltages for switch evaluations, as the proposed STATCOM might apply twofold the DC capacitor voltage to the transformer windings. The proposed geography's control framework advancement is likewise given. A few demonstrating and reasonable tests will be performed to assess the activity of the recommended geography and the presentation of the laid out control framework. Voltage regulation and maximum power transmission can be achieved via reactive power compensation in a power system. The reason for this audit article is to zero in on different elements of STATCOM, for example, various arrangements, regulation methods, the idea of new decreased switch count geographies, applications incorporating connection point with environmentally friendly power, engine drives, and Realities regulator.*

Keywords: STATCOM; Inverter; Multilevel; detection; smart