

VOLTAGE SAG MITIGATION IN ELECTRIC ARC FURNACE USING FUZZY CONTROLLER BASED D-STATCOM

RAJKUMAR JHAPTE¹ & KALPA KRISHNAN²

¹Research Scholar, Shri Shankracharya Collage of Engineering & Technology, Chattisgarh, India

²Senior.Assistant Professor, Shri Shankracharya Collage of Engineering & Technology, Chattisgarh, India

ABSTRACT

Power quality has always been an issue that is continuously increasing its importance in modern industrial and commercial applications. Voltage disturbances; for example the voltage sag, swell, noise etc are the common power quality problems that appears due to increased use of a large numbers of sophisticated and sensitive electronic equipment in industrial systems.

To overcome this problem, custom power devices are used. One of the most common device used to improve the quality of supply is the D-STATCOM which is the most efficient and effective modern custom power device used in power distribution networks. It is connected in parallel with the power electronic based device so that they can quickly improve the voltage sag problem in the system and restore the load voltage to the pre-fault value. The primary advantage of the D-STATCOM is keeping the users always on-line with high quality constant voltage maintaining the continuity of production. Such a system is simulated using MATLAB/ SIMULINK

KEYWORDS: Fuzzy Controller, Voltage