A short review of different optimal H∞ robust FACTS controller designs

ABSTRACT

A review of designing the Optimize Robust FACTS Controller to provide better dynamic performance in power system is presented. The design is carried out applying robustness criteria for stability and performance. Variations of system operation conditions are represented by uncertainty model. Besides, Linear Fractional Transformation (LFT) form together with model reduction techniques are used to design a low order controller which provides fast and stable response under all system conditions. Furthermore, comparison different H∞ robust approaches specify advantages and disadvantages of every method. It is shown that one method has more flexibility and convenience.