Abstract

This paper presents about a fuzzy logic controller for three phase distributed generation system. An integrator to be implemented in a stationary reference frame called as the Reduced Order Generalized Integrator. The proposed ROGI based Fuzzy Controller is compared with the traditional ROGI based PI Controller. The currents injected to the grid are properly synchronized with the grid voltage. The proposed Controller minimizes the overshoot and under shoot response than the PI Controller. It ensures the stable output. The Controller has three injection strategies such as the balanced current injection, constant instantaneous active power injection and Maximum Instantaneous active power injection. This controller can perform
Reduced Order Generalized Integrator based Current controller for Distributed Power Systems

successfully even during faulty grid conditions

References

- M. Cacciato, A. Consoli, R. Attanasio, and F. Gennaro, 
- J. Carrasco, L. Franquelo, J. Bialasiewicz, E. Galvan, R. Guisado, M. Prats, J. Leon, and N. Moreno-Alfonso, 
- T. Zhou and B. Francois, 
- H. Zhang and L. Tolbert, 
- Q. Zeng and L. Chang, 
- A. Timbus, M. Liserre, R. Teodorescu, P. Rodriguez, and F. Blaabjerg, 
- Y. Sato, T. Ishizuka, K. Nezu, and T. Kataoka, 
- D. Zmood, D. Holmes, and G. Bode, 
- D. Zmood and D. Holmes, 
- P. Rodriguez, A. Luna, I. Candela, R. Mujal, R. Teodorescu, and F. Blaabjerg, 
- P. Rodriguez, A. Timbus, R. Teodorescu, M. Liserre, and F. Blaabjerg, 
- A. Yazdani and R. Iravani, 
- H. -S. Song and K. Nam, 

Index Terms
Computer Science
Applied Sciences

Keywords
Reduced Order Generalized Integrator (rogi) Distributed Phase Generation System
(DPGS) Current Controller Fuzzy Logic
Controller (FLC).