

# Certificate

This is to certify that the thesis entitled MULTIOBJECTIVE OPTIMIZATION OF 2DOF CONTROLLER USING EVOLUTIONARY AND SWARM INTELLIGENCE submitted by *Haresh A. Suthar* in fulfillment of the degree of DOCTOR OF PHILOSOPHY in Electrical Engineering Department, Faculty of Technology & Engineering, The M. S. University of Baroda, Vadodara is a bona fide record of investigations carried out by him in the Department of Electrical Engineering, Faculty of Technology & Engineering, The M. S. University of Baroda, Vadodara under my guidance and supervision. In my opinion the standards fulfilling the requirements of the Ph.D. Degree as prescribed in the regulations of the University has been attained.

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