सत्यं शिवं सुन्दरम्

Ph.D. Thesis

MATHEMATICAL ANALYSIS
OF
HOPFIELD NETWORKS
AND
NEURAL NETWORKS IMPLEMENTATION
OF
STEERING CONTROLS FOR SEMILINEAR SYSTEMS

By

Purnima Pandit

Supervisor

Prof. R. K. George

Department of Applied Mathematics,
Faculty of Technology and Engineering,
Maharaja Sayajirao University of Baroda

Vadodara

AUGUST 2007

Thesis

submitted for
the award of the degree of

DOCTOR OF PHILOSOPHY

In Applied Mathematics

titled

MATHEMATICAL ANALYSIS
OF
HOPFIELD NETWORKS
AND
NEURAL NETWORKS IMPLEMENTATION
OF
STEERING CONTROLS
FOR
SEMILINEAR SYSTEMS.

by

Purnima Pandit

Guided by

Prof. R. K. George

TO,

THE MAHARAJA SAYAJIRAO UNIVERSITY OF BARODA

AUGUST 2007

I