

**DECISION SUPPORT MODELS FOR MANAGING  
CHLORINE DISINFECTION IN DRINKING WATER  
DISTRIBUTION SYSTEM**

**THESIS  
SUBMITTED FOR FULFILLMENT OF  
REQUIREMENTS FOR THE DEGREE OF**

**DOCTOR OF PHILOSOPHY  
IN  
CIVIL ENGINEERING**

**By**

**ROOPALI VIKAS GOYAL**

**SUPERVISOR**

**Prof. (Dr.) H.M. PATEL**



**DEPARTMENT OF CIVIL ENGINEERING  
FACULTY OF TECHNOLOGY AND ENGINEERING  
THE MAHARAJA SAYAJIRAO UNIVERSITY OF BARODA  
VADODARA**

**MAY 2016**