



A Thesis entitled

**A MATHEMATICAL APPROACH TO SOME ASPECTS OF  
FERROFLUID LUBRICATION**

Submitted to

**The Maharaja Sayajirao University of Baroda**

For the partial fulfillment of the  
Degree of

**Doctor of Philosophy**

in

**Applied Mathematics**

By

**DARSHANA A. PATEL**

**(Reg. No.278)**

under the supervision of

**DR. RAJESH C. SHAH**

Associate Professor

**(July, 2017)**