

**STUDY AND DEVELOPMENT OF MODELS  
FOR SUPPLY CHAIN PERFORMANCE MEASUREMENT  
IN SELECT INDUSTRIES**

**A THESIS**

**Submitted to**

**THE MAHARAJA SAYAJIRAO UNIVERSITY OF BARODA, VADODARA**

**in fulfillment of the requirements for the award of degree**

**of**

**DOCTOR OF PHILOSOPHY**

**In**

**MECHANICAL ENGINEERING**

**By**

**GEORGY POWATHILATH KURIEN**

**Research Guide**

**DR. M. N. QURESHI**



**DEPARTMENT OF MECHANICAL ENGINEERING  
FACULTY OF TECHNOLOGY AND ENGINEERING  
THE MAHARAJA SAYAJIRAO UNIVERSITY OF BARODA  
VADODARA 390 002**

**JUNE 2017**