

**ELECTROCHEMICAL STUDIES OF  
SPINEL CATHODE MATERIAL AND  
NANOCOMPOSITE POLYMER ELECTROLYTE**

**THESIS**

SUBMITTED TO



**THE MAHARAJA SAYAJIRAO UNIVERSITY  
OF BARODA**

**FOR THE DEGREE OF  
DOCTOR OF PHILOSOPHY  
IN  
PHYSICS**

**SUBMITTED BY  
PRAJAKTA NIRANJAN JOGE**

**UNDER THE GUIDANCE OF  
PROF. DINESH K. KANCHAN**

**PHYSICS DEPARTMENT  
FACULTY OF SCIENCE  
THE M. S. UNIVERSITY OF BARODA  
VADODARA-390002  
GUJARAT  
INDIA  
FEBRUARY-2018**