

# **STUDY OF RATIONAL FOURIER SERIES**

A THESIS SUBMITTED TO  
**THE MAHARAJA SAYAJIRAO UNIVERSITY OF BARODA**



FOR THE AWARD OF THE DEGREE OF  
**DOCTOR OF PHILOSOPHY**  
IN  
**MATHEMATICS**

BY

**HARDEEPPBHAI J. KHACHAR**

DEPARTMENT OF MATHEMATICS  
GOVERNMENT SCIENCE COLLEGE, BHILAD - 396105

UNDER THE SUPERVISION OF

**PROF. RAJENDRA G. VYAS**

DEPARTMENT OF MATHEMATICS  
FACULTY OF SCIENCE  
THE MAHARAJA SAYAJIRAO UNIVERSITY OF BARODA  
VADODARA - 390002

FEBRUARY, 2024