

**A THEORETICAL INVESTIGATION OF  
NONCLASSICAL EFFECTS IN OPTICAL AND  
OPTOMECHANICAL SYSTEMS AND THEIR  
APPLICATIONS**

*Thesis submitted to*

***VIDYASAGAR UNIVERSITY, MIDNAPORE – 721102***

*FOR THE AWARD OF DEGREE OF*

**DOCTOR OF PHILOSOPHY  
(SCIENCE)**

*By*

***KOUSIK MUKHERJEE***

DEPARTMENT OF PHYSICS  
VIDYASAGAR UNIVERSITY  
MIDNAPORE – 721102  
WEST BENGAL

INDIA

2019