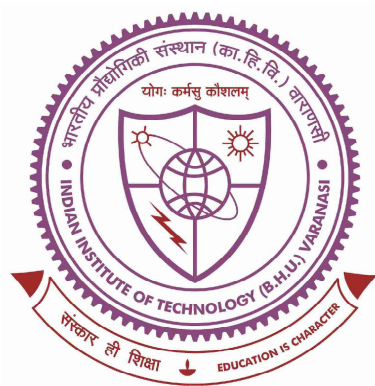


**Study of evolution of energetically favored collectivity and hindered isomeric states in the  $A \approx 90$  region**



**Thesis submitted in partial fulfillment  
for the Award of  
DOCTOR OF PHILOSOPHY  
in  
PHYSICS**

*by*  
**NIDHI GOEL**

*Under the supervision of*  
**Dr. Somnath Nag**

**DEPARTMENT OF PHYSICS  
INDIAN INSTITUTE OF TECHNOLOGY  
BANARAS HINDU UNIVERSITY  
VARANASI - 221005**

**ROLL NUMBER**  
18171505

**YEAR OF SUBMISSION**  
2024