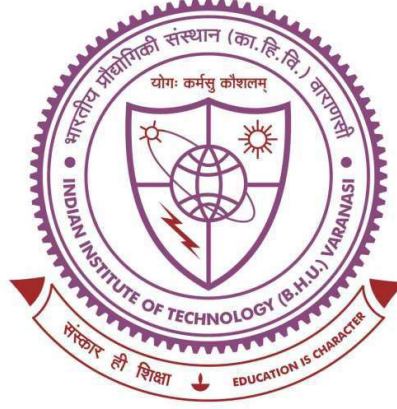


***Design and analysis of some surface plasmon  
resonance based photonic crystal fiber refractive  
index sensors***



**Thesis submitted in partial fulfilment for the  
Award of Degree**

***Doctor of Philosophy***

***in***

***Physics***

**by**

***Umang Ramani***

**DEPARTMENT OF PHYSICS  
INDIAN INSTITUTE OF TECHNOLOGY  
(BANARAS HINDU UNIVERSITY)  
VARANASI – 221005**

**Roll Number: 17171025**

**2023**