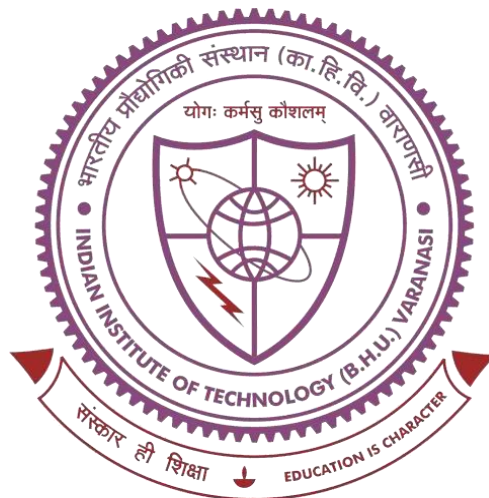


# Lanthanide-doped optical materials for temperature sensing and latent fingerprint detection



Thesis submitted in partial  
fulfilment For the Award of Degree

**DOCTOR OF PHILOSOPHY**

In

Physics

By

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