

Understanding the solar activity and exploring the scope of space weather prediction



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

by
AKASH BISWAS

DEPARTMENT OF PHYSICS
**INDIAN INSTITUTE OF TECHNOLOGY
(BANARAS HINDU UNIVERSITY),
VARANASI - 221 005**

ROLL NUMBER
20171506

YEAR OF SUBMISSION
2023