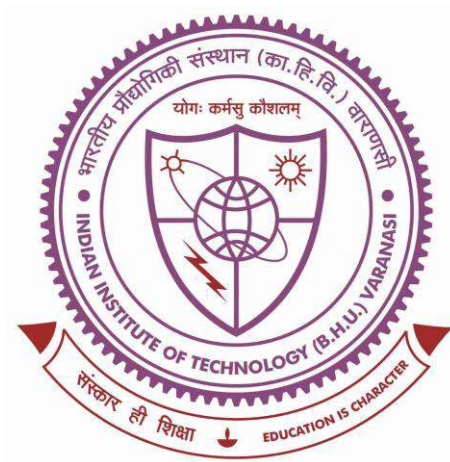


**Studies on preparation, characterization and *in vitro*
bioactivity assessment of bioactive glasses doped with
 Al_2O_3 , CuO and $(\text{TiO}_2+\text{ZrO}_2)$**



THESIS SUBMITTED FOR THE AWARD OF THE DEGREE

OF

**Doctor of Philosophy
in
Ceramic Engineering**

**Supervisor
Prof. S. P. Singh**

**Submitted by
Himanshu Tripathi
*M.Tech***

**DEPARTMENT OF CERAMIC ENGINEERING
INDIAN INSTITUTE OF TECHNOLOGY
BANARAS HINDU UNIVERSITY
VARANASI-221 005, INDIA**