

# **Hydrometallurgical recovery of tantalum and other valuable metals from waste tantalum capacitors**



**Thesis submitted in partial fulfillment  
for the Award of degree**

***Doctor of Philosophy***

**By**

***Munmun Agrawal***

**DEPARTMENT OF METALLURGICAL ENGINEERING  
INDIAN INSTITUTE OF TECHNOLOGY  
(BANARAS HINDU UNIVERSITY)  
VARANASI – 221005  
INDIA**

**18141004**

**2023**