

## **CERTIFICATE**

It is certified that the work contained in this thesis titled “ SAFETY ANALYSIS OF COMPUTER BASED SYSTEMS USING STOCHASTIC MODELING” by “VINAY KUMAR” has been carried out under my supervision and that it has not been submitted elsewhere for a degree.

It is further certified that the student has fulfilled all the requirements of Comprehensive, Candidacy and SOTA for the award of Ph.D. Degree.

Signature of Supervisor

**Prof. Anil Kumar Tripathi**

**Department of Computer Science  
and Engineering**

**Indian Institute of Technology  
(Banaras Hindu University)  
Varanasi-221 005**

Signature of External Supervisor

**Dr. Lalit Kumar Singh**

**Research and Development  
Electronics System**

**NPCIL  
Department of Atomic Energy  
Mumbai-400 094**

## COPYRIGHT TRANSFER CERTIFICATE

---

Title of the Thesis: SAFETY ANALYSIS OF COMPUTER BASED  
SYSTEMS USING STOCHASTIC MODELING

Name of the Student: VINAY KUMAR

### Copyright Transfer

The undersigned hereby assigns to the Indian Institute of Technology (Banaras Hindu University) Varanasi, all rights under copyright that may exist in and for the above thesis submitted for the award of the DOCTOR OF PHILOSOPHY.

*Date :*

(VINAY KUMAR)

*Place :*

Note: However, the author may reproduce or authorize others to reproduce material extracted verbatim from the thesis or derivative of the thesis for author's personal use provided that the source and the Institute's copyright notice are indicated.