

## PROFESSIONAL ETHICS AND DISASTER MANAGEMENT

**OBJECTIVES:** *To help the students*

- *To appreciate the importance and values and ethics in implementing the technology and ensure sustainable development, happiness and prosperity.*
- *To understand the co-existence with nature and to be aware of potential natural and manmade disasters.*

### **HUMAN VALUES:**

Effect of Technological Growth and Sustainable Development.

Profession and Human Values: Values crisis in contemporary society. Nature of values. Psychological Values, Societal Values and Aesthetic Values. Moral and Ethical values.

### **PROFESSIONAL ETHICS:**

1. **Professional and Professionalism**-Professional Accountability, Role of a professional, Ethic and image of profession.
2. **Engineering Profession and Ethics**-Technology and society, Ethical obligations of Engineering professionals, Roles of Engineers in industry, society, nation and the world.
3. **Professional Responsibilities**-Collegiality, Loyalty, Confidentiality, Conflict of Interest, Whistle Blowing.

### **DISASTER MANAGEMENT:**

Understanding Disasters and Hazards and related issues social and environmental. Risk and Vulnerability. Types of Disasters, their occurrence/ causes, impact and preventive measures:

Natural Disasters- Hydro-meteorological Based Disasters like Flood, Flash Flood, Cloud Burst, Drought, Cyclone, Forest Fires; Geological Based Disasters like Earthquake, Tsunami, Landslides, Volcanic Eruptions.

Man made Disasters: Chemical Industrial Hazards, Major Power Break Downs, Traffic Accidents, Fire Hazards, Nuclear Accidents.

Disaster profile of Indian continent. Case studies. Disaster Management Cycle and its components.

**In order to fulfill objectives of course,**

**(A) The institute shall be required to organize at least 3 expert lectures by eminent social workers/professional leaders.**

**(B) Each student shall compulsorily be required to:**

- I. **Visit a social institution/NGO for at least 7 days during the semester and submit a summary report.**
- II. **Perform a case study of a disaster that has occurred in last decade and submit a summary report.**

**References :**

1. Professional Ethics by R Subramanian, oxford publishers.
2. Engineering Ethics: Concepts and cases by Charles E. Harris, Jr., Michael S. Pritchard, Michael J. Rabins. CENGAGE Learning, Delhi
3. Controlling Technology: Ethics and Responsible Engineers by Stephen H Unger. John Willey and Sons.
4. Ethical Issues in Engineering, by Deborah Johnson. Prentice Hall.
5. Human Values in the engineering Profession, Moniograph by A N Tripathi. Published by IIM Calcutta.
6. Towards Basics of Natural Disaster Reduction by Prof. D.K. Sinha. Researchco Book Center, Delhi.
7. Understanding Earthquake Disasters by Amita Sinvhal. Tata McGraw Hill, New Delhi.
9. Selected Resources available on [www.nidmindia.nic.in](http://www.nidmindia.nic.in)