



CHALLENGES ON HANDLING MORAL ISSUES



- To what extent can a supervisor be an authoritative guide to engineer's conduct ?
- What does one do when there are differences of judgement ?
- Should one always follow the law to the letter?
- Is an engineer to do no more than what the specifications say, even if there are problems more serious than those initially anticipated?
- How far does an engineer's responsibility extend into the realm of influencing the social impact of the projects he or she participates in?



TYPES OF INQUIRIES



- The three types of inquiries, in solving ethical problems are:
- Normative inquiry
- +Conceptual inquiry
- +Factual or descriptive inquiry



NORMATIVE INQUIRY



- It seeks to identify and justify the morally-desirable norms or standards that should guide individuals and groups.
- It also has the goal of theoretical particular justifying moral judgments.



NORMATIVE INQUIRY



- **Example:**
 - How far does the obligation of engineers to protect public safety extend in any given situation?
 - **When, if ever, should engineers be expected to blow whistle on dangerous practices of their employers?**
 - Whose values ought to be primary in making judgment about acceptable risks in design for a public transport system or a nuclear plant? Is it of management, senior engineers, government, voters or all of them?
 - **When and why is the government justified in interfering with the organizations?**
 - What are the reasons on which the engineers show their obligations to their employees or clients or the public?



CONCEPTUAL INQUIRY



- **It is directed to clarify the meaning of concepts or ideas or principles that are expressed by words or by questions and statements.**
- **Examples:**
 - **What is meant by safety?**
 - **How is it related to risk?**
 - **What is a bribe?**
 - **What is a profession?**
- **When moral concepts are discussed, normative and conceptual issues are closely interconnected**



FACTUAL OR DESCRIPTIVE INQUIRY

- It is aimed to obtain facts needed for understanding and resolving value issues.
- The inquiry provide important information on business realities, engineering practice, and the effectiveness of professional societies in fostering moral conduct, the procedures used in risk assessment, and psychological profiles of engineers.



Factual or Descriptive Inquiry



- The facts provide not only the reasons for moral problems but also enable us to develop alternative ways of resolving moral problems.
- Example
 1. How were the benefits assessed?
 2. What are procedures followed in risk assessment?
 3. What are short-term and long-term effects of drinking water being polluted?
 4. Who conducted the tests on materials?