



# **SNS COLLEGE OF TECHNOLOGY**

**(An Autonomous Institution)**

**COIMBATORE-35**

**Accredited by NBA-AICTE and Accredited by NAAC – UGC with A++ Grade  
Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai**

**DEPARTMENT OF AUTOMOBILE ENGINEERING**

**COURSE NAME: 19GET201 Professional Ethics and Human Values**

**IV YEAR / VII SEMESTER**

**Unit 1 – Engineering Ethics**

**Topic 1: Moral Dilemmas and Moral Autonomy**





# What We'll Discuss

TOPIC OUTLINE

Case Study  
Moral Dilemma  
Moral Autonomy



# MORAL DILEMMA

- Dilemmas are certain kind of situations in which a difficult choice has to be made.
- Moral dilemmas have two or more foldings - moral obligations, duties, rights, goods or ideals come into disagreement with each other.
- One moral principle can have two or more conflicting applications for a particular given situation



# MORAL DILEMMA



There are three types of complexities.

## VAGUENESS:

- This complexity arises due to the fact that it is not clear to individuals as to which moral considerations or principles apply to their situation.

## CONFLICTING REASONS:

- Even when it is perfectly clear as to which moral principle is applicable to one's situation, there could develop a situation where in two or more clearly applicable moral principles come into conflict.

## DISAGREEMENT:

- Individuals and groups may disagree how to interpret, apply and balance moral reasons in particular situations.



# CASE STUDY

- Engineer A is employed by a software company and is involved in the design of specialized software in connection with the operations of facilities affecting the public health and safety (i.e., nuclear, air quality control, water quality control). As the part of the design of a particular software system, Engineer A conducts extensive testing and although the tests demonstrate that the software is safe to use under existing standards, Engineer A is aware of new draft standards that are about to be released. Testing is extremely costly and the company's clients are eager to begin to move forward. The company requests Engineer A's recommendation concerning the need for additional software testing.



# CASE STUDY



## Moral clarity:

- What is wrong? What is the core issue/ question?
- Will the software meet the new standards?
- Why are there new standards?
  - Experience shows new failure modes
  - New tests designed to test new failure modes
- Engineer's role in new standards?
  - Development of new standards
  - Following new standards



# CASE STUDY



## **Know the facts**

- It is critical software (health/safety of public)**
- New standards to test new failure modes (that you need to understand)**
- Testing is costly, company finances at stake**
- Need to protect existing jobs**
- Testing will delay release by > 6 months**
- Testing will hurt competitive advantage?**
- Utility rates will rise**





# CASE STUDY



## Consider options

- Option 1: Ignore the new tests, take risk to public safety/welfare, save time/money
- Option 2: Conduct the tests, risk jobs, hurt finances, become certain software will work, protect safety/welfare of the public
- Option 3: Creative middle of the road solution:  
Is there are limited version of full tests that could be conducted that would partially test, but save some

money/time?





# CASE STUDY



## **Make a reasonable decision**

- Pick Option 2 since safety/health/welfare of the public is paramount**
- If company says no, pick Option 3 and try to do a limited test for the failure mode (your competence in coming up with an economical test is critical here). In this option, all constraints considered, you try to protect the safety, health, and welfare of the public**



# MORAL AUTONOMY

- Autonomy means self-governing or self-determining i.e act independently.
- Moral autonomy is concerned with the independent attitude of a person related to ethical issues.
- It helps to improve the self-determination among the individuals.
- Autonomous individuals think for themselves and do not assume that customs are always right.
- They seek to reason and live by general principles.
- Their motivation is to do what is morally reasonable for its own sake, maintaining integrity, self-respect, and respect for others.



# SKILLS FOR IMPROVING MORAL AUTONOMY

- ability to distinguish and relate these moral problems
- possess(have) the skills of understanding, clarifying and assessing the arguments
- ability to suggest the solutions to moral issues, on the basis of facts.
- have the imaginative skill to view the problems from all view points
- tolerate while giving moral judgments and decisions
- adequate knowledge and understanding about the use of ethical language
- understand the importance of maintaining the moral honest



# THANK YOU