PROFESSIONAL ETHICS
IN
ENGINEERING
(GE2025)

The Goal

The course will develop a framework on which professional and ethical issues can be analyzed, and build up an awareness of various views of ethical issues as well as professionals ethical rights and responsibilities.

Course Outline

- Ethics and professionalism
  - Scope, responsibility, professionalism
- Moral reasoning and code of ethics Professionalism
  - Ethical dilemma, moral choices,
  - Code of Professional ethics
  - Moral framework
  - Stages of Moral Development
  - Utilitiarism, duty ethics, virtue ethics, right ethics

Course Outline (Continued)

- Engineering as social experimentation
  - Engineering experimentation
  - Engineers as responsible experimenters: Consciousness, Comprehensive perspectives, Moral autonomy , Accountability,
- Commitment to safety
  - Safety and risk
  - Assessing and reducing risk

Course Outline (Continued)

- Workplace responsibility and right
  - Teamwork
  - Confidential and Conflict of interest
  - Rights of engineers, Whistle blowing
- Honesty
  - Truthfulness, trust worthiness, integrity
  - Consulting engineers
  - Expert witness

Course Outline (Continued)

- Environmental ethics
  - Engineering, Ecology and Economics
  - Ethical frameworks
- Global Issues
  - Multinational corporations
  - Computer ethics and the internet
  - Weapon development

Course Outline (Continued)

- Engineers and technological concept
  - Cautious optimism
  - Moral leadership
- Case study
  - Ford pinto
  - DC 10
  - Challenger
  - Bhopal
  - Etc

Engineering Ethics

"Technology can have no legitimacy unless it inflicts no harm"- Adm.H.G. Rickover, father of the US nuclear navy.

-*What does Adm. Rickover mean by this?*

- *Should engineers avoid technology that has the potential for inflicting harm on a society or its members?*

Engineering Ethics

- Engineers have an ethical and social responsibility to themselves, their clients and society.
- Practically (although there is much debate about this), engineering ethics is about balancing cost, schedule, and risk.

What is Engineering Ethics?

Engineering Ethics is:

- the study of moral issues and decisions confronting individuals and organizations involved in engineering and
- the study of related questions about moral ideals, character, policies and relationships of people and organizations involved in technological activity.

Questionable Engineering Practices

- Trimming – “smoothing of irregularities to make data look extremely accurate and precise”
- Cooking – “retaining only those results that fit the theory and discarding others”.
- Forging – “inventing some or all of the research data…”
- Plagiarism – misappropriating intellectual property.
- Conflicts of interest (such as accepting gifts.)

Wrong Engineering Practices

- Lying -
- Deliberate deception
- Withholding information
- Failing to adequately promote the dissemination of information
- Failure to seek out the truth
- Revealing confidential or proprietary information
- Allowing one's judgment to be corrupted.

Senses of “Engineering Ethics”

- Ethics is an activity and area of inquiry. It is the activity of understanding moral values, resolving moral issues and the area of study resulting from that activity.
- When we speak of ethical problems, issues and controversies, we mean to distinguish them from non moral problems.
- Ethics is used to refer to the particular set of beliefs, attitudes and habits that a person or group displays concerning moralities.
- Ethics and its grammatical variants can be used as synonyms for ‘morally correct’.

Morality and Ethics

- Concerns the goodness of voluntary human conduct that affects the self or other living things
- Morality (Latin *mores*) usually refers to any aspect of human action
- Ethics (Greek *ethos*) commonly refers only to professional behavior

Variety of Moral Issues

- *MICRO-ETHICS* emphasizes typically everyday problems that can take on significant proportions in an engineer's life or entire engineering office.

- *MACRO-ETHICS* addresses societal problems that are often shunted aside and are not addressed until they unexpectedly resurface on a regional or national scale.

Moral Problems in Engineering-Example-1

An inspector discovered faulty construction equipment and applied a violation tag, preventing its continued use. The inspector's supervisor, a construction manager viewed the case as a minor abrasion of the safety regulations and ordered the removal of the tag to speed up the project. When the inspector objected to this, he was threatened with disciplinary action.

Moral Problems in Engineering-Example-2

An electric utility company applied for a permit to operate a nuclear power plant. The licensing agency was interested in knowing what emergency measures had been established for humans safety in case of reactor malfunctioning. The utility engineers described the alarm system and arrangements with local hospitals for treatment. They did not emphasize that this measures applied to plant personnel only and that they had no plans for the surrounding population. When enquired about their omission, they said it was not their responsibility.

Moral Problems in Engineering-Example-3

A chemical plant dumped wastes in a landfill. Hazardous substances found their way into the underground water table. The plant's engineers were aware of the situation but did not change the method of disposal because their competitors did it the same cheap way, and no law explicitly forbade the practice. Plant supervisors told the engineers that it was the responsibility of the local government to identify any problem.

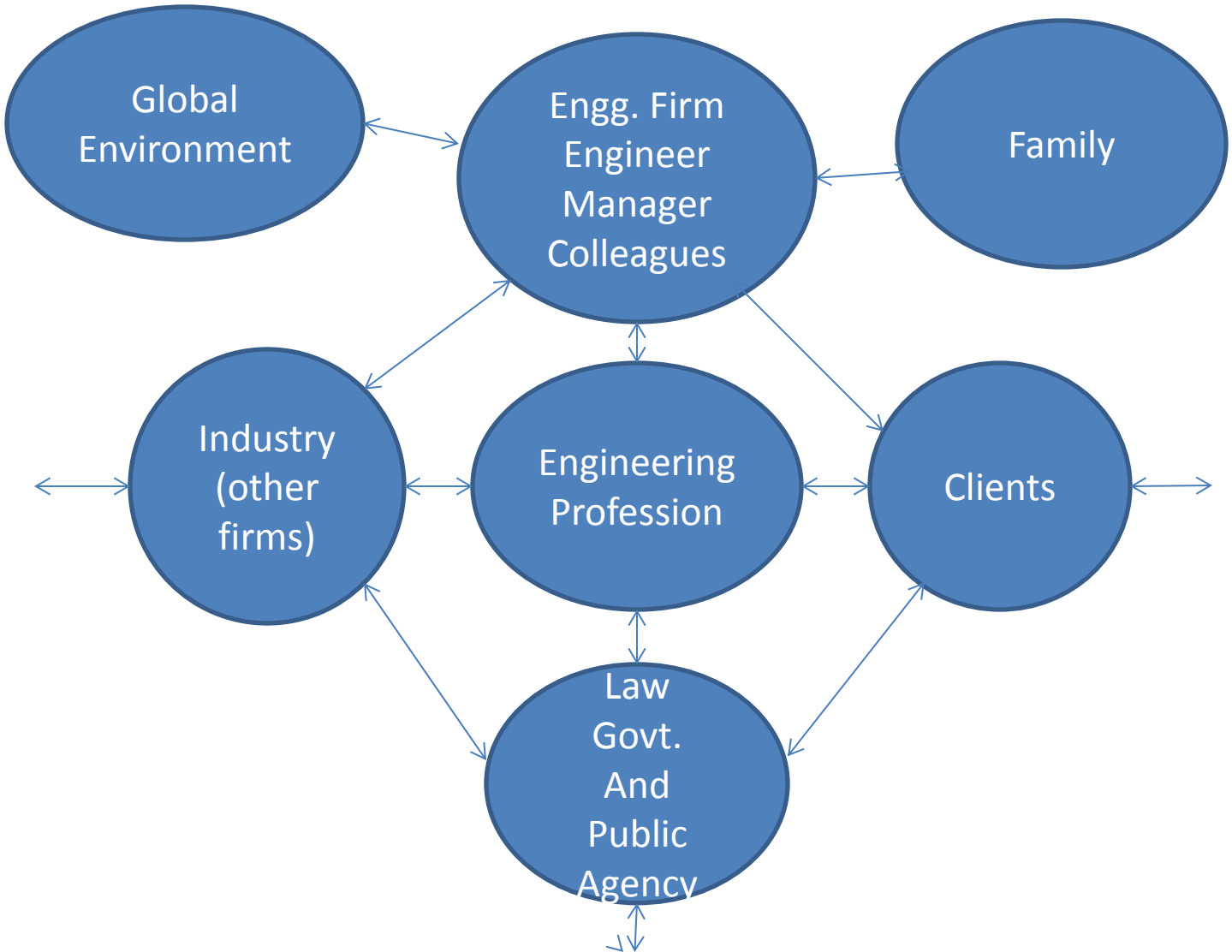
Moral Problems in Engineering-Example-4

Electronics Company ABC geared up for production of its own version of a popular new item. The product was not yet ready for sale, but even so, pictures and impressive specifications appeared in advertisements. Prospective customers were led to believe that it was available off the shelf and were drawn away from competing lines.

Impacts of an engineer's ethical decisions:

- The Products & Services (safety and utility)
- The Company and its Stockholders
- The Public and Society (benefits to the people)
- Environment (Earth and beyond)
- The Profession (how the public views it)
- The Law (how legislation affects the profession and industry)
- Personal Position (job, internal moral conflict)

Stakeholders



Types of Inquiries

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- Normative Inquiry
- Conceptual Inquiry
- Factual(Descriptive) Inquiries

Types of Inquiries (Continued)

- **Normative Inquiry**

These are about ‘what ought to be’ and ‘what is good’. These questions identify and also justify the morally desirable norms or standards.

Some of the questions are:

A. How far engineers are obligated to protect public safety in given situations?

B. When should engineers start whistle blowing on dangerous practices of their employers?

C. Whose values are primary in taking a moral decision, employee, public or govt.?

D. Why are engineers obligated to protect public safety?

E. When is govt. justified in interfering on such issues and why?

Types of Inquiries (Continued)

- **Conceptual Inquiry**

  These questions should lead to clarifications on concepts, principles and issues in ethics. Examples are:

  A) What is ‘SAFETY’ and how is it related to ‘RISK’

  B) ‘Protect the safety, health and welfare of public’- What does this statement mean?

  C) What is a bribe?

  D) What is a ‘profession’ and who are ‘professionals’?

Types of Inquiries(Continued)

- **Factual(Descriptive) Inquiries**

  These are inquiries used to uncover information using scientific techniques. These inquiries get to information about business realities, history of engineering profession, procedures used in assessment of risks and engineers psychology.

Why study *Engineering Ethics?*

- When students enter the professional world, they will be expected to follow an explicit or implicit ethical code.
- To responsibly confront moral issues raised by technological activity
- How to deal with ethical dilemmas in their professional lives?
- To achieve moral autonomy

Moral Dilemmas

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.

Moral Dilemmas (Continued)

Steps in confronting MORAL DILEMMAS:

i) Identify the relevant moral factors and reasons.

ii) Gather all available facts that are pertinent to the moral factors involved.

iii) Rank the moral considerations in the order of their importance as they apply to the situation.

iv) Consider alternative course of action, tracing the full implications of each, as ways of solving dilemma.

v) Talk with colleagues, seeking the suggestions and perspectives of the dilemma.

vi) Arrive at a carefully reasoned judgment by weighing all the relevant moral factors and reasons in light of facts.

Moral Autonomy

- This is viewed as the skill and habit of thinking rationally about ethical issues on the basis of moral concerns independently or by self-determination.
- 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.

Moral Autonomy – An Example

"One who breaks an unjust law must do so openly, lovingly, and with a willingness to accept the penalty. I submit that an individual who breaks a law that conscience tells him is unjust and willingly accepts the penalty… is in reality expressing the highest respect for the law." *Rev. Martin Luther King, Jr.* in **Letter from a Birmingham Jail**, 1963.

Skills to Improve Moral Autonomy

i) Proficiency is recognizing moral problems and issues in engineering.

ii) Skill in comprehending, clarifying and critically assessing arguments on opposing sides of moral issues.

iii)The ability to form consistent and comprehensive viewpoints based upon consideration of relevant facts.

iv) Awareness of alternate responses to issues and creative solutions for practical difficulties.

v) Sensitivity to genuine difficulties and subtleties

Skills to Improve Moral Autonomy (Continued)

vi) Increased precision in the use of a common ethical language necessary to express and also defend one's views adequately.

vii) Appreciation of possibilities of using rational dialogue in resolving moral conflicts and the need for tolerance of differences in perspective among morally reasonable people.

viii) A sense of importance of integrating one's professional life and personal convictions i.e. maintaining one's moral integrity.

KOHLBERG'S THEORY

STAGES OF MORAL DEVELOPMENT

- *Pre-conventional Level*

  Whatever benefits oneself or avoids punishment. This is the level of development of all young children. -Avoid punishment & Gain Reward

- *Conventional Level*

  Uncritical acceptance of one's family, group or society are accepted as final standard of morality. Most adults do not mature beyond this stage. -1.Gain Approval & Avoid Disapproval & 2. Duty & Guilt

KOHLBERG'S THEORY (Continued)

- *Post-conventional Level*

  Motivation to do what is morally reasonable for its own sake, rather than solely from ulterior motives, with also a desire to maintain their moral integrity, self-respect and the respect of other autonomous individuals. They are 'Morally autonomous' people. -1. Agreed upon rights & 2. Personal moral standards

GILLIGAN'S THEORY

- *Pre-conventional Level*

  This is the same as Kohlberg's first level in that the person is preoccupied with self centered reasoning, caring for the needs and desires of self.

- *Conventional*

  Here the thinking is opposite in that, one is preoccupied with not hurting others and a willingness to sacrifice one's own interests in order to help or nurture others (or retain friendship).

- *Post-conventional Level*

  Achieved through context-oriented reasoning, rather than by applying abstract rules ranked in a hierarchy of importance. Here the individual becomes able to strike a reasoned balance between caring about other people and pursuing one's own self-interest while exercising one's rights.

Differences between the TWO THEORIES

KOHLBERG	GILLIGAN
I. Ethics of rules and rights	*Ethics of care*
II. Studies based on well educated, white male's only, tending male bias.	*Studies included females and colored peoples*
III. Application of abstract rules ranked in the order of importance	*Application of context-oriented reasoning.*
IV. Studies were hypothesized for both the genders even though the study was conducted mostly on males	*Study was conducted on both genders and it was found, men based their reasoning on 'justice' and women based theirs on 'care'*

HEINZ'S DILEMMA

The famous example used by Kohlberg was called "Heinz's dilemma". A woman living in Europe would die of cancer unless she was given an expensive drug. Her husband, Heinz, could not afford it. But the local pharmacist, who had invented the drug at only one tenth of the sale price refused to sell it to Heinz who could only raise half the required money from borrowings. Desperation drives Heinz to break into the pharmacy and steal the drug to save his wife. Was the theft morally right or wrong?.

Dilemma – Example-2

- The hijacked plane with 200 people is approaching a building with 50,000 people
- Vote! Will you shoot down the plane?
- You cannot subscribe to both principles in the case.
- A true moral dilemma
- Which position has the greatest weight in the circumstances?

CONSENSUS AND CONTROVERSY

CONSENSUS:

The conductor of a music orchestra has authority over the musicians and his authority is respected by them by consensus as otherwise the music performance will suffer. Hence the authority and autonomy are compatible.

- On the other hand, tension arises between the needs for autonomy and the need for concerns about authority. The difference between the two should be discussed openly to resolve the issue to the common good.

CONSENSUS AND CONTROVERSY

CONTROVERSY:

- All individuals will not arrive at same verdict during their exercising their moral autonomy.
- Aristotle noted long ago that morality is not as precise and clear-cut as arithmetic.
- Aim of teaching engineering ethics is not to get unanimous conformity of outlook by indoctrination, authoritarian and dogmatic teaching, hypnotism or any other technique but to improve promotion of tolerance in the exercise of moral autonomy.

PROFESSIONS AND PROFESSIONALISM

- Engineers normally imagine that they are servants to organizations rather than a public guardian. Responsibility to the public is essential for a professional.
- Who is a professional?

  Obviously a *member* of a profession.

PROFESSIONS AND PROFESSIONALISM (Continued)

- What is a profession?

  'JOB' or 'OCCUPATION' that meets the following criteria from which a person *earns his living.*

  - Knowledge – Exercise of skills, knowledge, judgment and discretion requiring extensive formal criteria.
  - Organization - special bodies by members of the profession to set standard codes of ethics,
  - Public good-The occupation serves some important public good indicated by a code of ethics.

PROFESSIONS AND PROFESSIONALISM (Continued)

- Who is a professional engineer?
  - Has a bachelor's degree in engineering from an accredited school
  - Performs engineering work
  - Is a registered and licensed Professional Engineer
  - Acts in a morally responsible way while practicing engineering

Differing views on Professionals

- “Only consulting engineers who are basically independent and have freedom from coercion can be called as professionals.” -Robert L.Whitelaw
- “Professionals have to meet the expectations of clients and employers. Professional restraints are to be imposed by only laws and government regulations and not by personal conscience.”

  -Samuel Florman

Differing views on Professionals (Continued)

- “Engineers are professionals when they 1) attain standards of achievement in education, job performance or creativity in engineering and 2) accept the most basic moral responsibilities to the public as well as employers, clients, colleagues and subordinates.” -Mike Martin & Roland Schinzinger

MOTIVES FOR PROFESSIONALISM

- A desire for interesting and challenging work and the pleasure in the act of changing the world.
- The joy of creative efforts. Where a scientist's interest is in discovering new technology, engineers interest is derived from creatively solving practical problems.
- The engineer shares the scientist's job in understanding the laws and riddles of the universe.

MOTIVES FOR PROFESSIONALISM (Continued)

- The sheer magnitude of the nature – oceans, rivers, mountains and prairies – leads engineers to build engineering marvels like ships, bridges, tunnels, etc., which appeal to human passion.
- The pleasure of being in the presence of machines generating a comforting and absorbing sense of a manageable, controlled and ordered world.
- Strong sense of helping, of directing efforts towards easing the lot of one's fellows.

The main pleasure of the engineer will always be to contribute to the well-being of his fellow-men.

MODELS OF PROFESSIONAL ENGINEERS

1. SAVIOR: The representative engineer is a savior who will redeem society from poverty, inefficiency, waste and the drudgery of manual labour.
2. GUARDIAN: Engineers know, the directions in which and pace at which, technology should develop.
3. BUREAUCRATIC SERVANT: The engineer as the loyal organization person uses special skills to solve problems.
4. SOCIAL SERVANT: Engineers, in co-operation with management, have the task of receiving society's directives and satisfying society's desires.
5. SOCIAL ENABLER AND CATALYST: Engineers play a vital role beyond mere compliance with orders. They help management and society understand their own needs and to make informed decisions.
6. GAME PLAYER: Engineers are neither servants nor masters of anyone. They play by the economic game rules that happen to be in effect at a given time.

Case Study:DC-10 Cargo Door

- On June 12, 1972 A DC-10 left Detroit with 67 passengers, after reaching 12,000 ft, the cargo door blew off, collapsing floor and disrupting all hydraulic controls to tail section. Only the pilot's skill and the light load prevented a disaster.
- June 27, 1972 Daniel Applegate, Director of Product Engineering for Convair, the fuselage contractor, wrote a memo to his supervisors detailing potential problems of cargo door. The problem was first recognized in Aug 69. The same thing had also happened in a ground test in 1970.
- Recognized design flaws - floor, latch

Case Study:DC-10 Cargo Door

- After the Detroit near-disaster, NTSB (National Transportation Safety Board) investigation revealed several problems and recommended immediate design changes. FAA (Federal Aviation Administration)did not follow NTSB recommendations. FAA director John Shaffer and Douglas President Jackson McGowan reached a gentleman's agreement to voluntarily fix problem, but no further official action was taken.
- In July 1972, Three inspectors at Long Beach plant certified that Ship 29 had been modified (but it was not). Two years later, after leaving Paris, its cargo door blew off at 13,000 feet, killing 346 people.

Case Study:DC-10 Cargo Door

- McDonnel Douglas was in precarious financial condition - trying to beat Lockheed L1011 to market
- Convair did not push too hard, since by contract, they may have been held liable for the costs of all design changes
- Engineers pressed the matter through normal channels to the highest levels within both companies, but did not take it any further, Standard operating procedure at McDonnell Douglas and Convair was for engineers to defer to upper management, even though they were aware of serious design flaws

Were the engineers negligent?

Professional Ideals and Virtues

The spirit of professionalism is shown in the moral ideals to which a profession is dedicated. These moral ideals specify virtues, which emphasizes ideals of good character.

- TYPES OF ETHICAL THEORIES
  - Virtue ethics-Virtues and vices
  - Utilitarianism-Most good for most people
  - Duty ethics-Duties to respect persons
  - Rights ethics-Human Rights

Virtue Ethics

- Focuses on the type of person we should strive to be
- Actions which reflect *good character* traits (virtues) are inherently *right*
- Actions which reflect *bad character* traits (vices) are inherently *wrong*
- Virtue ethics are tied more to individual behavior than to that of an organization (e.g. business, government)

Aristotle- Virtue and the Golden Mean

ARISTOTLE says that moral virtues are tendencies, acquired through habit formation, to reach a proper balance between extremes in conduct, emotion, desire and attitude i.e. virtues are tendencies to find the Golden Mean between the extremes of too much(excess) and too little(deficiency)

Examples:

- *Truthfulness is the mean between revealing all information in violation of tact and confidentiality* (excess) and being secretive or *lacking in candor* (deficiency).
- *Generosity is the virtue lying between wasting one's resources (excess) and being miserly* (deficiency).

MacIntyre-Virtues and Practices

MACINTYRE begins with the idea of social Practices- cooperative activities aimed towards achieving public goods that could not otherwise be achieved, at least not to the same degree. These goods are internal to the practices and they differ from external goods, like money and prestige, which can be achieved through many different kinds of activities and do not define any specific practice.

Examples:

- The primary internal good of medicine is the promotion of health in accordance with respect for patients' autonomy.
- The primary internal good of law is social justice
- The internal good of teaching is learning and self-development

PROFESSIONAL RESPONSIBILITY

- Being morally responsible as a professional.
- Most basic and comprehensive professional virtue.
- Creation of useful and safe technological products while respecting the autonomy of clients and public, especially in matters of risk taking.

Types of Virtues

1. SELF DIRECTION VIRTUES:

   Fundamental virtues in exercising our moral autonomy and responsibility. e.g. self understanding, humility, good moral judgment, courage, self discipline, perseverance, commitments, self-respect and dignity

2. PUBLIC SPIRITED VIRTUES:

   Focusing on the good of the clients and public affected by the engineers' work.

3. TEAMWORK VIRTUES:

   Enables professionals to work successfully with others. E.g. collegiality, cooperativeness, the ability to communicate, respect for authority, loyalty to employers and leadership qualities.

4. PROFICIENCY VIRTUES:

   Mastery of one's craft that characterize good engineering practice e.g. competence, diligence, creativity, self-renewal through continuous education.

MORAL INTEGRITY

- Moral integrity is the unity of character on the basis of moral concern, and especially on the basis of honesty. The unity is consistency among our attitudes, emotions and conduct in relation to justified moral values.

SELF-RESPECT

- Valuing oneself in morally appropriate ways.
- Integral to finding meaning in one's life and work
- A pre-requisite for pursuing other moral ideals and virtues.
- Self-respect is a moral concept of properly valuing oneself but self-esteem is a psychological concept of positive attitude towards oneself.

Self-respect takes two forms.

1. *Recognition self-respect* is properly valuing oneself because of one's inherent moral worth, the same worth that every other human being has.

2. *Appraisal self-respect* is properly valuing ourselves according to how well we meet moral standards and our personal ideals.

VARIOUS SENSES OF RESPONSIBILITY

- Responsibility ascribed by
  i) virtue
  ii)obligations
  iii) general moral capacities of people
  iv) liabilities and accountability for actions and
  v) blameworthiness or praiseworthiness.

VARIOUS SENSES OF RESPONSIBILITY

1. By virtue: A person is said to be a responsible person when we ascribe a moral virtue to the person. We expect that the person is regularly concerned to do the right thing, is conscientious and diligent in meeting obligations. In this sense, professional responsibility is the central virtue of engineers.
2. By obligation: Moral responsibilities can be thought of as obligations or duties to perform morally right acts.
3. By general moral capacity: When we view a person as a whole rather than one with respect to a specific area, we are actually thinking about the active capacity of the person for knowing how to act in morally appropriate ways e.g. the capacity of children grow as they mature and learn.

VARIOUS SENSES OF RESPONSIBILITY

4. By accountability: Responsibility also means being accountable, answerable or liable to meet particular obligations. The virtue of professional responsibility implies a willingness to be accountable for one's conduct.
5. By being blameworthy: When accountability for a wrongdoing is at issue, responsible becomes a synonym for blameworthy. When right conduct is the issue, the context is praiseworthiness.

CAUSAL AND LEGAL RESPONSIBILITIES

- *Causal Responsibility*: consists simply in being a cause of some event. E.g. lightning as being responsible for a house catching fire.
- *Legal Responsibility*: An engineer or engineering firm can be held legally responsible for harm that was so unlikely and also unforeseeable that no moral responsibility is involved.

THEORIES ABOUT RIGHT ACTION

On October 10, 1973, Spiro T. Agnew resigned as vice president of the United States amidst charges of bribery and tax evasion related to his previous service as county executive of Baltimore County. A civil engineer and lawyer, he had risen to influential positions in local government. As county executive from 1962 to 1966 he had the authority to award contracts for public works projects to engineering firms. In exercising that authority he functioned at the top of a lucrative kickback scheme.

THEORIES ABOUT RIGHT ACTION

Lester Matz and John Childs were two of the many engineers who participated in that scheme. Their consulting firm was given special consideration in receiving contracts for public works projects so long as they made secret payments to Agnew of five percent of fees from clients. Even though their firm was doing reasonably well, they entered into the arrangement in order to expand their business. They felt that in the past they had been denied contracts from the county because of their lack of political connections.

THEORIES ABOUT RIGHT ACTION

Clearly, the actions of the participants were unethical. But what reasons can be given to establish this conclusion? Why was it wrong for the engineers to make secret payments to Spiro Agnew in return for being given preference in the awarding of contracts for public projects?

UTILITARIANISM

- Which produces the maximum benefit for the greatest number of people (e.g. Democracy)
- Tries to achieve a balance between the good and bad consequences of an action
- Tries to maximize the well-being of society and emphasizes what will provide the most benefits to the largest group of people
- This method is fundamental to many types of engineering analysis, including risk-benefit analysis and cost-benefit analysis

Drawbacks:

- Sometimes what is best for the community as a whole is bad for certain individuals in the community
- It is often impossible to know in advance which decision will lead to the most good

UTILITARIANISM- APPROACHES

- Act utilitarian – “Will the course of action produce more good than any alternative course of action that I could take”?
- Rule utilitarian – “Would utility be maximized if everyone did the same thing in the same circumstances”? Adoption of commonly accepted rules.

ACT-UTILITARIANISM (professed by John Stuart Mills)

- Focuses on individual actions, rather than general rules.
- An act is right if it is likely to produce the most good for the most people involved in the particular situation.
- Rules may be broken whenever doing so will produce the most good in a specific situation.
- Happiness is the only ‘intrinsic’ good and all others are ‘instrumental’ goods that serve as the means of happiness.

RULE-UTILITARIANISM (professed by Richard Brandt)

- This regards moral values as primary.
- We should follow the rules and avoid bribes, even when those acts do not have the best consequences in a particular situation, because the general practice of following rules and not bribing produce the most overall good
- Rules should be considered in sets called ‘moral codes’. A moral code is justified when followed, would maximize the public good more than alternative codes would.

DUTY ETHICS-(Immanuel Kant's view)

- Kant's contends that certain acts (or duties) should be performed because they are inherently ethical such as:
  - be honest,
  - keep promises,
  - do not inflict sufferings on other people,
  - be fair,
  - make reparation when you have been unfair,
  - how gratitude for kindness extended by others
  - seek to improve own intelligence and character,
  - develop one's talents,
  - don't commit suicide.
- Duties, rather than good consequences, is fundamental.
- Individuals who recognize their ethical duties will choose ethically correct moral actions

DUTY ETHICS-(Immanuel Kant's view) (Continued)

These duties should meet Kant's 3 conditions i.e.

1. It should express respect for persons,
   - People deserve respect because they have capacity to be *autonomous and for exercising goodwill*.
   - Goodwill is the *conscientious and honest effort* to do what is right according to universal principles of duties.
   - Moral motives and intentions play a prominent role in duty ethics rather than utilitarianism.
2. It is an universal principle
   - Duties are binding on us only if they are applicable to everyone. They must be universalisable.
3. It expresses command for autonomous moral agents. Duties prescribe certain actions categorically, without qualifications or conditions attached. Valid principles of duties are *Categorical Imperatives*. They contrast with non-moral commands called *Hypothetical Imperatives* which are conditional.

DUTY ETHICS-(Immanuel Kant's view) (Continued)

- *Drawback of Kant's duty ethics:* It has failed to be sensitive to how principles of duty can *conflict* with each other thereby creating Moral dilemmas.

Rawls' Two Principles

Rawls argues that all rational people would agree to abide by two basic moral principles:

1. Each person is entitled to the most extensive amount of liberty compatible with an equal amount for others and
2. Differences in social power and economic benefits are justified only when they are likely to benefit everyone, including members of most disadvantaged groups.

RIGHTS ETHICS (JOHN LOCKE)

- Everyone has inherent moral rights
- Everyone has rights that arise from *EXISTING* (i.e. right to Life, maximum individual Liberty, and human Dignity are Fundamental Rights) and other rights arise as a Consequence.
- Duties arise because people have rights, not vice versa.
- Any act that violates an individual's moral rights is ethically unacceptable.
- Rights ethics was highly individualistic.
- Rights are primarily entitlements that prevent other people from meddling in one's life. These are referred to as Liberty Rights or Negative Rights that place duties on other people not to interfere with one's life.

e.g. Individuals do not have rights to life because others have duties not to kill them. Instead, possessing the right to life is the reason why others ought not to kill them.

RIGHTS ETHICS (JOHN LOCKE) (Continued)

- Drawbacks
  - How do we prioritize the rights of different individuals?
  - Rights ethics often promote the rights of individuals at the expense of large groups/society

A.I.Melden's version of Rights Ethics

- Human rights are intimately related to communities of people.
- This version is known as POSITIVE WELFARE RIGHTS and is defined as rights to community benefits for living a minimally decent human life.

Uses of Ethical Theories

Ethical theories have three important uses:

1. Understanding and resolving Moral Dilemmas
2. Justifying Professional moral obligation
3. Relating ordinary and Professional Morality

Uses of Ethical Theories (Continued)

Resolving Moral Dilemmas

- Ethical theories aid in identifying the moral considerations or reasons that constitute a dilemma.
- They provide a precise sense of what kinds of information are relevant to solving moral development.
- They sometimes, offer ways to rank the relevant moral considerations in order of importance and provide a rough guidance in solving moral problems.
- The theories help us identify the full moral ramifications of alternative courses of action, urging a wide perspective on the moral implications of the options and providing a systematic framework of comparing alternatives.
- The theories augment the precision with which we use moral terms and they provide frame works for moral reasoning when discussing moral issues with colleagues.
- By providing frame works for development of moral arguments, the theories strengthen our ability to reach balanced and insightful judgments.

Uses of Ethical Theories (Continued)

Justifying Moral Obligations

- Ethical theories can be used to justify the general obligations of engineers and others involved in technological development.

  Eg. Safety related obligations in DC-10 Cargo Door – the applications of utilitarianism, right ethics, and duty ethics in providing a moral foundation for professional responsibilities.

Uses of Ethical Theories (Continued)

Relating ordinary and Professional Morality

- The special obligations concerning safety that engineers acquire as a consequence of their work are intimately connected with ordinary or everyday morality.
- The ethical theories that are useful in expressing everyday moral experience are also useful in justifying the obligations of professionals.

ASSIGNMENT

Apply utilitarianism, duty ethics, and right ethics in resolving the following moral problems. Be sure to consider alternative versions of each theory, such as act-utilitarianism and rule-utilitarianism. Do the theories lead to the same or different answer to the problem?

a. A train is approaching a switch, and it is travelling too fast to stop before a tragedy occurs. Tied to one fork of the track are the leaders of three important nations(who are vital to current efforts to achieve world peace and prosperity). Tied to other the other fork are four people who are your closest friends and relatives, but who have no international or even national social importance. If you were in control of the switch, which fork in the track ought you to select?

b. A doctor can save the lives of three important national leaders by making transplants of the kidneys and heart of local convicted mass murderer who is serving a life sentence. The operations would be done in secret and would involve the full cooperation of the local police official, who would claim the murderer was killed while trying to escape from prison. Is it morally permissible to make the transplants?

Dad Dilemma

Joe is a fourteen-year-old boy who wanted to go to camp very much. His father promised him he could go if he saved up the money for it himself. So Joe worked hard at his paper route and saved up the forty dollars it cost to go to camp, and a little more besides. But just before camp was going to start, his father changed his mind. Some of his friends decided to go on a special fishing trip, and Joe's father was short of the money it would cost. So he told Joe to give him the money he had saved from the paper route. Joe didn't want to give up going to camp, so he thinks of refusing to give his father the money.

Dad Dilemma

1. Should Joe refuse to give his father the money?
   - 1a. Why or why not?

- 2. Does the father have the right to tell Joe to give him the money?
  - 2a. Why or why not?

- 3. Does giving the money have anything to do with being a good son?
  - 3a. Why or why not?

Theft Dilemma

Two young men, brothers, had got into serious trouble. They were secretly leaving town in a hurry and needed money. Karl, the older one, broke into a store and stole a thousand dollars. Bob, the younger one, went to a retired old man who was known to help people in town. He told the man that he was very sick and that he needed a thousand dollars to pay for an operation. Bob asked the old man to lend him the money and promised that he would pay him back when he recovered. Really Bob wasn't sick at all, and he had no intention of paying the man back. Although the old man didn't know Bob very well, he lent him the money. So Bob and Karl skipped town, each with a thousand dollars

Theft Dilemma

- Which brother was more wrong?
  - Why would you say that?

- What do you think is the worst thing about cheating the old man?
  - Why is that the worst thing?