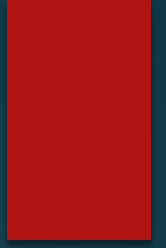


# Professional Ethics -

HUT 200

# Module 1

## Human Values



# Values, Morals, and Ethics

- ▶ **Values** include a deep-rooted system of beliefs that guide a person's decisions (Friendship, Honesty, Success)
- ▶ **Morals** (also known as moral values) are the system of beliefs that emerge out of values (Helping a friend, Stealing is bad)
- ▶ **Ethics** determine what behaviors are "right" or "wrong" (Cheating a friend, Stealing from a workplace, Malpractice in an exam)

# Integrity, Academic integrity, Work ethics

- ▶ **Integrity** means showing a consistent and uncompromising adherence to strong values, morals and ethics
- ▶ **Academic integrity** is the expectation that teachers, students, researchers and all members of the academic community act with strong values, morals and ethics
- ▶ Work ethics represent a set of ethical attitudes towards work that regulates employees' behavior at work (Work hard, punctuality)

# Service Learning, Civic Virtue, Respect for others

- ▶ **Service Learning** is a combination of what we know as formal education and applying that learning in a service oriented way (NSS activities, Community service during natural calamities)
- ▶ **Civic Virtue** is often conceived as the dedication of citizens to the common welfare of each other even at the cost of their individual interests (Mahatma Gandhi, 'Kattappa' in Bhahubali, 'Karnan' in Mahabharata)
- ▶ **Respect** means treating everyone and everything with care (The golden rule is to treat others the way you would like to be treated)

# Living Peacefully, Caring and Sharing

- ▶ **Living in peace** is about living harmoniously with yourself, others, and the environment around you
- ▶ **Caring** is feeling for others and it is a process which exhibits the interest in and support for the welfare of others with fairness, impartiality and justice in all activities
- ▶ **Sharing** is a process that describes the transfer of knowledge (teaching, learning, and information), experience (training), commodities (material possession) and facilities with others

# Courage, Cooperation and Commitment

- ▶ **Courage** means the ability to do something that you know is difficult or dangerous
- ▶ **Cooperation** is the process of groups of organisms working or acting together for a common purpose
- ▶ **Commitment:** A promise to do or give something / Loyal to someone or something / The attitude of someone who works very hard to do or support something

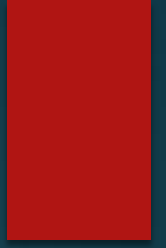
# Empathy, Self-confidence and Social Expectations

- ▶ **Empathy** is the capacity to understand or feel what another person is experiencing from within their frame of reference (The capacity to place oneself in another's position)
- ▶ **Self-confidence** is an attitude about your skills and abilities and it means you accept and trust yourself (You know your strengths and weakness well and have a positive view of yourself)
- ▶ **Social expectation** is an internalized social norm for individuals and organizations about what people should do



# Module 2

## Engineering Ethics and Professionalism



# Senses of Engineering Ethics, Variety of moral issues

- ▶ **Normative sense:** Study of decisions, policies, and values that are morally desirable in the engineering practice and research
- ▶ **Descriptive sense:** Refers to what specific individual or group of engineers believe and act, without justifying their beliefs or actions
- ▶ **Moral issue:** Any issue with the potential to help or harm anyone, including oneself (Organization oriented issues, Clients or customers oriented issues, Competitors oriented issues)

# Types of inquiry – Normative, Conceptual, and Descriptive

- ▶ **Normative Inquiry** refers to what one ought to do under a specific circumstance (Responsibility of engineers to protect the public safety)
- ▶ **Conceptual Inquiry** refers to the description of the meaning of concepts, principles and issues related to engineering ethics
- ▶ **Descriptive inquiry** help to provide the facts for understanding and finding solutions to the value based issues (The engineer has to conduct factual inquiries by using scientific techniques)

# Moral dilemma, Moral Autonomy, Kohlberg's theory

- ▶ **Moral dilemmas** are situations in which the decision-maker must consider two or more moral values or duties but can only honor one of them
- ▶ **Moral Autonomy** is concerned with independent attitude of a person related to moral/ethical issues (The ability to think critically and independently about moral issues)
- ▶ **Kohlberg's theory** of moral development is a theory that focuses on how children develop morality and moral reasoning (Theory suggests that moral development occurs in three levels having a series of six stages; two stages in each level)

# Kohlberg's theory ...

- ▶ **Level 1: Preconventional level**

- ▶ Stage 1: Punishment/obedience orientation (The individual will obey in order to avoid punishment)
- ▶ Stage 2: Instrumental purpose orientation (The individual focuses on receiving rewards or satisfying personal needs)

- ▶ **Level 2: Conventional level**

- ▶ Stage 3: Good Boy/Nice Girl orientation (Behaviour is determined by social approval)
- ▶ Stage 4: Law and order orientation (Social rules and laws determine behaviour)

- ▶ **Level 3: Postconventional or principled level**

- ▶ Stage 5: Social contract orientation (Individual rights determine behaviour)
- ▶ Stage 6: Universal ethical principle orientation (determined by one's self-chosen ethical principles of conscience)

# Gilligan's Theory

- ▶ Gilligan argued that girls exhibit distinct patterns of moral development based on relationships and on feelings of care and responsibility for others
- ▶ **Pre-conventional Level:** A person in this stage cares for oneself to ensure survival
- ▶ **Conventional Level:** In this stage, the person feels responsible and shows care towards other people
- ▶ **Post-conventional Level:** This is the stage, where the principle of care for self as well as others, is accepted

# Consensus and Controversy, Profession and Professionalism, Models of Professional Role

- ▶ **Consensus** means agreement and **Controversy** means disagreement (Consensus is a process of that seeks widespread agreement among group members while Controversy is a debate of opposing opinions)
- ▶ **Profession** means a job or an occupation and **Professionalism** can be understood as the practice of doing the right thing
- ▶ **Models of Professional Role** are the expected functions of a member of a particular profession

# Models of Professional Roles for an Engineer

- ▶ **Savior:** Save society from poverty, inefficiency, waste and drudgery of manual labor
- ▶ **Guardian:** Guards the interests of the poor and general public with expertise of technology
- ▶ **Bureaucratic Servant:** Serves the organization and the employers
- ▶ **Social Servant:** Exhibits social responsibility like entrepreneurs
- ▶ **Social Enabler and Catalyst:** One who changes the society through technology with the cooperation of organization and society
- ▶ **Game Player:** Playing roles successfully within the organization, (enjoying the excitement of the profession) and having the satisfaction of surging ahead in a competitive world



# Theories about right action (Ethical theories)

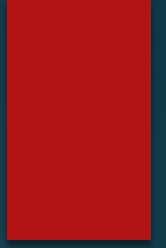
- ▶ Depending upon the ethics a person is intended to follow, four theories were postulated by four different philosophers
- ▶ **Golden Mean Theory** (Aristotle) : A “Mean value of solution” between the extremes of excess and deficiency (Industrialisation and Pollution, Quality and Cost, Rules and Freedom)
- ▶ **Rights-based Ethical Theory** (John Locke): The solution to a problem is by realizing that every person has a right to live (The rights of a person towards life, health, liberty, possession, etc. are taken care of under this theory)
- ▶ **Duty-based Ethical Theory** (Immanuel Kant): Every person has a duty to follow which is accepted universally, with no exceptions
- ▶ **Utilitarian Ethics Theory** (John Stuart): A particular action is right if it is likely to produce the higher level of good for the most people in a given situation (Liberal valuation if questions are tough)

# Self-interest, Customs and Religion

- ▶ **Self-interest** generally refers to a focus on the needs or desires (interests) of one's self
- ▶ A **custom** is an action influenced by community tradition, which is usually repeated in the same form on similar occasions (Namaste, Hand shake, Hugging)
- ▶ It is called **religious custom** when it has a religious content, and comprises the communal expression of religious life (Prayer, marriage)

# Module 3

## Engineering as Social Experimentation



# Engineering as experimentation, Engineers as responsible experimenters

- ▶ Engineering involves development of product or project, and as a whole it can be considered as an experiment
- ▶ The process of engineering has to go through a series of different experiments when it comes to practical application (like design, simulation, prototype testing, final design, manufacture, field study etc.)
- ▶ **Responsibility in Experimentation:** Safety of human beings, Monitoring the results of the experiment continuously, Accountability for the results of the project and Exhibiting expertise in projects

# Codes of Ethics for Engineers

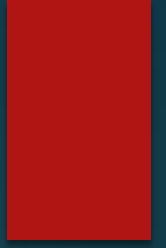
- ▶ The codes of ethics play eight important roles to strengthen the moral issues on Engineers' work
- ▶ Serving and protecting the public
- ▶ Guidance
- ▶ Inspiration
- ▶ Shared Standards
- ▶ Support for Professionals
- ▶ Education and Mutual understanding
- ▶ Deterrence and Discipline
- ▶ Contributing to the Profession's Image

# Plagiarism, A balanced outlook on Law

- ▶ **Plagiarism** is presenting someone else's work or ideas as your own (Research papers, Product ideas, Music, Pictures, Videos etc.)
- ▶ **Plagiarism** is an act of fraud and can be punishable under law (Copy right violation, Violation of Patents)
- ▶ To live in harmony in the society, one should learn to maintain a balance between individual needs and collective needs of the society
- ▶ The ethical conduct which can maintain such balance, can be applied with the help of laws
- ▶ Laws are important as the people are not completely responsible and because of the competitive nature of the free enterprise system which does not encourage moral initiative
- ▶ (Assignment: Challenger and Bhopal case studies)

# Module 4

## Responsibilities and Rights



# Collegiality and Loyalty

- ▶ **Collegiality** is the relationship between colleagues
- ▶ Companionship and cooperation between colleagues who share responsibility
- ▶ Colleagues are those explicitly united in a common purpose and respecting each other's abilities to work toward that purpose
  
- ▶ **Loyalty** means dedication and faithfulness to a nation, cause, philosophy, group, organization, or person
- ▶ People demonstrate their loyalty to a sports team by cheering for it
- ▶ People demonstrate their loyalty to a political party by voting only for the people of that party
- ▶ Brand loyalty is the notion that consumers stick with a particular brand or product, like a car or computer



# Managing Conflict

- ▶ **Conflict** means disagreement between persons, groups, organisations, states, or nations that results in arguments
- ▶ In the world of today, organizations hire employees from diverse geographical locations with dissimilar cultural and intellectual backgrounds, as well as various viewpoints
- ▶ In a working environment where people have disparate outlooks toward the same problems, disagreements are bound to happen
- ▶ **Conflict management** is integral in the corporate world as it helps to distinguish a good business from a bad one
- ▶ Clarify what is the source of conflict - Find a safe and private place to talk - Listen actively and let everyone have their say - Investigate the situation - Determine ways to meet the common goal - Agree on the best solution and determine the responsibilities each party has in the resolution - Evaluate how things are going and decide preventative strategies for the future

# Respect for Authority, Collective Bargaining,

- ▶ **Respect for Authority** means to feel or show esteem, honor, and appreciation for authorities
- ▶ Respect for authority is an indicator of good mental health and it prevents individuals from being harmed or harming others
- ▶ **Collective bargaining** is a process of negotiation between two parties to reach an agreement
- ▶ In a workplace, it is a fair process of negotiation to protect the interests of workers and employers
- ▶ It is the process in which employees through their unions, negotiate contracts with their employers to determine their terms of employment, including pay, benefits, hours, leave, job health and safety policies etc.

# Confidentiality, Conflict of Interest

- ▶ **Confidentiality** is the principle and practice of keeping sensitive information private unless the owner or custodian of the data gives explicit consent for it to be shared with another party
- ▶ As a part of moral integrity, confidentiality keep individuals present and respect specific self-images of themselves and others during social interaction
- ▶ A **conflict of interest** involves a person or entity that has two relationships competing with each other for the person's loyalty
- ▶ A conflict of interest occurs when an individual's personal interests (family, friendships, financial, or social factors) could compromise his or her judgment, decisions, or actions in the workplace

# Occupational crime, Professional Rights

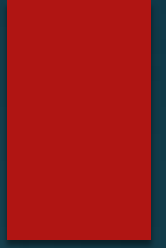
- ▶ **Occupational crime** (Workplace crime) refers to a crime committed by someone during the course of his or her employment
- ▶ Occupational crime includes theft, money laundering, and the misuse of company property or information
- ▶ **Professional Rights** mean the rights that individuals have as professionals which include:
  - ▶ The right of professional conscience (Decisions/Actions with ethics)
  - ▶ The right of conscientious refusal (Refusing unethical acts)
  - ▶ The right of professional recognition (Acknowledgement by the organization/Others)

# Employee rights, IPR Discrimination

- ▶ Employee rights mean fundamental rights employees are entitled during the course of their employment which safeguard the employee from discrimination and protect their workplace interests
- ▶ Discrimination can be based on age, gender, race or religion
- ▶ Workplace interests like privacy, workplace safety, health, remuneration and other service benefits
- ▶ Intellectual property rights (Patents) are the rights given to persons for their creations (Entitle the creator an exclusive right over the use of his/her creation for a certain period of time)
- ▶ Discrimination Dimension to grounds of refusal for Trademark Registration (Fair & Lovely changed to Glow & Lovely)

# Module 5

## Global Ethical Issues



# Multinational Corporations, Environmental Ethics,

- ▶ A **multinational corporation** (MNC) is one that has business operations in two or more countries
- ▶ These companies are often managed from and have a central office headquartered in their home country, but with offices worldwide
- ▶ The field of **environmental ethics** concerns human beings' ethical relationship with the natural environment
- ▶ Environmental ethics consider humans as well as other living creatures (animals and plants) are part of environment
- ▶ Environmental ethics is very important to conserve world and manage our natural resources to meet increasing needs and wants

# Business Ethics, Computer Ethics

- ▶ **Business ethics** are the moral principles that act as guidelines for the way a business conducts itself and its transactions
- ▶ Basic standards exist around the world that dictate what is wrong or unethical in terms of business practices (Unsafe working condition, Environmental pollution)
- ▶ **Computer ethics** is a set of principles that regulates the use of computers
- ▶ Computer ethics address issues related to the misuse of computers and how they can be prevented
- ▶ Issues include using computer to harm/spy other people's data, spreading misinformation using computer technology, using pirated softwares etc.



# Role of ethics in Technological Development

- ▶ The **ethics of technology** is a sub-field of ethics addressing the ethical questions specific to the Technology Age
- ▶ Technology ethics is the application of ethical thinking to the growing concerns of technology as technologies give people more power to act than before
- ▶ As technology continues to develop and have the power to alter people's daily lives, questions surrounding what is ethical or not will remain
- ▶ Role of ethics is very much relevant in different areas of technology advancements in medical, information, defense etc.
- ▶ Eg: Brain death, Clinical trials, Information leaks (Facebook), Advances in Weapon Technology etc.

# Engineers as Managers

- ▶ Engineers as Managers have to plan, coordinate and oversee the technical and engineering activities of an organization
- ▶ The characteristics of engineers as managers:
  - ▶ 1. Promote an ethical climate (through organization policies, responsibilities and by personal attitudes)
  - ▶ 2. Resolving conflicts (by evolving priority, developing mutual understanding, generating various alternative solutions to problems)
  - ▶ 3. Social responsibility to stakeholders, customers and employers (by developing wealth for the organization as well as developing welfare of the society)

# Engineers as Consultants, Expert witnesses, Advisors

- ▶ The consulting engineers work in private and they have more freedom to decide on their projects
- ▶ The consulting engineers have ethical responsibilities different from the salaried engineers in areas like advertising of services, competitive pricing, safety aspects etc.
- ▶ Expert witness mean to act as consultants and provide expert opinion and views in many legal cases of the past events
- ▶ Expert witnesses are required to explain the causes of accidents, malfunctions and other technological behavior of structures, machines, and instruments
- ▶ Engineers as advisors are required to give their view on the future such as in planning, policy-making, designing, forecasting etc.

# Moral Leadership for Engineers

- ▶ Moral Leadership means adopting reasonable ways to motivate groups to achieve morally desirable goals
- ▶ The goals as well as the means are to be moral
- ▶ Contributes to the professional societies, professions, and to their communities
- ▶ Promotes services without fee or at reduced fees to the needy groups
- ▶ Contributes to community service
- ▶ Corporate organizations adopting villages and execute many social welfare schemes indicate moral leadership of organisations