

**Pune Vidyarthi Griha's
College of Engineering, Nashik**



Handbook on Human Values and Professional Ethics

The education of future citizens needs to be redressed so that a better balance is achieved between academic excellences, Human values and professional ethics. 'Value' comes from the Latin word 'valere' which means to be of worth, to be strong. The value literally means something that has price, something precious, dear and worthwhile; hence something one is ready to suffer and scarifies for; if necessary one is ready to die for it. Quality education is the fundamental right of every Indian citizen. Quality Education lays the good foundation for Individual growth. PVG's College of Engineering is committed to impart quality education, to create skilled man power for the nation.

OBJECTIVES:

(Engineering Ethics & Human Values)

- To understand the moral values that ought to guide the Engineering profession, Resolve the moral issues in the profession,
- To justify the moral judgment concerning the profession.
- Intended to develop a set of beliefs, attitudes, and habits that engineers should display concerning morality.
- To create an awareness on Engineering Ethics and Human Values.
- To inspire Moral and Social Values and Loyalty.
- To appreciate the rights of others.

The prime objective of the Professional Ethics is to develop ability to deal effectively with moral complexity in engineering students of as follows.

HUMAN VALUES

Moral are the worthy ideals or principles that one follows to distinguish the right from the wrong. These ideals or virtues are considered worthy in building up the character of an individual. They were edited, changed or modified rulers (dynasty) according with the development of knowledge in engineering and technology time to time.

Moral Value refers to the good virtues such as honesty, integrity, truthfulness, compassion, helpfulness, love, respectfulness, hard-work; etc Morality is concerned with principles and practices of morals such as:

- Q1. What ought not to be done in a given situation?
- Q2. What is right or wrong about the handling of a situation?
- Q3. What is good or bad about the people, policies, and ideals involved?

VALUES:

Humans have the unique ability to define their identity, choose their values and establish their beliefs. All three of these directly influence a person's behavior. People will act congruent with their personal values or what they deem to be important. **A value is defined as a principle that promotes well-being or prevents harm.**

Personal values are defined as: —**Emotional beliefs in principles regarded as particularly favorable or important for the individual.**|| our values associate emotions to our experiences and guide our choices, decisions and actions.

Types of Values

1. Values related to Right Conduct are:

(a) Self-help Skills: Care of possessions, diet, hygiene, modesty, posture, self reliance, and tidy appearance.

(b) Social Skills: Good behavior, good manners, good relationships, helpfulness, No wastage, and good environment, and

(c) Ethical Skills: Code of conduct, courage, dependability, duty, efficiency ingenuity, initiative, perseverance, punctuality, resourcefulness, respect for all, and responsibility

2. Values related to PEACE are: Attention, calmness, concentration, contentment, dignity, discipline, equality, equanimity, faithfulness, focus, gratitude, happiness, harmony, humility, inner silence, optimism, patience, reflection, satisfaction, self-acceptance, self-confidence, self-control, self-discipline, self-esteem, self-respect, sense control, tolerance, and understanding.

3. Values related to Truth are: Accuracy, curiosity, discernment, fairness, fearlessness, honesty, integrity (unity of thought, word, and deed), intuition, justice, optimism, purity, quest

for knowledge, reason, self-analysis, sincerity, spirit of enquiry, synthesis, trust, truthfulness, and determination.

4. Values related to Love are: Acceptance, affection, care, compassion, consideration, dedication, devotion, empathy, forbearance, forgiveness, friendship, generosity, gentleness, humanness, interdependence, kindness, patience, patriotism, reverence, sacrifice, selflessness, service, sharing, sympathy, thoughtfulness, tolerance and trust.

5. Values related to Non-violence are:

(a) Psychological: Benevolence, compassion, concern for others, consideration, forbearance, forgiveness, manners, happiness, loyalty, morality, and universal love

(b) Social: Appreciation of other cultures and religions, brotherhood, care of environment, citizenship, equality, harmlessness, national awareness, perseverance, respect for property, and social justice.

INTEGRITY:

Integrity is defined as the unity of thought, word and deed (honesty) and open mindedness. It includes the capacity to communicate the factual information so that others can make well-informed decisions. It yields the person's 'peace of mind', and hence adds strength and consistency in character, decisions, and actions.

RESPECT:

This is a basic requirement for nurturing friendship, team work, and for the synergy it promotes and sustains. The principles enunciated in this regard are:

- ✓ Recognize and accept the existence of other persons as human beings, because they have a right to live, just as you have.
- ✓ Respect others' ideas (decisions), words, and labor (actions). One need not accept or approve or award them, but shall listen to them first. One can correct or warn, if they commit mistakes. Some people may wait and watch as fun, if one falls, claiming that they know others' mistakes before and know that they will fall! Appreciate colleagues and

subordinates on their positive actions. Criticize constructively and encourage them. They are bound to improve their performance, by learning properly and by putting more efforts.

CARING:

Caring is feeling for others. It is a process which exhibits the interest in, and support for, the welfare of others with fairness, impartiality and justice in all activities, among the employees, in the context of professional ethics. It includes showing respect to the feelings of others, and also respecting and preserving the interests of all others concerned. Caring is reflected in activities such as friendship, membership in social clubs and professional societies, and through various transactions in the family, fraternity, community, country and in international councils.

HONESTY:

Honesty is a virtue, and it is exhibited in two aspects namely,

- Truthfulness
- Trustworthiness.

Truthfulness is to face the responsibilities upon telling truth. One should keep one's word or promise. By admitting one's mistake committed (one needs courage to do that!), it is easy to fix them. Reliable engineering judgment, maintenance of truth, defending the truth, and communicating the truth, only when it does 'good' to others, are some of the reflections of truthfulness. But trustworthiness is maintaining integrity and taking responsibility for personal performance.

COURAGE:

Courage is the tendency to accept and face risks and difficult tasks in rational ways. Self-confidence is the basic requirement to nurture courage. Courage is classified into three types, based on the types of risks, namely

- Physical courage,

- Social courage, and
- Intellectual courage.

VALUING TIME:

Time is rare resource. Once it is spent, it is lost forever. It can't be either stored or recovered. Hence, time is the most perishable and most valuable resource too. This resource is continuously spent, whether any decision or action is taken or not.

The history of great reformers and innovators have stressed the importance of time and valuing time.

COOPERATION:

It is a team-spirit present with every individual engaged in engineering. Co-operation is activity between two persons or sectors that aims at integration of operations (synergy), while not sacrificing the autonomy of either party. Further, working together ensures, coherence, i.e., blending of different skills required, towards common goals.

The impediments to successful cooperation are:

- Clash of ego of individuals.
- Lack of leadership and motivation.

COMMITMENT:

Commitment means alignment to goals and adherence to ethical principles during the activities. First of all, one must believe in one's action performed and the expected end results (confidence). It means one should have the conviction without an iota of doubt that one will succeed. Holding sustained interest and firmness, in whatever ethical means one follows, with the fervent attitude and hope that one will achieve the goals, is commitment. It is the driving force to realize success.

EMPATHY:

Empathy is social radar. Sensing what others feel about, without their open talk, is the essence of empathy. Empathy begins with showing concern, and then obtaining and understanding the feelings of others, from others' point of view. It is also defined as the ability to

put one's self into the psychological frame or reference or point of view of another, to know what the other person feels. It includes the imaginative projection into other's feelings and understanding of other's background such as parentage, physical and mental state, economic situation, and association. This is an essential ingredient for good human relations and transactions.

SELF-CONFIDENCE:

Certainty in one's own capabilities, values, and goals, is self-confidence. These people are usually positive thinking, flexible and willing to change. They respect others so much as they respect themselves. Self-confidence is positive attitude, wherein the individual has some positive and realistic view of himself, with respect to the situations in which one gets involved. The people with self-confidence exhibit courage to get into action and unshakable faith in their abilities, whatever may be their positions.

The people with self-confidence have the following characteristics:

- ✓ A self-assured standing
- ✓ Willing to listen
- ✓ To learn from others and adopt (flexibility),
- ✓ Frank to speak the truth
- ✓ Respect others' efforts and give due credit.

CHARACTER:

It is a characteristic property that defines the behavior of an individual. It is the pattern of virtues (morally-desirable features). Character includes attributes that determine a person's moral and ethical actions and responses. It is also the ground on which morals and values blossom. People are divided into several categories, according to common tendencies such as ruthless, aggressiveness, and ambition, constricting selfishness, stinginess, or cheerfulness, generosity and goodwill.

Following types of characters should be followed by the engineers.

- ✓ Active (great and the mediocre), and
- ✓ The apathetic (purely apathetic or dull), and
- ✓ The intelligent.

Education and Character

The aim of education is not only the cultivation of the intellect but also the formation of moral character. Increased intelligence or physical skill may as easily be employed to the detriment or benefit of the community, if not accompanied by improved will. It is the function of ethics to determine the ideals of human character.

SPIRITUALITY:

Spirituality is a way of living that emphasizes the constant awareness and recognition of the spiritual dimension (mind and its development) of nature and people, with a dynamic balance between the material development and the spiritual development. This is said to be the great virtue of Indian philosophy for Indians. Sometimes, spirituality includes the faith or belief in supernatural power/ God, regarding the worldly events. It functions as a fertilizer for the soil _character' to blossom into values and morals.

Spirituality includes creativity, communication, recognition of the individual as human being (as opposed to a life-less machine), respect to others, acceptance (stop finding faults with colleagues and accept them the way they are), vision (looking beyond the obvious and not believing anyone blindly), and partnership (not being too authoritative, and always sharing responsibility with others, for better returns).

PROFESSIONAL ETHICS

INTRODUCTION

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. Engineering ethics is a means to increase the ability of concerned engineers, managers, citizens and others to responsibly confront moral issues raised by technological activities. The awareness of moral issues and decisions confronting individuals and organizations are involved in Engineering & Technology.

ENGINEERING ETHICS: WHY STUDY ENGINEERING ETHICS?

➤ **Training In Preventive Ethics:**

-
- Stimulating the moral imagination
- Recognizing ethical issues
- Developing analytical skills
- Eliciting a sense of responsibility
- Tolerating disagreement and ambiguity

➤ **Obstruction to Responsibility:**

- Self-interest.
- Fear.
- Self-deception.
- Ignorance.
- Egocentric tendencies.
- Groupthink.

➤ **Clearly 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.

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.) Actual, Potential, Apparent.

➤ **Senses of Expression 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.

Professional Ethics:

Professional ethics is the set of standards adopted by professionals. Every profession has its professional ethics: medicine, law, pharmacy etc. Engineering ethics is the set of ethical standards that applies to the engineering profession. Some of the important characteristics of professional ethics are:

- **Formal code:** Unlike common morality and personal morality, professional ethics is usually stated in a formal code. Many such codes are promulgated by various components of the profession.
- **Focus:** The professional codes of ethics of a given profession focus on the issues that are important in that profession. Professional codes in the legal profession concern themselves with questions such as perjury of clients and the unauthorized practice of law.
- **Precedence:** In a professional relationship, professional ethics takes precedence over personal morality. This characteristic has an advantage, but it can also produce complications. The advantage is that a client can justifiably have some expectations of a

professional, even if the client has no knowledge of the personal morality of the professional.

- **Restriction:** The professional ethics sometimes differs from personal morality in its degree of restriction of personal conduct. Sometimes professional ethics is more restrictive than personal morality, and sometimes it is less restrictive.
- **Two dimensional:** Professional ethics, like any ethics, has a negative as well as a positive dimension. Being ethical has two aspects: *(a)* preventing and avoiding evil, and *(b)* doing or promoting good.
- **Role morality:** This means the moral obligations based on special roles and relationships. For example, Parents having a set of obligations to their children, such as not to harm their children, nourish them and promote their flourishing. A political leader has a role morality, the obligation to promote the well-being of citizens. Professional ethics is one of the examples of role morality.