ETHICS AND VALUES

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SKILL





GOKARAJU RANGARAJU

Institute of Engineering and Technology

(Autonomous)

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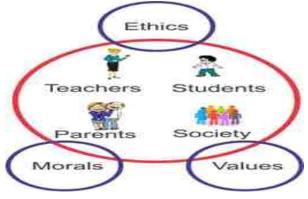
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Educational ethics

Educational ethics encompasses a relatively broad area of ethical concerns related to education as such. It can be defined as consisting out of three major fields, namely deliberation and reflection on educational policies (especially those directly related to ethical concerns), moral education and professional ethics (including aspects of teacher education as key part of their professional development). It is important particularly since it usually harbors great potential for systematic research and aids policy-makers in shaping educational systems. It further deals with philosophical and especially ethical sources of educational aims and goals and investigates ethical dimension of different pedagogical approaches and paradigms.



Teaching ethics

Teaching ethics refers primarily to a set of principles, rules, values and ideals of teachers and educators profession. It is therefore a type of professional ethics, which is developed for specific professional community of teachers and other educators. There are various views and approaches to teaching ethics (its teaching and implementation), encompassing both a narrower field of professional codes of ethics of teachers and educators as well as more broadly, application of ethical theories to teaching practice and discussion and analysis of specific ethical challenges that teachers encounter in their domain of work. In teaching ethics teachers and educators strive to achieve the highest ideals of their professional service.



Relationships

One of the most important aspects of ethics and values education is its holistic aspect, which means that ethics and values must be inherent in schools or learning community as a whole. At the base of ethics is the importance of relationships and this is why this section briefly exposes some of the aspects of relationship management. Some of the more specific aspects are presented below among methodologies (conflict management and conflict prevention).



Honesty and Integrity in **Professional** Dealing: **Engineers** shall maintain high degree of honesty and personal integrity in all their **professional** dealings. They shall conduct themselves in a fair, honest and respectable manner.

- Engineering is transforming science into useful products for human comfort.
- Engineering is something that engineers do, and what they do has profound effects on others.
- Ethics in engineering then is the ability as well as responsibility of an engineer to judge his decisions from the context of the general well being of the society.



It is the study of moral issues that confront engineers and engineering organizations when some crucial decisions are taken. Engineering research and practice requires that the task being performed considers all the pros and cons of a certain action and its implementation.

Ethical standards in engineering are influenced by many factors:

- 1. Engineering as an experimentation for the good of mankind is a notable factor involving far reaching consequence.
- 2. Ethical dilemmas make engineering decisions relatively difficult to make.
- 3. Risk and safety of citizens as a social responsibility is a prime concern of an engineer.
- 4. Technological advancement can be very demanding on the engineering skill in the global context.
- 5. Moral values and responsible conduct will play a crucial role in decision.

Ethics:

- Study of right or wrong.
- Good and evil.
- Obligations & rights.
- Social & Political deals.

Engineering Ethics:

Study of the moral issues and decisions confronting individuals and organizations engaged in engineering/profession.

Study of related questions about the moral ideas, character, policies and relationships of people and corporations involved in technological activity.

Moral standards/values and systems of morals.

Need to stud Ethics:

- To responsible confront moral issues raised by technological activity.
- To recognize and resolve moral dilemma.
- To achieve moral autonomy.

The scope of engineering ethics envelopes diverse activities like

- 1. Engineering as a social experimentation
- 2. Engineers responsibility for safety
- 3. Role of engineers, managers, consultants etc.
- Rights of engineers
- 5. Moral reasoning and ethical theories
- 6. Responsibility in studies
- 7. Global issues and concerns

Moral Vs Ethics

Moral:

- Refers only to personal behavior.
- Refers to any aspect of human action.
- Social conventions about right or wrong conduct.

Ethics:

- Involves defining, analyzing, evaluating, and resolving moral problems.
- Developing moral criteria to guide human behavior.
- Critical reflection on what one does and why one does it.
- Refers only to professional behavior.

Engineering Ethics

Engineering is an important and learned profession. Engineers are expected to exhibit the highest standards of honesty and integrity. Engineering has a direct and vital impact on the quality of life for all people. Accordingly, the services provided by engineers require honesty, impartiality, fairness, and equity, and must be dedicated to the protection of the public health, safety, and welfare. Engineers must perform under a standard of professional behaviour that requires adherence to the highest principles of ethical conduct. Engineering ethics can be considered in three frames of reference—individual, professional, and social.

Engineering ethics can be further divided into "microethics", concerned with individuals and the internal relations of the engineering profession and "macroethics", concerned with the collective, social responsibility of the engineering profession and societal decisions about technology.

Ethical responsibility

- making wise choices when such choices suddenly,
 unexpectedly present themselves
- a willingness to engage others in the crucial choices
- making choices on issues that confront technological society and how intelligently to confront them



Professional Ethics

The moral responsibility of engineers arise from special knowledge possessed by an individual in the profession. The Professional ethics

Codes of Ethics

Codes of ethics vary from one professional society to another, but they typically share common features in prescribing the responsibilities of engineers to the public, their employers and clients, and their fellow engineers.

Safety

One of the main duties of an engineer is to ensure the safety of the people who will be affected by the products that he or she designs. The code of ethics of the professional engineering societies make it clear that safety is of paramount importance to the engineer.



Ethical Issues

The common ethical issues or dilemmas faced by engineers are,

- Public Safety
- The engineer has an obligation to the employer but also to protect the society. Sometimes he or she may be forced to neglect the safety checks to meet with the production targets.
- Corruption, Bribery and Fraud Corruption is dishonest or fraudulent conduct by those in power
- An engineer may be bribed to give permit to a potentially harmful project



Environmental Protection

- Generally the engineering goals and environmental goals are conflicting
- Engineers today are grappling with the ethical dilemmas posed by the conflicts between the economic and environmental requirements of their work

Fairness

- An engineer's decisions will have an impact on a variety of different groups of people.
- As a professional an engineers has a duty to treat all of these people fairly.
- It is sometimes difficult to identify exactly who will be affected by a particular decision, and what their interests are
- Honesty in Research and Testing
- · Conflict of Values and Conflict of Interest
- There exists conflicts between the professional values of engineering and business values (discussed in the next section).

Conflict of Interest (CoI) is often a common issues faced by many people in their profession where one's professional interests comes in conflict with personal interests. Conflict of Interest will undermine the concept of fairness (refer previous article for more clarity)

Macro Ethics

Macroethics looks at bigger picture issues such as sustainability, poverty, social justice, and bioethics which need to be addressed by the engineering profession (and society) as a whole.

Moral Awareness — One should be able to recognize the moral problems and issues that occur in Engineering. The analysis on the problem is necessary in order to differentiate and judge according to ethics or according to the rules to follow.



Cogent Moral Reasoning — In order to come to a conclusion on an issue, the argument has to be assessed and comprehended. The argument on both sides has to be considered with all the probabilities and the nature of the argument should be logical and moral.

Moral Coherence – After having gone through all the logical and moral facts, consistent and comprehensive view points are to be formed based upon a consideration of relevant facts.

Moral Imagination — The moral issues and the practical issues have to be dealt separately. Alternative responses are to be found out for dealing with moral issues while creative solutions should be found out for practical difficulties.



Moral Communication — The language to communicate about one's moral views should be so precise and clear, that the expression or words should not alter the original meaning. Though one has all these moral goals, the ethical reasoning for achieving moral conduct with responsibility and commitment is obtained by a few skills that are described below.

Important Skills for Ethical Reasoning

Moral Reasonableness – The ability and willingness to be morally reasonable that one should have while dealing such issues. Unless one is willing and improve such ability, justice cannot be done.



Respect for Persons – The persons involved in the issue, should be treated with genuine concern by one. Such concern should also be there with oneself along with being there for others.

Tolerance of diversity — One should have a broader perspective towards ethnic and religious differences that the people have. Every person differs with another when compared on grounds of moral reasoning. The acceptance of those differences is really important.

Moral hope – The moral conflicts can be resolved by using better communication and having rational dialogue which is evident-based and open-ended which is acceptable and appreciable by both the parties.

Integrity – The moral integrity has to be maintained. Being honest and having strong moral principles helps one to resolve an issue in an efficient manner. An individual also needs to consider other's professional life and personal convictions while solving a problem.

Conclusion. Integrity is an **ethical** stance that leads an individual to adhere to his or her **values.** An **ethical** code is a listing of principles, **values** and aspirations based on desired conduct and born in the traditions of the healing professions.





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