

ENGINEERING ETHICS

Dr. Moustafa A. Chaaban
Egyptian Society of Mechanical Engineers
Professor, Ain Shams University, Faculty of Engineering
Cairo, Egypt

Contents

- Introduction
- What does word Ethic mean?
- Elements of Engineering Ethics
- In Engineering Profession
- Engineer relation with public
- Engineer relation with client and staff
- Relation between engineers

Introduction

- Several meetings of Engineering Syndicate in the world had already taken place in order to put forward Engineering Ethics.
- Also several International Engineering Conferences had already considered Engineering ethics aiming to promote the profession.

What does word Ethic mean?

- The study of standard of conduct and moral judgment.
- The code of morals of a particular person, religion, group, profession, etc.
- So, Ethics are very important for engineering profession and also engineers.

Elements of Engineering Ethics

- Responsibility to society, clients and staff.
- Competence.
- Integrity.
- Impartiality.
- Corruption.

In Engineering Profession

- Engineer must help in increasing effectiveness of engineering profession by exchange of information and experience with other engineers, and cooperation with all engineering societies, schools and scientific engineering journals.
- Engineer must not announce of his work and his peculiarities to obtain for himself credit and he must avoid everything which harms the profession.

Engineer Relation with Public

- Recognition duties to society and environment.
- Respect laws, regulations, technical rules and standards.
- Respect the dignity, culture, religion, culture and customs of people.
- Increase public engineering information and must not encourage false lies related to engineering.
- Take sufficient care of safety and health of public and staff.
- When asked to be a witness in front of a court justice or any official organization, he must not give his opinion except when he is sure it is based on sufficient information and correct belief.
- Not to issue false data or critics related to general policies for the benefits of specific side or asked to do it, or rented for it.
- Not to give opinion in engineering subject except has sufficient information and has known all facts related to the subject.
- Maintain knowledge and skills at levels consistent with developments in technology, legislation and management.

Engineer Relation with Clients and Staff

- Apply due skill, care and diligence in the services rendered to the client.
- Perform services only when competent to perform them.
- Take responsibility for the services provided.
- Act in the legitimate interest of the client.
- Provide all services with integrity and faithfulness.
- Not disclose, without the consent of the client, business or technical secrets obtained in the services for that client.
- Be impartial in the provision of professional services, judgment or decisions.
- Inform the client of any potential conflict of interest related to the services to the client.
- Neither offer nor accept remuneration that seeks to influence fair business conduct.

Engineer Relation with Clients and Staff Cont.

- Cooperate fully with any legitimately constituted investigative body which makes inquiry into the administration of any contract for services, supplies or construction. Abuse of public or private office for personal gain/profit.
- Corruption is more than stealing funds, it is stealing trust.
- Transparent procurement procedures should be used, based upon objective selection and award criteria.
- Many governments and international financing institutions are committed to the tackling of corrupt practices.
- Behave in technical matters to client or staff as honest agent and trustable one.
- Behave with honesty and justice in relations with staff and clients and between agents when supervising execution of contracts.
- Clarify position to clients and staff before starting any commitment.
- Take care of dangerous cases which threaten life and body.

Engineer Relation with Clients and Staff Cont.

- Present clearly the consequences expected from any suggested deviation in engineering work responsible of its execution.
- Apply and give advice to clients and staff and cooperate with them.
- Not to disclose any information related to clients or staff commercially or technically without their consents.
- Not to accept any financial reward or others from more than one source for one service without the approval of all persons owners of this service.
- Not to accept any commissions or grant directly or by third party from contractors or other groups for work with client or staff related to the work.
- Not interfere financially in tenders as contractor or between contractors in work except with the approval of client or employer.

Relations Between Engineers

- Protect engineering profession as a whole or individually from any misunderstanding or misinterpretation.
- Give credit of engineering work to person who deserve it.
- Emphasize the principle of sufficient reward and respectable to person performing engineering work.
- Find opportunities to promote and up grade engineers in service for their technical development.
- Not to harm the technical reputation of other engineer and his efforts directly or indirectly. In case parts of engineer's work is not legal and honest forward these information to authorities to take actions.
- Not to replace other engineer employed in specific work.
- Not compete other engineer to get a job by decreasing normal salaries.

Thank you