

Professional Ethics (HS-219)

Week 3 (Handout)

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Code of Ethics



A code of ethics provides a framework for ethical judgment for a professional. No code can be totally comprehensive and cover all possible ethical situations that a professional engineer is likely to encounter.



A code can also express the commitment to ethical conduct shared by members of a profession and it is important to note that ethical codes do not establish new ethical principles.

Codes simply reiterate principles and standards that are already accepted as responsible engineering practice. A code expresses these principles in a coherent, comprehensive, and accessible manner and also defines the roles and responsibilities of professionals.

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Objections to Codes



Relatively few practicing engineers are members of professional societies and they don't necessarily feel compelled to abide by their codes.

However, many engineers who are members of professional societies are not aware of the existence of the society's code, or if they are aware of it, they have never read it.

There are also objections that the engineering codes often have internal conflicts, but they don't give a method for resolving the conflict.

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PEC Code of Ethics

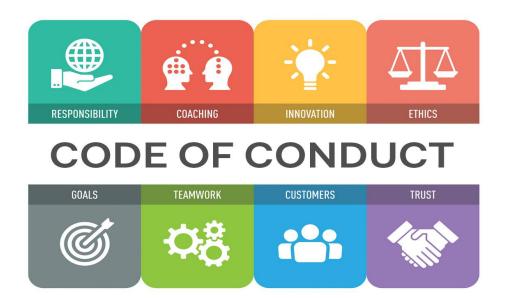


- 1. "Allah commands you to render back your trust to those to whom they are, and that when you judge between people, you judge with justice. Allah admonishes you with what is excellent."
- 2. "Give full measure and weight justly and defraud not men of their things, and act not corruptly in the land, making mischief."
- 3. "And let not hatred of a people incite you not to act equitably, Be just; that is nearer to observance of duty."
- 4. "Fulfill the obligations"
- 5. "And swallow not up your property among yourselves by false means, nor seek to gain access thereby to the judges, so that you may swallow up a part of the property of men wrongfully while you know."
- 6. "And speak straight words."
- 7. "Avoid most of suspicion for surely suspicion in some cases is sin; and spy not nor let some of you backbite others."
- 8. "And follow not that of which thou hast no knowledge. Surely the hearing and sight and heart, of all these it will be asked."
- 9. "And help one another in righteousness and piety, and help not one another in sin and aggression, and keep your duty to God."
- 10. "And whose affairs are decided by counsel among themselves."

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Code of Conduct





Code of conduct clarifies an organization's mission, values and principles, linking them with standards of professional conduct.

Written codes of conduct or ethics become the benchmarks against which individual and organizational performance can be measured.

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CODE OF CONDUCT



Article 1

Article 2

Article 3

Article 4

Article 5

Article 6

Article 7

Article 8

Article 9

Article 10

Article 11

Article 12

Article 13

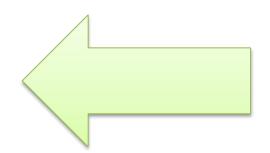
Article 14

Article 15

Article 16

Article 17

Article 18





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- This Code of Conduct may be called the Pakistan Engineering Council Code of Conduct.
- This shall come into force at once.
- This shall apply to all members of the Pakistan Engineering Council.

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To maintain, uphold and advance the honor and dignity of the engineering professional in accordance with this Code, a member shall:

- uphold the ideology of Pakistan;
- be honest, impartial and serve the country, his employer, clients and the public at large with devotion;
- strive to increase the competence and prestige of the engineering profession;
- use his knowledge and skill for the advancement and welfare of mankind;
- promote and ensure the maximum utilization of human and material resources of Pakistan for achieving self-reliance;
- and not sacrifice the national interest for any personal gain.

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A member shall be guided in all professional matters by the highest standards of integrity and act as a faithful agent or a trustee for each of his client and employer.

A member shall:

- be realistic and honest in all estimates, reports, statements and testimony and shall carry out his professional duties without fear or favor;
- admit and accept his own errors when proved and shall refrain from distorting or altering the facts justifying his decision or action;
- advise his client or employer honestly about the viability of the project entrusted to him;
- not accept any other employment to the detriment of his regular work or interest without the consent of his employer;
- not attempt to attract an engineer from another employer by false or misleading pretenses;
- not restrain an employee from obtaining a better position with another employer; and
- not endeavor to promote his personal interest at the expense of the dignity and integrity of the profession.

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A member shall have utmost regard for the safety, health and welfare of the public in the performance of his professional duties and for that purpose he shall:

- regard his duty to the public welfare as paramount;
- seek opportunities to be of service in civic affairs and work for the advancement of the safety, health and well-being of the community;
- not undertake, prepare, sign, approve or authenticate any plan, design or specifications which are not safe for the safety, health, welfare of a person or persons, or are not in conformity with the accepted engineering standards and if any client or an employer insists on such unprofessional conduct, he shall notify the authorities concerned and withdraw from further service on the project; and
- point out the consequences to his client or the employer if his engineering judgment is over-ruled by any non-technical person.

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A member shall avoid all acts or practices likely to discredit the dignity or honor of the profession and for that purpose he shall not advertise his professional services in a manner derogatory to the dignity of the profession. He may, however, utilize the following means of identification.

- professional cards and listing in recognized and dignified publications and classified section of the telephone directories,
- sign boards at the site of his office or projects for which he renders services; and
- brochures, business cards, letter-heads and other factual representations of experience, facilities, personnel and capacity to render services.

A member may write articles for recognized publications but such articles should be dignified, free from ostentations or laudatory implications, based on factual conclusions and should not imply other than his direct participation in the work described unless credit is given to others for their share of the work.

A member shall not allow himself to be listed for employment using exaggerated statements of his qualifications.

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A member shall endeavor to extend public knowledge and appreciation of engineering profession, propagate the achievements of the profession and protect it from misrepresentation and misunderstanding.

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A member shall express an opinion of an engineering subject only when founded on adequate knowledge, experience and honest conviction.

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A member shall undertake engineering assignments only when he possesses adequate qualifications, training and experience. He shall engage or advise for engaging of the experts and specialists whenever the client's or employers' interest are best served by such service.

A member shall not discourage the necessity of other appropriate engineering services, designs, plans or specifications or limit-free competition by specifying materials of particular make or model.

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A member shall not disclose confidential information concerning the business affairs or technical processes of any present or former client or employer without his consent.

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A member shall uphold the principles of appropriate and adequate compensation for those engaged in engineering work and for that purpose he shall not:

- undertake or agree to perform any engineering service free except for civic, charitable, religious, or non-profit organizations or institutions;
- undertake professional engineering work at a remuneration below the accepted standards of the profession in the discipline;
- and accept remuneration from either an employee or employment agency for giving employment.

A member shall offer remuneration commensuration with the qualifications and experience of an engineer employed by him.

A member working in any sales section or department shall not offer or give engineering consultation, or designs, or advice other than specifically applying to the equipment being sold in that section or department.

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A member shall not accept compensation, financial or otherwise, from more than one party for the same service, or for services pertaining to the same work unless all interested parties give their consent to such compensation.

A member shall not accept:

- financial or other considerations, including free engineering design, from material or equipment suppliers for specifying their products; and
- commissions or allowances, directly or indirectly, from contractors or other parties dealing with his clients or employer in connection with work for which he is professionally responsible.

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A member shall not compete unfairly with another member or engineer by attempting to obtain employment, professional engagements or personal gains by taking advantage of his superior position or by criticizing other engineers or by any other improper means or methods.

An engineer shall not attempt to supplant another engineer in a particular employment after becoming aware that definite steps have been taken towards other's employment.

A member shall not accept part-time engineering work at a fee or remuneration less than that of the recognized standard for a similar work and without the consent of his employer if he is already in another employment.

A member shall not utilize equipment, supplies, laboratory or office facilities of his employer or client for the purpose of private practice without his consent.

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A member shall not attempt to injure, maliciously or falsely, directly or indirectly, the professional reputation, prospects, practices or employment of another engineer or member.

A member engaged in private practice shall not review the work of another engineer for the same client, except with knowledge of such engineer or, unless the connection of such engineer with work has been terminated;

Provided that a member shall be entitled to review and evaluate the work of other engineers when so required by his employment duties.

A member employed in any sales or industrial concern shall be entitled to make engineering comparisons of his products with products of other suppliers.

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A member shall not associate with or allow the use of his name by an enterprise of questionable character nor will he become professionally associated with engineers who do not conform to ethical practices or with persons not legally qualified to tender the professional service for which the association is intended.

A member shall strictly comply with the bye-laws, orders and instructions issued by the Pakistan Engineering Council from time to time in professional practice and shall not use the association with a non-engineering corporation, or partnership as a cloak for any unethical act or acts.

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A member shall give credit for engineering work to those to whom credit is due, recognize the proprietary interests of others and disclose the name of a person or persons who may be responsible for his designs, inventions, specifications, writings, or other accomplishments.

When a member uses designs, plans, specifications, data and notes supplied to him by a client or an employer or are prepared by him in reference to such client or the employer's work such designs, plans, specifications, data and notes shall remain the property of the client and shall not be duplicated by a member for any use without the express permission of the client.

Before undertaking any work on behalf of a person or persons for making improvements, plans, designs, inventions or specifications which may justify copyright or patent, a member shall get ownership of such improvements, plans, designs, inventions or specifications determined for the purpose of registration under the relevant copyright and patent laws.

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A member shall disseminate professional knowledge by interchanging information and experience with other members or engineers and students to provide them opportunity for the professional development and advancement of engineers under his supervision.

A member shall encourage his engineering employees to improve their knowledge, attend and present papers at professional meetings and provide a prospective engineering employee with complete information on working conditions and his proposed status of employment and after employment keep him informed of any change in such conditions.

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A member employed abroad shall order his conduct according to this Code, so far as this is applicable, and the laws and regulations of the country of his employment.

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A member shall report unethical professional practices of an engineer or a member with substantiating data to the Pakistan Engineering Council and appear as a witness, if required.

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Codes of the Engineering Societies



In the 20th century, the codes of engineering societies were mostly concerned with issues of how to conduct business.

Later, these codes spelled out the duties that engineers had toward their employers. Less emphasis was given to issues of service to the public and safety.

In 21st century, most of the codes emphasize commitments to safety, public health, and even environmental protection as the most important duties of the engineer.

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Case Study

Sudocom is a small company that provides communications consultancy to local businesses. They are hired by Sealion Finance, a financial services company with 40 staff, to develop an internal communications network for the sharing of non-sensitive information. There is already an intranet for storing and sharing the details of clients and staff, but the CEO of the company wants an easy and less formal way for staff to communicate, along the lines of social networking sites such as Facebook and Twitter. The aim is to foster team spirit as well as streamline discussion of non-confidential information. When Sudocom discuss the work with the CEO of Sealion Finance, Jane Foster, it emerges that she wants minimal security on the new network, limited to a simple password access system. Sudocom inform her that for a system like this, their communication engineers would normally include various other security measures that would make it far more difficult for intruders to access the system. Jane Foster feels that because the system is only designed for non-confidential information, the supplementary measures will not be required. Moreover, the CEO wishes to avoid the effects of the extra security on the performance of the system. To allay Sudocom's professional concerns, Jane Foster assures Sudocom and their engineers that staff will be instructed to only use the new system for non-sensitive information. All confidential data will be shared using the old intranet, which incorporates much more substantial security measures. These discussions have left one of the communication engineers very concerned about Jane Foster's specification. The CEO appears to have placed a great deal of weight on the ability of her employees to refrain from discussing confidential information on the new communications network. In the communication engineer's experience of developing such systems it is hard to predict precisely how staff will use the network. The engineer feels that the CEO is taking greater risks than she might otherwise, because she is in a position of control. The engineer thinks that she is overestimating her ability to influence the communications of her staff, and that the new system should incorporate extra security measures to guard against the accidental discussion of confidential data. The engineer believes that if she was not the CEO of the company she would probably not judge the risks to be acceptable.

Dilemma

You have been hired by the CEO of a company to develop an internal communications system for non-confidential information. You feel that it is important to include substantial safety features, but the CEO is confident – over-confident, in your opinion – in her ability to ensure that staff members restrict their communications to non sensitive information.

Q: What should you do now?

Two Codes of Ethics





Institute of Electrical & Electronics engineers

The IEEE code is short and deals in generalities. It doesn't mention a duty to one's employer.

The NSPE code is much longer and more detailed.

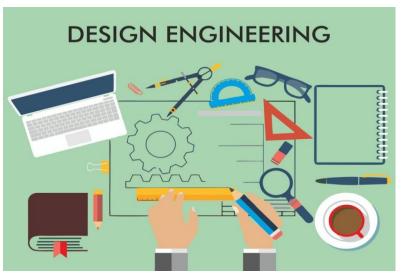


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Ethical Problems







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Resolving Internal Conflicts in NED W Codes



There is no implication in any code of ethics that all clauses are equally important. Rather, there is a hierarchy within the code. Some clauses take precedence over others, although there is generally no explicit indication in the code of what the hierarchy is.

For example: In clause 1.4, the NSPE code indicates that engineers have a duty to their employers, which implies that the engineer should go ahead with the unsafe design favored by his employer. However, clause 1.1 make it clear that the safety of the public is also an important concern of an engineer.

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Can Codes and Professional Societies Protect Employees?



The codes of the professional societies can be used by employees as ammunition against an employer who is sanctioning them for pointing out unethical behavior or who are being asked to engage in unethical acts.

Since not all engineers are members of professional societies and the engineering societies are relatively weak, so the pressure that can be exerted by organizations is limited.



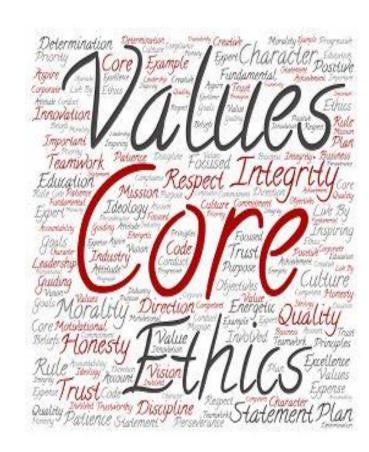
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Other Types of Codes of Ethics NED

Many organizations have developed codes of ethics for various purposes similar to those of the professional engineering organizations.

For example, codes for the ethical use of computers have been developed, and student organizations in universities have framed student codes of ethics.

Since most practicing engineers are not members of professional organizations, it seems that for many engineers, there is little ethical guidance in the course of their daily work. So, this problem has led to the adoption of codes of ethics by many corporations.



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