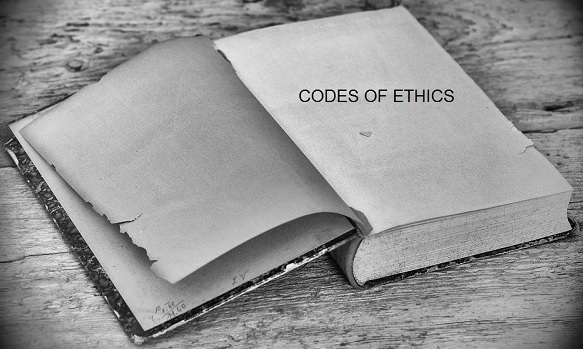
Codes of Ethics

The engineers who are represented as professionals, and who belong to a professional society need to have some moral responsibilities. A code of conduct is important for engineers to remain committed to their world.



The engineering societies such as **AAES, ABET, NSPE, IEEE** and **AICTE** have framed these codes of ethics which are helpful to engineers to strengthen the moral issues on their work. The codes of ethics play at least eight important roles such as the following −

* **Serving and protecting the public** − Engineers are in a responsible position where trust and trustworthiness, both are essential. A code of ethics functions as a commitment by the profession as a whole that engineers will serve the public health, safety and welfare.
* **Guidance** − Codes are written in brief yet prove effective in offering general guidance to the engineers. More specific directions may be given in supplementary statements or guidelines, which tell how to apply the code. If needed, the assistance is obtained for further specification.
* **Inspiration** − Codes of ethics, which specify a collective commitment towards a profession, help in motivating the engineers towards ethical conduct. Actually, these codes make one feel really responsible and proud to be a professional thus motivating towards the commitment one should have towards one’s profession.
* **Shared Standards** − The standards established should be applicable to all individuals, in their particular professions. With the codes of ethics, the public is assured of engineers with minimum standard of excellence and the professionals are provided a fair way to compete.
* **Support for Responsible Professionals** − The professionals who act ethically have more positive support through these codes. A professional engineer who has the intention to stand by the codes of ethics, can have no harm from immoral professional obligations, as he can reject smoothly yet formally. As well, these codes can provide legal support for engineers criticized for living up to work-related professional obligations.
* **Education and Mutual understanding** − The codes which are widely circulated and officially approved by professional societies, promote a shared understanding among professionals, the public and government organizations about the moral responsibilities of engineers. These codes prompt discussion and reflection on moral issues.
* **Deterrence and Discipline** − The professionals who fail to follow the codes exhibit unethical conduct, which is evident from the disobedience towards their profession. Such an investigation generally requires paralegal proceedings designed to get at the truth about a given charge without violating the personal rights of those being investigated. This might lead to expulsion of those whose professional conduct has been proven unethical, which also leads to loss of respect from colleagues and the local community.
* **Contributing to the Profession’s Image** − Codes project the engineers as the professionals of ethically committed profession, which inspires them to work with great commitment and more effectively to serve the public. It can also win greater powers of self-regulation for the profession itself, while lessening the demand for more government regulation.

Advantages of Codes of Ethics

Let us now see the following advantages of codes of ethics. The codes

* Set out the ideals and responsibilities of the profession.
* Exert a **de facto** regulatory effect protecting both clients and professionals.
* Improve the profile of the profession.
* Motivate and inspire practitioners, by attempting to define their raison d’etre.
* Provide guidance on acceptable conduct.
* Raise awareness and consciousness of issues.
* Improve quality and consistency.

Code of Ethics for IT Professionals

Code of Ethics for IT Professionals

**1. A Professional member of the Computer Society of India (CSI) shall:**

* organise the resources available to him and optimise these in attaining the objectives of his organisation,
* use the codes of practice conveyed by the CSI from time to time in carrying out his tasks,
* not misuse his authority or office for personal gains,
* comply with the Indian laws relating to the management of his organisation particularly with regard to Privacy and Piracy, and operate within the spirit of these laws,
* conduct his affairs so as to uphold project and further the image and reputation of the CSI,
* maintain integrity in research and publications.

**2. As regard his ORGANISATION an IT professional should:**

* act with integrity in carrying out the !awful policy and instructions of his organisation and uphold its image and reputation,
* plan, establish and review objectives and tasks for himself and his subordinates which are compatible with the Codes of Practice of other professionals in the enterprise, and direct all available effort towards the success of the enterprise rather than of himself,
* fully respect the confidentiality of information which comes to him in the course of his duties, and not use confidential information for personal gain or in a manner which may be detrimental to his organisation or his clients,
* not snoop around in other people's computer files,
* in his contacts and dealings with other people, demonstrate his personal integrity and humanity and when called to give an opinion in his professional capacity, shall, to the best of his ability, give an opinion that is objective and reliable.

**3. As regards the EMPLOYEES, an IT professional should:**

* set an example to his subordinates through his own work and performance, through his leadership and by taking account of the needs and problems of his subordinates,
* develop people under him to become qualified for higher duties,
* pay proper regard to the safety and well-being of the personnel for whom he is responsible,
* share his experience with fellow professionals.

**4. As regards the CLIENTS, an IT professional should:**

* ensure that the terms of all contracts and terms of business be stated clearly and unambiguously and honoured,
* in no circumstance supply inherently unsafe goods or services,
* not use the computer to harm other people or to bear false witness,
* be objective and impartial when giving independent advice.

**5. As regards the COMMUNITY, an IT professional should:**

* make the most effective use of all natural resources employed,
* be ready to give professional assistance in community affairs,
* not appropriate other people's intellectual output,
* always use a computer in ways that ensure consideration and respect for fellow humans.

## Computer Ethics

Computers with Internet raise a host of difficult moral issues, many of them connected with basic moral concerns such as free speech, privacy, respect for property, informed consent and harm. To evaluate and deal with these issues, a new area of applied ethics called Computer Ethics has come up. These ethics are related to all the computer professionals such as programmers, analysts, operators, designers, etc. along with the users.

The ten commandments of Computer Ethics, created in 1992 by the Computer Ethics Institute consists of the following −

One should **never** use a computer −

* To harm the people (anti-social activities)
* To interfere with other’s work (illegal manipulations)
* To snoop into other’s files (malware)
* To steal a computer/data (hacking)
* To bear false witness (manipulation and morphing)
* To use/ copy a software you didn’t pay for (like illegal downloads and usages)
* To use or copy other’s software without compensations (illegal pirated versions)
* To use other’s intellectual output inappropriately (violating IPR)
* Doing without thinking of social consequences of the program being written (libeling)
* Always use a computer ensuring consideration and respect towards fellow beings.

However, these ethics are facing lax in today’s world. A very small section of concerned individuals seems to be following these ethics. A large section seems to be violating these ethics. With this, there is an unprecedented increase in cybercrime.

### **Role of Computers in Technological Development**

In this section, we will discuss the role of Computers in Technological Development. The limitations of Internet usage and free speech are to be known clearly by every netizen. In this digital era, the morals expected from a human being are the basic tools that control the unethical and sleazy manner of handling the internet.

Internet which is now a global network of networks, initially used the infrastructure of the telephone system and is now being handled by many telecommunication systems by wire, fiber or wireless systems. The Internet provides a spring of new ways to be in contact with other people and with sources of information. It has also created greater convenience in ordering consumer items, paying bills and **social experiments**trading stocks and bonds. Like other major , it also has raised a host of new issues. One set of issues centers on free speech, including control of obscene forms of pornography, hate speech, spam which is unwanted commercial speech and libel. Computers contribute to greater centralization or decentralization insofar as human decision makers direct them.

There come issues which call for trouble wherein, computers are used in embezzlement and other forms of stealing money or financial assets. The issues concerning theft of software and information is again a similar one. The computers are centrally involved when an unauthorized person uses a telephone computer system to obtain private phone numbers or when maliciously alters or scrambles the programming of a telephone computer. In today’s world, malicious people have come up with not one but various ways of exploiting money, goods, services, assets, etc. through the computers and internet. The Internet besides easing our work has also paved way to gather an individual’s confidential details easily.

The two main factors that make computers troublesome are their speed and geographical coverage, which allows the masses to be victimized further. The difficulty lies in tracing the underlying transactions to apprehend the thieves. This problem is compounded when the communication lines linking the computers involved cross national boundaries.

The most commonly discussed cases of computer abuse are instances such as −

* The stealing or cheating by employees at work.
* The stealing by non-employees or former employees.
* The stealing from or cheating clients and consumers.
* The violation of contracts for computers sales or services.
* The many conspiracies to use computer networks to engage in widespread fraud.

Alarmingly, the Internet has led to an explosion of identity theft, in which personal information is obtained and used to forge documents and commit fraud.

### **Privacy Factors**

The misuse of Internet also influences privacy factors. The illegal attackers or hackers get access to restricted data which is a security threat.

* The inappropriate access which leads to security breach in an office leads to the leakage of confidential information which might severely affect the growth of the company.
* The hackers who crack the security and get unauthorized entry into the highly secured information zone, tend to copy the content or they may change the content, delete the content or get it affected with virus as soon as the authorized personnel opens the file.
* The different types of viruses such as Trojan Horse, Memory Resident, Overwrite, Browser Hijacker, Directory Virus, etc. can create instances wherein, the data on computer system get affected in various ways.
* The legitimate access to information is restricted to protect individual privacy, national security and freedom within a capitalist economy to protect proprietary information essential in pursuing corporate goals.
* The Privacy Act of 1947 prohibits the information contained in government files from being used for purposes beyond those for which it was originally gathered.