



# SNS COLLEGE OF ENGINEERING

(Autonomous)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



## Professional Engineering Codes such as ASCE, ASME, IEEE, and ACM





# Professional Engineering Codes of Ethics



- Professional Engineering Codes of Ethics are a set of principles and guidelines that define the ethical and professional standards that engineers must uphold in their practice. These codes are designed to ensure that engineers uphold their professional obligations and responsibilities to the public, clients, employers, and the engineering profession as a whole.



- The codes of ethics provide guidance to engineers on how to conduct themselves in a responsible, ethical, and professional manner. They cover a range of topics, such as protecting public health and safety, maintaining confidentiality, avoiding conflicts of interest, and maintaining the highest levels of professional competence.





# Professional Engineering Codes of Ethics



- Many professional engineering societies and organizations have their own codes of ethics, which are typically based on common ethical principles such as **honesty, integrity, and respect for others**. These codes are generally considered to be a fundamental part of the engineering profession and are enforced through disciplinary procedures.



- Adherence to professional engineering codes of ethics is not only a legal requirement in many jurisdictions but is also essential for building trust and confidence with clients and the public. Engineers who follow these codes are seen as responsible and trustworthy professionals who prioritize the well-being of the public and the environment.





# Four Professional Engineering Codes

- American Society of Civil Engineers (ASCE)
- The American Society of Mechanical Engineers (ASME)
- The Institute of Electrical and Electronics Engineers (IEEE)
- The Association for Computing Machinery (ACM)





# American Society of Civil Engineers (ASCE)



One of the key activities of ASCE is the development of technical standards, guidelines, and codes of ethics for civil engineers. The ASCE Code of Ethics sets forth the professional obligations and responsibilities of civil engineers, and it is based on four fundamental principles:

- Hold paramount the safety, health, and welfare of the public and the protection of the environment.
- Undertake only work that is consistent with their areas of competence.
- Be truthful and objective in their professional reports, statements, and testimony.
- Avoid conflicts of interest or the appearance of conflicts of interest.

In addition to the Code of Ethics, ASCE also develops technical standards and guidelines related to various areas of civil engineering, such as building codes, design standards, and construction practices.





# The American Society of Mechanical Engineers (ASME)



- The American Society of Mechanical Engineers (ASME) is a professional organization for mechanical engineers in the United States. Founded in 1880, ASME has over 100,000 members worldwide and is dedicated to advancing the engineering profession and promoting the art, science, and practice of mechanical engineering.
- ASME develops technical standards, codes, and guidelines for mechanical engineering professionals in various industries, including manufacturing, energy, transportation, and construction. Some of the most well-known ASME standards and codes include the Boiler and Pressure Vessel Code, which establishes safety requirements for boilers and pressure vessels, and the ASME B31 Code for Pressure Piping, which sets guidelines for the design, installation, and maintenance of pressure piping systems.





# The Institute of Electrical and Electronics Engineers (IEEE)



- IEEE develops technical standards, guidelines, and codes of ethics for electrical and electronics engineers and related professionals. Some of the most well-known IEEE standards include the IEEE 802 series of standards for local area networks (LANs) and the IEEE 1547 standard for interconnection and interoperability of distributed energy resources.
- IEEE also has a Code of Ethics for its members, which sets forth the professional obligations and responsibilities of electrical and electronics engineers. The IEEE Code of Ethics includes principles such as protecting public safety, avoiding conflicts of interest, and respecting the confidentiality of client and employer information.





## The Association for Computing Machinery (ACM)

- ACM develops technical standards, guidelines, and codes of ethics for computer scientists and related professionals. Some of the most well-known ACM standards include the ACM Computing Classification System, which provides a taxonomy of computer science and related fields, and the ACM Code of Ethics and Professional Conduct.
- The ACM Code of Ethics and Professional Conduct sets forth the ethical and professional standards that computer scientists must uphold in their practice. The code includes principles such as respecting the privacy and confidentiality of users' information, avoiding harm to others through the use of computing technology, and maintaining the highest levels of professional competence.







Thank  
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