

Engineering Ethics

by

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Engineering Ethics

Chapter 5

Ethical Issues in Engineering Practice



Engineering Ethics

Chapter Description

- Aims
 - Define the ethical issues in engineering practice.
- Expected Outcomes
 - Determine the potential ethical issues in engineering practice.
- Other related Information



Subtopics

5.1 Environmental Ethics

5.2 Computer Ethics

5.3 Ethics in Research



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5.1 Environmental Ethics

- **Engineers are partly responsible in creating new technology – damage the environment.**
- **Engineers must be aware of their responsibilities in protecting the environment.**
- **Sustainable design & green engineering.**
- **Do not harm the environment.**
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5.1 Environmental Ethics

- **Engineers are partly responsible in creating new technology – damage the environment.**
- **Engineers must be aware of their responsibilities in protecting the environment.**
- **Sustainable design & green engineering.**
- **Do not harm the environment.**
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5.2 Computer Ethics

- **Engineers use computer in their design works.**
- **Subject to copyright issues.**
- **Unauthorized use of information stored on computer.**
- **Proprietary and confidentiality issue.**
- **Confidentiality and Proprietary Information**
- **The use of private information without consent.**
- **Hacking and unauthorized access to the databases.**



5.3 Ethics in Research

- **Honesty – approach to research**
- **Honesty – reporting result.**
- **Engineers must report accurate results.**
- **Never “massage” results to achieve the desired outcome.**
- **Credit to other project team members.**
- **Ensure ethical judgement is practiced.**



References

- **Charles B. Fleddermann. 4th Edition. Engineering Ethics. Prentice Hall 2012.**
- **P. Aarne Vesilind, Alastar S. Gunn. Hold Paramount. The Engineer's Responsibility to Society. Third Edition. Cengage Learning 2016, 2012.**



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