Engineering Ethics

by
Mohd Bijarimi Bin Mat Piah
bijarimi@ump.edu.my

Engineering Ethics

Chapter 2
Engineering Ethics

Engineering Ethics

Chapter Description

- Aims
  - Define what is professional and personal ethics

- Expected Outcomes

  - Differentiate the professional and personal ethics and its relationship

- Other related Information

Engineering Ethics

Subtopics

2.1 Personal versus Professional Ethics

2.2 Ethics and Laws

2.3 Problems in Ethics

Engineering Ethics

2.1 Personal versus Professional Ethics

- **Quite similar but there is a boundary.**
- **Personal ethics – how to treat other daily.**
- **Professional ethics – at organizational level**
- **Involves between corporations/government.**
- **Appears in the professional ethics.**
  (Charles B. Fleddermann, 2012)

Engineering Ethics

2.2 Ethics and Laws

- **Role of law in ethics.**
- **Based on ethical principles.**
- **Clear distinction between ethical and law.**
- **Legal but not ethical.**
- **Illegal does not unethical.**
- **Engineers follow the requirement/ applicable laws.** *(Charles B. Fleddermann, 2012)*

Engineering Ethics

2.3 Problems in Ethics

- **Ethics problem – rarely have a correct answer. Sometimes open-ended.**

- **Engineers design product, structures, processes etc.**

- **Specifications.**

- **Product designs according to the performance, aesthetics and price. More designs but performed identically.**

- **So, in engineering design, no unique correct answer.**

- **((*Charles B. Fleddermann, 2012*)**

Engineering Ethics

Conclusion

- **Engineers need to be guided by their own code ethics.**

- **Professionalism of engineers are demonstrated by their works and ability to adhere to relevant laws and regulations.**

Engineering Ethics

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.**

Engineering Ethics

Authors Information

Credit to the authors:
Ir. Dr Arman Abdullah, Prof. Dr Hayder Bari, Prof. Zulkafli Hassan, Assoc. Prof. Ir Dr Chin Sim Yee, Mohd Zulkifli Mohd Noor, Siti Nooraishah

Engineering Ethics