Chapter 14

Ethics in Engineering Profession: Pedagogy and Practices

Jandhyala N. Murthy
Gokaraju Rangaraju Institute of Engineering and Technology, India

Lavanya C.
Gokaraju Rangaraju Institute of Engineering and Technology, India

Satyanarayana Kosaraju
Gokaraju Rangaraju Institute of Engineering and Technology, India

ABSTRACT

Engineering as a profession distinguishes itself by having and enforcing a code of ethics. Aberrations can lead to commercial considerations to dominate converting the profession into a business rather than promoting safety, health, and welfare of public and environment. Engineers, in their professional quest for an optimal solution, are forced into a dilemma due to clash of values or interests. The explosion of data and its usage is bringing in a lot of concern due to proliferation of unethical practices. Moral values and personal ethics at one end and professional and social ethics at the other end of the spectrum are of points of discussion in academics as well as in society. Engineering programmes strive to offer engineering ethics and professionalism either through direct courses or through embedded capsules in appropriate courses. Promotion of ethics integrating into the engineering profession at all levels could lead to a holistic alternative at universal level, which is self-satisfying, people-friendly, and eco-friendly.

DOI: 10.4018/978-1-7998-2245-5.ch014

Copyright © 2020, IGI Global. Copying or distributing in print or electronic forms without written permission of IGI Global is prohibited.
Ethics in Engineering Profession

INTRODUCTION

Wealth without Work,
Pleasure without Conscience,
Knowledge without Character,
Commerce (Business) without Morality (Ethics),
Science without Humanity,
Religion without Sacrifice,
Politics without Principles
- The Seven Social Sins – Mahatma Gandhi

Ms Senior has entered into her final semester of BTech Computer Science Engineering. She is required to complete her final year major project by March of that year. She had competitive examinations like GATE in the month of February and booked a slot for GRE and TOEFEL in the month of March. As preparation for competitive examinations are in the way of project submission, she was tempted to purchase a project in the open market and submit it as her own. Is she right in her actions and what measures to be taken to curtail such ethical aberrations called plagiarism?

Mr Starter, soon after graduation, joined a start up company manufacturing airworthy washers. He was asked by his supervisor to file a tender before the closing hours of the day as it was the last date. He managed to reach the office just half an hour before closing time. For accepting tender, the official wanted his hand to be greased, which is against the personal ethics of Mr Starter. What should he do leave values or lose tender participation chance?

A young engineer, Mr Shuru, started his career working in Heat Treatment Shop in a car manufacturing company. One day his supervisor asked him to dump some life expired toxic chemical into the drainage. Mr Shuru felt it was against public interest as there are chances of getting into storm water drain contaminating the ground water as well as near by lake. He expressed the same to his supervisor, who bullied him stating that “you better do what I tell you. I have been here for a number of years, I know what is right. The amount of chemical is very little, it will soon get diluted in storm water before it reached lake. Even if few fish die, so what? Mr Shuru hesitated, but the boss continued “you better do what I tell you or look for another job?”. What should Mr Shuru do?
Related Content

Differentiation Challenges in Inner City School
[www.igi-global.com/chapter/differentiation-challenges-in-inner-city-school/182386?camid=4v1a](www.igi-global.com/chapter/differentiation-challenges-in-inner-city-school/182386?camid=4v1a)

Collaborating Online: A Logic Model of Online Collaborative Group Work for Adult Learners
[www.igi-global.com/article/collaborating-online/127037?camid=4v1a](www.igi-global.com/article/collaborating-online/127037?camid=4v1a)

Plotting a Learning Experience
[www.igi-global.com/chapter/plotting-learning-experience/22090?camid=4v1a](www.igi-global.com/chapter/plotting-learning-experience/22090?camid=4v1a)
Acculturation Stress and Its Reflections in Terms of Social Inequality
Kasm Karata and Mustafa Baloglu (2019). *Handbook of Research on Social Inequality and Education* (pp. 348-365).