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Report 3 - Ethical Case Study

-Fall 2021-

Course: EE499

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1. Introduction

Engineers face situations they must choose between right and wrong. But sometimes it’s not very clear-cut and it’s hard to discern between the choices. There are three main things that affect the decisions of engineers: Morals, Ethics, Law. Morals are usually internal, and they differ from a person to another. Ethics and laws usually come from the external world. Laws are set by governments and ethics are usually set by professional societies of each profession. In this report the focus will be mainly on ethics.

1. Saudi Code of Ethics

According to the **Saudi code of ethics** an engineer shall follow these six general laws:

**Rule One:** “Every engineer should build her/his professional reputation based on efficiency and proficiency of her/his services, and away from unfair competition with others.”

**Rule Two:** “Every engineer should seek to develop her/his personal abilities and efficiency and should also provide professional development opportunities for engineers and technicians working under his supervision.”

**Rule Three:** “Every engineer should be committed to promoting the fundamental values and principles of the ethics of the engineering profession and should plant them within society. Regarding her/his conduct, every engineer should be s in ways that support and enhance the prestige and dignity of the profession and the secretariat of the locally and globally.”

**Rule Four:** “Regarding professional issues, every engineer shall act as a careful agent to the employer and shall avoid any conflict of interests.”

**Rule Five:** “When submitting her/his ideas, views and decisions, every engineer should be keen to be objective and honest and confined to her/his field of expertise and professional experience.”

**Rule Six:** “When providing professional services, every engineer seeks to apply the highest standards of safety and environmental protection in order to achieve the public interest of individuals and society.”[1]

1. Case Study
   1. Engineering Dilemma

**Fahad** is a clinical engineer working in a hospital in Saudi Arabia. The hospital has a rule that if anybody makes a mistake or even almost made a mistake, they should report it themselves and they would be treated more leniently. The hospital also has a system that automatically uploads ECG recordings to the hospital information system allowing the doctors to view them easily. A doctor requested from the nurse to take an ECG recording for one of the patients **Saeed**. After a few hours Saeed passed away due to a heart disease that would have been treatable if caught early but the doctor never received the ECG recording. At first, the administration thought that the nurse didn’t take an ECG recording and she was at fault. However, **Fahad** investigated the ECG device and found out that the CMOS battery has failed, and the date and time reset causing the ECG recording to appear in the system as something that was recorded years prior.

* 1. Case Analysis

In this case **Fahad** needs to decide, whether to report the device problem and prevent that mistake from happening again or to stay silent and the nurse might be wrongfully punished. People lives are at stake and **Fahad** needs to choose the ethical decision. These are the possible scenarios:

**1. Fahad does nothing:** Fahad could stay silent and not report the problem with the CMOS battery. Which would endanger lives because that failure could happen again, and another person might be harmed because of the same mistake. In addition to that the nurse might be wrongfully punished. This decision would be unethical and Fahad wouldn’t be acting in compliance with **Rule Six:** “When providing professional services, every engineer seeks to apply the highest standards of safety and environmental protection in order to achieve the public interest of individuals and society.”[1]

**2. Fahad fixes the device but doesn’t report:** Fahad could also fix the ECG device but doesn’t report the problem to the administration. This would be a band aid solution that only temporarily solve the problem but doesn’t resolve the underlying issue that the CMOS batteries need to be replaced periodically. Although this is marginally better than the first scenario this still violates **Rule Six**

**3. Fahad fixes the device and reports the problem:** This would be the best solution; Fahad fixes the device and also reports the problem to administration so that they can come up with a preventive plan to stop this from happening again.

1. Final Ethical Discussion

Based on the rules of the Saudi code of ethics, **scenario 3** would be the best one. Because Fahad would be helping in achieving what is best for the patients and their safety.

1. References

[1] “Engineer Agreement.” https://www.saudieng.sa/English/EngineerCorner/Pages/CharterEngineer.aspx (accessed Oct. 05, 2020).