**بسم الله الرحمن الرحيم**

King Abdulaziz University - Faculty of Engineering – EE-499

**Senior Design Project**

**Report#3**

Ethical Case Study

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# Saudi Council Code of Ethics

The engineering profession and the services provided by engineers depends significantly on the progress of civilization and the protection and harnessing of natural resources to serve the community and increase the standard of living. Thus, it becomes necessary for engineers to provide their professional services according to ethical standards and rules observing honesty, truthfulness and perfection.

Since the Saudi Council of Engineers is concerned with and aims to promote the profession of engineering and all that would develop and raise the level of the profession and its practitioners under its law promulgated by the Royal Decree No. 36 on 26/09/1423H, and since its vision is to "sophisticate the profession of engineering and enable engineers and institutions of engineering to reach optimal solutions, to improve performance level, and to encourage creativity and innovation to achieve a prestigious international position," the Council has opined to present these rules to engineers and technicians in various positions to serve as professional rules determining proper professional dealing among themselves and with others to serve society.

Since justice, integrity, honesty, truthfulness, keeping one's word, never exposing secrets, mutual advice, mastery of work, and getting away from hurting others are in their entirety the morals and values advocated by Islam that urges to stick to them and to abide by applying them in everyday life, the Saudi Council of Engineers has taken into account these foundations, principles and values when preparing the rules and ethics governing the practice of the profession. Thus, all engineers should abide by these rules in all their professional practices in accordance with the Engineer Agreement signed in this regard. The General Rules of the Saudi Council Code of Ethics (Code of Ethics, 2021):

**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.

# Introduction

Every engineer could be in a position where a decision must be taken. The different possible decision could have some ethics violations, an engineer must consider the different scenarios and choose the best ethical decision based on the used code of ethics. In this report we will discuss an engineering dilemma with some different possible scenarios, discussing the potential consequences of each scenario and taking the best decision for this engineering dilemma.

# Engineering Dilemma

Mohammad works as an industrial engineer in a construction company. The company has a constructional project, where the company decided to find a local contractor. The company formed a team to receive the bids and study the different bid offers. Mohammad was requested to lead the team. However, Mohammad's friend Ahmad who works on the same department with Muhammad and who was not selected in the team hinted to Muhammad that he wants to know the bids details. However, Mohammad ignored those hints until Ahmad asked him directly about the bids details so he can leak it to his brother who works as a contractor in the construction field. Now, Mohammad is in a position where he has to take an action, there are different possible scenarios for the actions Mohammad could take, we will discuss each possible scenario and its possible consequences, there are three main points could affect Mohammad's decision we will consider them in each scenario:

1. Mohammad and Ahmad are friends for more than 10 years.
2. Mohammad knows the details of each bid, as he leads the responsible team.
3. Mohammad is a professional engineer known for years with his integrity
4. Ahmad is pushing Mohammad seriously to give the details of the bids and threaten to end their friendship
5. Ahmad offered to share some of the profit with Mohammad if his brother won the tender

# Discussion

Muhammad now is in a difficult situation where he has to decide what to do. He could be in the safe side and take an ethical decision sacrificing his ten tears friendship with Ahmed. Or he could take an unethical decision so save that friendship and to profit from the wining contractor. For this we will discuss some different scenarios Mohammad could take and which rule is violated in each.

## First Scenario

In the first scenario Mohammad could just simply leak the details to Ahmad to save their friendship and also to get the promised profit if Ahmad's brother won the tender. Although this could be an easy decision to take but however, the consequences for this decision are more harmful. This scenario includes a conflict of interest as rule four (4.7) states, Mohammad seeks to get a profit by helping one contractor instead of aiming to choose the best bid for the good of the company. Also Leaking the bids details considered a violation of rule four (4.2) as Ahmad requested the bids details which is considered confidential information and disclosing such information without an approval is considered a violation. Another violation is clearly illustrated by the profit received in case Ahmad's brother won the tender, this is a clear violation of the rule four (4.8). Although Mohammad could save his friendship with Ahmad and get some profit but the consequences of violating the previous rules are unneglectable.

## Second Scenario

Mohammad could be afraid of leaking such confidential information, so he decides to create a position in the team to include Ahmad in the responsible team, and then Ahmad will get the details himself as he as now a member of the team and leak the bids details to his brother, so both could be happy as Mohammad saved their friendship, and Ahmad helped his brother to win the tender. However, included Ahmad in the team for that purpose is considered a violation of rule four (4.3) as Ahmad was include not for his good performance but for another purpose, while there could another engineer who deserves this position more than Ahamad. Also, this behavior violates rule three (3.5) as Mohammad participated to cover up the leaking action done by Ahmad.

## Third Scenario

In the third scenario, Mohammad could just refuse to disclose such information but, to satisfy Ahmad's need he will try affect his team judgment by underrating other bids and recommend the offer coming from Ahmad's brother. As these judgment and discussions Mohamad uses to convince his team members are not scientific and based on personal interests. Then this is a clear violation of rule five (5.1) as the decision making was based on satisfying Ahmad's need to make his brother bid the one accepted by the company instead of selecting the best bid based on the engineering fundamentals.

## Fourth Scenario

One Scenario happens if Mohammad immediately refused Ahmad offer, and reported that to the responsible department so they can take any required actions to save the future of the company. Although this decision may lead to ending a friendship that lasted for more than ten years, but it is an ethical decision and the most recommended action As there is a commitment to the code of ethics, and to our Islamic learnings. On the other hand, Mohammad and Ahmad relation as friends could be affected as Ahmad threaten. But however, this could not be as harmful as Mohammad losing his integrity and ethics in order to satisfy Ahmad needs in each time.

# Ethical Discussion

As we have seen, the fourth scenario could be the best scenario to have as Mohammad will not make any unethical decision that could harm him or anyone else. However, in many cases it could be difficult to choose from the different possible actions. As in this case, the friendship was a ten years old friendship which could be difficult to sacrifice, but if we considered the other options, their consequences are more harmful than ignoring Ahmad needs and reporting it to the responsible department. But however, if Mohammad chose an unethical behavior just to save their friendship, then in addition to the ethical violation, he saved himself from having a poisonous friendship.

# Conclusion

In this report, we have discussed a study case where an engineer has to make a decision, the different decision the engineer takes have different consequences some could be more ethical than other, and some may harm the engineer career and the society, and we consider them as unethical decisions. We also discussed the possible scenarios for the case study, and considered the best available decision where no ethical violation occurred.

# References

*Code of Ethics*. (2021). Retrieved from Saudi Council of Engineering: https://www.saudieng.sa/English/EngineerCorner/Pages/CharterEngineer.aspx