Tentative Final Project 2024

Group Name : _____

Members

1. _____ **ID** _____ **Room** ____
2. _____ **ID** _____ **Room** ____
3. _____ **ID** _____ **Room** ____
4. _____ **ID** _____ **Room** ____
5. _____ **ID** _____ **Room** ____

TA#1 : _____ **TA#2** : _____ **TA#3** : _____

Possible Topic : _____

Inquiry Knowledge/Content

_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____

Draft Idea & Design

Project Planning

17.8 STEPS IN THE ENGINEERING DESIGN PROCESS

A systematic approach to engineering design that uses the elements of the Design for Six Sigma philosophy may be viewed as consisting of eight steps:

1. **Define the problem.**
2. **Generate alternative concepts.**
3. **Evaluate and select a concept.**
4. **Detail the design.**
5. **Design defense.**
6. **Manufacture and test.**
7. **Evaluate performance.**
8. **Prepare the final design report.**

These steps are shown in Figure 17.1.

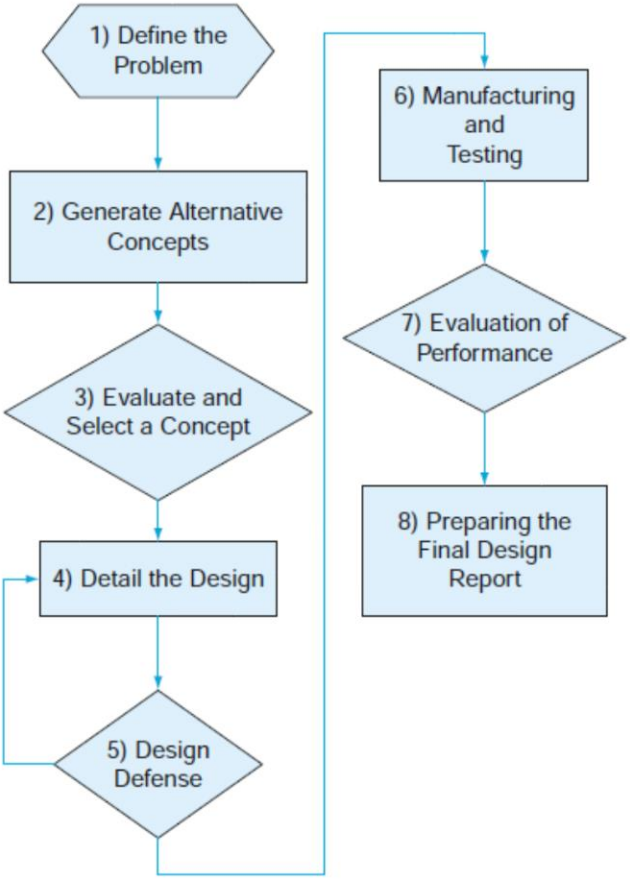

FIGURE 17.1 Design Process Flowchart

The next chapter presents two ground rules for engineering design. Subsequent chapters will treat each of the preceding eight steps in detail. At the end of each chapter there is a suggested milestone for successful completion of the step in the design process described in the chapter. Milestones are crucial for measuring progress toward the eventual goal of a successful design. After the eight steps have been described, this portion of the book concludes with a detailed example of an actual design competition.