



## **BAHRIA UNIVERSITY (KARACHI CAMPUS)**

### **Software Project Management (SEN-410)**

#### **ASSIGNMENT # 3 – Fall 2024**

#### **Complex Engineering Problem (CEP)**

#### **Based on: CLO-4**

Class: **BSE-7A/B**

Submission Deadline: **24<sup>th</sup> Dec 24**

Course Instructor: **ENGR. MAJID KALEEM**

Max Marks: **06**

This assignment is based on the following CEP attributes:

- a) Cannot be resolved without **in-depth engineering knowledge**.
- b) Involve **“conflicting”** technical, engineering, and other issues.
- c) Have **no obvious solution** and require abstract thinking and originality in analysis to formulate suitable models.

A complex engineering problem refers to a challenge or issue in the field of engineering that is intricate, and multifaceted, and often requires a sophisticated understanding of various technical, scientific, and practical aspects. These problems are characterized by their intricacy, involving multiple variables, uncertainties, and interdependencies. Solving complex engineering problems often requires a holistic approach, drawing on knowledge from different engineering disciplines and considering various constraints.

**CLO-4: “Prepare a comprehensive project management plan to initiate and manage a project”.**

#### **Task:**

Suppose you have to undertake your FYP and your FYP Coordinator/supervisor has advised you to take up an FYP like PEC's proposed FYP. You decide to go ahead with these kinds of FYPs in which some of the areas are unfamiliar to you (e.g., technology, methodology, etc.). In this task, you must prepare a comprehensive project management plan to initiate and manage these kinds of projects that involve conflicting technical, engineering, and other issues, have no obvious solution, and apply your extensive engineering knowledge gained during the past 6 semesters. Mention all possible *problems* and provide *solutions*. To prepare your project management plan, use the IEEE or FYP Coordinators' provided template.

### **What is required?**

1. This is a group assignment and all group members must belong to the same FYP group. In case you are doing it alone, complete this assignment alone.
2. Present your work to the class as a group/alone and each member of the group must upload the project management plan on LMS individually/separately.

Good Luck!