### **1.1 Initial Project Proposal Report (A4a)**

Your initial project proposal should be **two to three pages maximum** and will be graded on **presentation quality** (i.e., well formatted), as well as **clarity** and **conciseness**. The report should follow a **single-column format**, **single-spaced**, with **titles and subtitles** for sections, and include a **cover page**.

#### **Body of the Project Proposal:**

1. **Concise Summary of Project Goals**:
   * Provide a brief and clear summary of your project’s objectives.
2. **Background (Optional)**:
   * If you are continuing from a previous capstone or if providing background will clarify the rest of the proposal, include this section.
3. **Potential Contributions and Advantages**:
   * Discuss how your work contributes to recent technological advances.
   * Explain why this is a **challenging** question that warrants a capstone project.
   * Justify its importance to the field (e.g., why existing off-the-shelf software or devices can’t solve this problem).
   * Provide a **compelling description** of the **challenges** behind the proposed work, ensuring the **importance and challenges** are related to an **accurate portrayal of the current state-of-the-art**.
   * For design projects, describe why this work is important for your group, company, or advisor.
4. **Broader Impacts**:
   * Describe the broader benefits of your project to the **community**, **environment**, and **society** if successful.
   * Ensure that the proposal is **well-related to the current state-of-the-art**, describing how the project’s completion will benefit its **field of study** or **project design company/advisor**. The **ramifications** of the work should be well understood and presented.
5. **Approach and Methodology**:
   * Outline the **strategy and methods** you will use to accomplish the project by the end of the course.
   * Provide a **well-reasoned and described strategy** for successful project completion.
   * Mention **third-party software/boards**, **open-source software**, and **appropriate related algorithms** that will be utilized.

### **Feedback and Review:**

This initial proposal will provide valuable feedback from your instructor and classmates during the proposal review classes.

### **Grading and Evaluation:**

Professional presentation and proper formatting are critical and will be part of your grade. The following rubric (Table-1) will be used by your instructor and peers to evaluate your proposal and presentation. Your grade will be the sum of your scores for each area, divided by the maximum possible score.