CAT404 - Software Engineering Major Project
Initial Proposal Outline
School of Computer Sciences, USM Academic
Session: 2023/2024

Template
Kindly refer to initial proposal template. This template should be utilized to prepare the CAT404 initial proposal.

Cover Page
The title of the proposal should include the following information:
- Project title.
- Project category – Software Engineering
- Student's and supervisor's name and information.

Outline
The initial project proposal is a short report that includes at least the following sections:

1. Project background.
   - Describe general background of the project environment (e.g., people, place, process & problem).
2. Problem statements.
   - Specific statement of the problems exists based on the project background as described above.
3. Motivation.
   - Describe in detail what stimulate student to propose the project.
4. System Objectives. (State in point form)
5. Proposed solutions.
   - Describe the proposed solution.
   - State Software Engineering method/process/approach to be used in the proposed solution.
6. Benefit or impact or significance of the proposed solutions.
7. Uniqueness of the proposed solutions.
   - Identify either the proposed solution is innovation or novelty.
   - Innovation means generally refers to the creation of better or more effective products, processes, technologies, or ideas. Innovation generally signifies a substantial positive change compared to incremental changes.

- Novelty means patentability which is a unique invention regarding process, product, or idea. (New idea or proposed solution)

8. Expected outcomes of the proposed solution. (State in point form)

   - What is expected outcomes?

9. Status of the project.

   - Describe the project whether it is a new project, a continuation, or an enhancement of an existing project.

   - New project means that the proposed solution is totally a new project which is never developing previously.

   - Continuation means that the project is already in existence, and you should extend the project scope.

   - Enhancement means that the project is already in existence and completed but you must improve the performance of the system such as improving the functionality, processing efficiency, enhancing algorithms, databases, etc.

10. SDG alignment. State which SDG goal from the 17 SDG goals, you wish to achieve based on your proposed project or solution.

11. References.

    - List down all the references from books, journals, proceedings, websites, manual etc.

    - Recommended reference style: APA or Harvard or IEEE.

12. An appendix, giving a time plan that covers both the key elements of the practical work, preparing any deliverables for the implementing and writing the interim report. This plan should include the following components:

    - Milestones and deliverables associated with each task which contains one-page time plan (e.g., Gantt chart) detailing tasks outlined above.