EEE4113F

Report Deliverables

Housekeeping

Housekeeping

- Orders are in and should be delivered next week
- 3D Printing – 22 April onwards (Through Ryan)
- **Laser cut boxes, don't 3D print them**
- Hardware store – 26 April (Buco Obs)

Deliverables

- We are busy with the **systems engineering** section.

- The following deliverables are required:
  - Break entire solution into subsystems, one for each person in the group
  - Meet weekly deliverables for the individual sections of the report
  - A completed engineering report is required at the end of the course
  - A group presentation is required at the end of the course
  - **Submissions will be done via Amathuba and are required for DP purposes**

  - **No more than 45 pages total (exc. appendix)**
  - **No more than 12 pages per subsystem**

  - **NOTE: INDIVIDUAL SECTIONS ARE MARKED INDIVIDUALLY AND DO NOT AFFECT THE GROUP MARK**

Report Overview and Layout

Report Outline

- Front Page
- Table of Contents
- List of Figures
- Introduction (1-2 pages)
- Problem Analysis (1 page)
- Literature Review (6-12 pages)
- System Overview (max 36 pages)
  - Subsystem 1 (8-12 pages)
  - Subsystem 2 (8-12 pages)
  - Subsystem 3 (8-12 pages)
- Conclusions (1 page)
- Appendix
- Evidence of GAs per Student

Report Outline

Front Page

Title

Group Number

Group Members' Names and Subsystems

Date

Plagiarism Declaration

Signed by each group member

Table of Contents

List of Figures

Report Outline

1. Introduction (GROUP WORK)

Provide a background to the project, like a movie trailer, set the scene – what is the problem, provide some history, what is the proposed solution, what are the benefits of the solution etc.

2. Problem Analysis (D-SCHOOL GROUP WORK)

a) Detail the D-school initiated activities
b) Design choices
c) Choosing one (or fusing multiple into one)
d) Brief description (one or two lines) of each subsystem

3. Literature Review (GROUP WORK)

See slides on literature review

Report Outline

4 – 7. Subsystem Chapters (INDIVIDUAL WORK)

These chapters need to be done individually. The chapter names need to align with the submodules and the **author STUDENT NUMBER needs to be made clear. MARKS WILL BE LOST IF INSTRUCTIONS NOT FOLLOWED.**

4. – 7. Subsystem Chapters CONT. (INDIVIDUAL WORK)

a) Subsystem introduction

b) User requirements
   - Traceability Matrix

c) Requirement analysis

d) Design choices
   a) Discuss at least two ways to solve / meet the requirements
   b) Compare them and select the most appropriate solution
      - Possible figures of merit to consider: Cost, technical maturity, ease of manufacturing, implementation, ease of testing, reliability and maintenance costs.

e) Submodule Design
   a) Simulate one or more submodules
   b) Optimise and/or complete some form of sensitivity analysis if applicable

Report Outline

8. Conclusions (GROUP WORK)

This includes things like future plans, timelines etc.

A.1. Appendix

Include any extra documentation that may be useful to reference but not critical to the report.

B.1. Evidence of GAs Met for Each Student (INDIVIDUAL WORK)

As stated at the start of the course, the GAs are:

- **GA 3:** Engineering Design
- **GA 7:** Sustainability and Impact of Engineering Activity
- **GA 8:** Individual, Team and Multidisciplinary Working
- **GA 10:** Engineering Professionalism

Thank You