Individual Project Report

Submit Assignment

Due 6 Sep by 23:59   **Points** 100   **Submitting** a file upload   **File types** doc, docx, m, and pdf

Available 29 Jun at 0:01 - 4 Oct at 23:59 3 months

Course code and name: OENG1207 Digital Fundamentals

Length: Maximum 8 pages

Type: Individual task - Written

Feedback mode: Written comments

Late work: 10% for every day, 100% after 3 days submission.

Weight : 20%

Learning Objectives Assessed

1.1 Comprehensive, theory based understanding of the underpinning natural and physical sciences and the engineering fundamentals applicable to the engineering discipline.

1.2 Conceptual understanding of the, mathematics, numerical analysis, statistics, and computer and information sciences which underpin the engineering discipline.

1.3 In-depth understanding of specialist bodies of knowledge within the engineering discipline.

2.1 Application of established engineering methods to complex engineering problem solving.

2.2 Fluent application of engineering techniques, tools and resources.

Ready for Life and Work

- This course is focused on digital literacy for engineers and will equip the students with the ability to apply a problem-solving methodology to common engineering problems.
- Using a problem-based approach, students will develop the skills to design, write, test and debug programs that improve the world we live in.
- This course establishes a foundation for engineering programs that require advanced programming and problem-solving skills which are also necessary skills for an Electrical & Electronic, Computer & Network or Mechatronic & Robotics and Software engineer.

Assessment Details

The Individual Project for this course is about the incremental development of a unit-conversion project in MATLAB and is broken in two main components :

1. Individual Project Milestones Report (due by end of week 6)
2. **Individual Project Report (due by end of week 10)**

Support Resources

This assessment requires that you meet RMIT's expectations for academic integrity. More information and advice on how to avoid plagiarism are available in the Getting Started module.

Open the academic integrity page.

Additional library and learning resources are available to help with the assessment in this course

Link to Assignment Support.

Submission Instruction

Your final submission should contain the final product for the project and include the following:

- **MATLAB files** showing the final product. Again this will include your **main GUI file (.mlapp file)** and your **user-defined functions (.m files)**. All user-defined functions must be submitted as .m files, protected function files will not be accepted.
- A more detailed **report** outlining the following:

Please read the specification below and use the provided template:

Individual Project Report Specifications: **Individual Project Report Specifications.pdf** 📄

Individual Project Report (Final) Template: **Individual Final_Project_Report_Template.docx** 📄

Rubric

Please see rubric below.

Practicals

Criteria	Ratings					Pts
Problem Solving Methodology	**50.0 to >40.0 Pts** **High Distinction** A thorough plan has been presented with excellent use of evidence to back up chosen software/ algorithm design. Excellent understanding of the nature of the problem.	**40.0 to >35.0 Pts** **Distinction** Problem-solving methodology is adequate and backed up by evidence. Problem statement shows a good understanding of the nature of the problem.	**35.0 to >30.0 Pts** **Credit** Problem-solving methodology has been presented but may be lacking some details. Problem statement may not be clearly stated.	**30.0 to >25.0 Pts** **Pass** Most of the problem-solving methodology has been addressed in a generally superficial way. Students' understanding of the problem may not be clear.	**25.0 to >0 Pts** **Fail** Students have presented little to no evidence of the problem-solving steps taken to produce a solution or the problem-solving steps contained serious fundamental flaws.	50.0 pts
Solution and Testing	**50.0 to >40.0 Pts** **High Distinction** An excellent solution has been presented with evidence of a wide range of testing with relevant input data. Extra functionality may have been implemented where appropriate (e.g. user interface). A clear link has been shown between the solution and the problem statement and design.	**40.0 to >35.0 Pts** **Distinction** A good solution has been presented with evidence of testing with a variety of inputs. Minimum requirements have been presented to successfully fulfill specifications (no extra functionality present). Links are shown between the results/solution and the problem statement.	**35.0 to >30.0 Pts** **Credit** An adequate solution has been presented with superficial links made to the problem statement and design methodology. Some testing has been performed with a very limited set of inputs.	**30.0 to >25.0 Pts** **Pass** A solution has been presented but there is little to no evidence of testing. The solution may contain some errors but generally fulfills the requirements of the task.	**25.0 to >0 Pts** **Fail** No solution presented, or the solution has serious, fundamental flaws. The solution does not fulfill the specific requirements outlined in the specifications for the task.	50.0 pts
					Total points: 100.0	