TSM_EmbHardw
Grading Part II

Introduction

The students can chose to complete either a term-time project worth 20% of the final grade **or** complete an end-of-term exam on the last day of the module, worth 20% of the final grade **or** elect to sit the final exam for 100% of the final grade.

End of Term Exam

The End-of-Term exam is one hour long and will be held at 15:00 on the day of the final lecture. The exam will consist of three questions. Two of these questions will be on specific material covered in the course and the third question will consist of some short questions.

Projects

The projects will be reviewed on the final day of the module beginning at 13:00. There are four possible projects. It is possible to work in pairs but additional work, specifically in the area of test and verification, must be done.

Project Deliverables:

Short report in power point with the following issues

> **Analysis**
>> Analyse the performance of the system
>
> **Estimation**
>> Estimate the performance improvement by applying a particular technique
>
> **Implementation**
>> Describe the implementation of the technique.
>
> **Characterisation**
>> Characterise the implementation explain if results don't match the estimations.
>
> **Future work**
>> What would be the next steps to improve performance?

Projects:

> **Project 1:**
>> Optimise the hardware transfer and any necessary processing, of data through the FPGA.
>
> **Project 2:**
>> Optimisation of the processing time using cache and/or scratchpad memory.
>> Optimisation of processing time using compiler optimisations and/or algorithmic optimisations
>
> **Project 3:**
>> Optimisation of processing time using custom instruction or and additional functional unit(s).
>
> **Project 4:**
>> Implement a test and measurement framework for an optimising process.