Project Workshop #5, Week 19
Project Paper & Oral Exam

William K. Moses Jr. (Billy)

william.k.moses-jr@durham.ac.uk

2024/25

Project Breakdown

The marks for COMP3012 are broken down as follows:

- Presentation (in December) - 10%
- Demonstration (in Week 16) - 10%
- Project Report (1st May 2025) - 50%
- Project Oral (5th - 9th May 2025) - 25%
- Supervisor Mark - 5%

Outline of Section

- Talk about general guidance for the project paper
  - General info
  - How to approach writing it
  - On writing
  - Some final notes
- Talk about the specific parts of the project paper
  - Abstract
  - Introduction
  - Related Work
  - Methodology
  - Results
  - Evaluation
  - Conclusion

Outline of Section

- Talk about general guidance for the project paper
  - General info
  - How to approach writing it
  - On writing
  - Some final notes
- Talk about the specific parts of the project paper
  - Abstract
  - Introduction
  - Related Work
  - Methodology
  - Results
  - Evaluation
  - Conclusion

General Information

- Format: **follow the templates**; one for Word, one for LaTeX. These are both already available on Ultra.
- Please do not change the layout.
- Read the information in the template before you start.
- **Rationale:** It is harder to write a short paper than a long dissertation (where you can just include everything). Learn to communicate precisely with good concise writing.Same as academic journal vs conference proceedings (when we submit to conferences then there's a limit of, say, 12 pages).

General Information

- **16 page limit is strict**. This includes titles, diagrams etc. **but does not include references**.
- You may include appendices at the end of your report (after the references) and these do not count to the page limit. They will not be marked, but can be referenced in your report. E.g "See Appendix 1".
- **The section headings provided in the templates must be used**. Section lengths are only a guide. Subsection headings can be created as desired.
- The marking criteria used by staff uses the section headings. See it on Ultra. Make sure someone not familiar with your work (2nd examiner) is able to understand how you address the marking criteria.

Approach

- Not a mystery novel: say at the start what you concluded.
- And that means not just what you did, but what is the scientific contribution of your project.

  Don't do this:

  We built METAFOO.

  Instead, do this:

  We demonstrate that by a careful decomposition of cycle-accurate simulation logic from power modelling, we can achieve greater accuracy while scaling to large numbers of nodes.
- Remember to identify your research question and then refer to it as relevant throughout the report.

Writing

- **Past tense** for what you did.
- **Present tense** for things in the paper (“Figure 3 shows . . .”)
- Avoid first person singular.
- Send drafts to your supervisor in good time (may not be available over Easter).

Notes

- There are some old example papers available on Ultra.
- **Important:** No two projects are (should be) the same, and the same goes for papers.
- Generic questions like “what should I write in Section XXX” are meaningless to someone who isn’t deep in the project.
- When in doubt, ask your supervisor.
- . . . but in the end, it’s **your** project and **your** paper.

Outline of Section

- Talk about general guidance for the project paper
  - General info
  - How to approach writing it
  - On writing
  - Some final notes
- Talk about the specific parts of the project paper
  - Abstract
  - Introduction
  - Related Work
  - Methodology
  - Results
  - Evaluation
  - Conclusion

Abstract

- Self contained summary of the paper.
- Designed to be read without the main paper.
- The reader can then decide whether to read the whole paper.
- You may use either a structured or unstructured abstract. If you want to use a structured abstract you may find these headings useful: Context, Aims, Method, Results, Conclusions.

Introduction

- Why what you are doing is important.
- Explain the background.
- Highlight your contribution.
- Discuss your deliverables.
- Introduce your work.
- The Research Question!

Related Work

- Use appropriate parts of your literature survey from earlier in the year.
- Relate to your work.
- Provide a narrative, not a list.
- Do not repeat standard book work unless you rely on it later.
- Consistent citation style (as described in the template).

Methodology

- Structure and content are **very** project-dependent.
- Some suggestions:
  - Discuss the design of your solution.
  - Outline any implementation issues and design choices.
  - Describe the tools you've used and why.
  - Discuss issues around testing and development.

Results

- Structure and content are **very** project-dependent.
- Rule of thumb:
  - Does it work?
  - Some measurable outcomes where appropriate.
  - Tables, charts, graphs, example outputs, questionnaire data etc.

Evaluation

- Structure and content are **very** project-dependent.
- Rule of thumb:
  - How **well** does it work?
  - Does it do what you wanted it to do?
  - Answer the Research Question.
  - How well did **you** do?
  - Did the plans pan out?

Conclusion

- Likely to involve repetition from earlier.
- The reader should be left in no doubt about the following:
  - What your findings are.
  - What contribution the research makes.
- A conclusion might elaborate on the importance of the work and suggest further applications and extensions.

Outline of Section

- General info
- What to do prior to the exam
- The exam itself
  - Overview
  - Demonstration
  - Questions
- Assessment
- Do's and Don'ts

General Info - Organization of Exam

- You will be examined by your supervisor and one other member of academic staff.
- The oral exam takes place between the submission of the final paper and the exam period.
- The exam takes at most 30 minutes.
- You should assume Examiners have **NOT** have read the final paper (although later the paper will be assessed by the same two examiners) .
- Your supervisor will allocate a time and place for your project oral; **please act immediately if this is not appropriate**.

General Info - Outline of What You Should Do

- Introduce your project by referring to your slides or other material.
  - Give an overview of what you aimed to do and what you have achieved.
- Demonstrate your implementation/discuss your theoretical results.
- Answer the examiners' questions.

Before the Exam

- You should send a copy of your deliverables to each examiner (agreed in advance with your supervisor).
  - Such as list of deliverables, functional/non-functional requirements.
  - Not a printout of code.
- You will likely want to prepare a set of slides to present and discuss at the exam.

Exam - Overview

- Do not assume that your examiners know your project — start with the basics.
  - Ask for confirmation that they are following what you are saying.
- Use appropriate media to support what you are saying.
  - You likely have a few slides, or you could have a handout for the examiners to consult.
- Plan and practice.
- Aim to spend a **maximum** of 10 minutes introducing the project.
- To do well — state the purpose clearly; what are the goals and objectives; be organised; logical sequence; good visual aids.

Exam - Demonstration

- Should follow naturally from the overview.
- Theory work - discuss theoretical results/ Software - demonstrate implementation.
- If your work includes both theory & software, do both.
- Examiners may ask to interact with your implementation themselves **but** you should have a demonstration prepared that shows off all the important functionalities.
- Create “toy” examples if necessary.
- Have backups for anything you want to demonstrate. If you need to access a server to run something, what happens if the server is down when presenting? Prepare a video recording of what you want to illustrate as a backup.
- Practice in advance.

Exam - Questions

- Expect a range of questions from fact-based technical ones to wider implications of the work.
- Staff will not be trying to trick you — but will aim to test your depth of understanding and thinking.
- Think about questions before answering — rushed answers might be irrelevant or worse.
- It is perfectly ok to say you do not understand a question, and to ask the examiners to rephrase it.
- Answer clearly.
- Suggest a way to attack an issue even if you don't have an answer; show that you can think on your feet.

Exam - Examples of Questions

- Why did you (not) choose technique X?
- What was the most useful thing you read?
- How did you evaluate feature Y?
- What was the most difficult or most interesting part of the work?
- What would you do differently in a second attempt?
- How would you extend the project if you had more time?
- Why is this of interest to the research community in area X?
- Why is your project of wider interest?
- Which part did you like best/least?

Assessment

- You **must** demonstrate your implementation or discuss your theoretical results.
  - This is the only time that the full implementation will be directly assessed.
- The marks awarded for the Oral Exam are worth **25** per cent of the total module mark:
  - 75 per cent is for the quality of content and results.
  - 25 per cent for presentation skills – how well you perform in the Exam.
- The marking criteria and guidance can be found on Ultra. Make sure to go through it.

Do's and Don'ts

- Do make sure you are prepared.
- Do have an example or test case ready for the demonstration that you know works.
- Do practice your timings.
- Don't spend too long on the overview else the examiners will ask you to stop and start the demonstration. Not only will you be judged to have prepared poorly, it might now be difficult for the examiners to comprehend the demonstration.

The End