MSc Dissertation Project

- What is the dissertation?
- Why do we have a dissertation project?
- How are projects allocated?
- When does everything happen?
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What is the dissertation project?

- A substantial and extended piece of individual project work

- Could be theoretical, or design-and-build

- Evidence that you can plan and manage your own work

Why do we have a dissertation project?

- Opportunity to pursue specialised interest
  - Projects can be proposed by staff and students

- Builds on taught modules

- Provides evidence that you can plan and manage your own work

- Essential in programme accreditation

What makes a good dissertation?

- Careful analysis
  - What has already been done?
  - What are the requirements?

- High quality implementation
  - Good experimental design
  - Evaluation of evidence
  - Evidence of original thought

- A well-written report
  - Communicates aims, results, and further work
  - Places project within wider context

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Project modules

Cybersecurity and AI:
- COM6013 Cybersecurity and AI Dissertation Project

ACS / CSSLP:
- COM6906 Dissertation Project

Data Communications:
- COM6910 Dissertation Project

Data Analytics:
- COM6912 Individual Data Analytics Dissertation Project

Some constraints …

Cybersecurity and AI:
- must select a project involving either plain security, or security and AI themes

Data Analytics:
- should have a theme that involves data analysis, such as a topic based on machine learning (ML), or where ML is applied to some task, eg. a natural language processing task

ACS / CSSLP / Data Communications:
- should consider whether your choice is broadly suitable for your programme

Project supervision

- Projects will have an academic as supervisor
  - Each academic may supervise multiple projects, but there is a predefined upper limit

- You rank projects by your interests, while academics may rank students by suitability to their projects

- Matchmaking algorithm to pair up students and projects

(note) Your final dissertation, and presentation, will be marked by your supervisor and an independent second marker

Staff proposed projects

- Some are generally available, some are restricted by programme or skill set
  - You will only see projects available to your programme
  - You should check the required skills and ensure you have them
  - If some skill is recommended, you don't have to have it, but be prepared to do some extra work — you will be expected to develop that skill

- Popular topics will have a lot of interested students
  - If you are interested in a particular topic, let the supervisor know
  - After the student ranking period, they will rank their preferences for students
  - If you really want to do a particular project, you want that supervisor to rank you high

- If you see a topic that is interesting but you want to do something slightly different, contact the supervisor – they are usually flexible

- Some topics can be undertaken by more than one student
  - But they have to work on different aspects of the topic – every project must demonstrate individual work

Who is this person??

- You've only had classes with a small subset of the staff in the department
  - Maybe you'd particularly like to work with someone
  - Many staff in the department in various fields of research
  - Some new staff arriving in January/February 2021

- Bear in mind that there are many other staff whom you have never met
  - Don't ignore the opportunities to learn new things

- Equally, many staff won't know who you are
  - It is a good idea to discuss their project with them so that they do know have an idea who you are
  - Contact them by email to start communication
  - You may even meet them in person if they are available

External projects

- Some project may be proposed by an external body such as
  - someone in the University
  - local charity, institution …
  - companies …

- An external project also requires a staff member who is interested to supervise it

Student proposed projects

- You are free to propose your own project

- But you can do your own project only if a staff member is willing to supervise it
  - Make a staff member want to supervise your project!

- A good project idea has a clear aim, is relevant to the course, and is feasible within the timescale
  - You have access to create your own proposal — only one
  - Staff will read the proposals, and may have questions for you – check your email

Selecting your project

- We have a new project system 😀
  https://comapps.shef.ac.uk/projects/
  - Use your CiCS username / password

- New features are still being added – but core functionality is in place
  - You can browse projects
  - You can search projects (based on free text strings and/or predefined tags)
  - You can 'favourite' projects
  - You can rank your project preferences (from your set of favourites)
  - You can add a self-proposed project

Project allocation timetable

- You can browse projects

- You can search for projects

- You can contact staff members with questions about particular projects

- You can favourite projects and rank your favourites

- You can think about self-proposed projects and enter one into the system

Project allocation timetable

- You must have ranked your preferences
  - The more preferences you include, the better chance you have of getting one of them

- Even if you self-propose a project, you should rank your preferences for some staff-proposed projects
  - There is no guarantee that a staff member will be willing to supervise your own project
  - If you self-propose a project, and you have particular staff in mind to supervise that project, it is a good idea to contact them to discuss the project (better chance then that they will be willing to supervise)

Project allocation timetable

- You can no longer make changes

- Staff will see all students who have expressed interest in each of their projects (but not their level of interest)

- For each staff-proposed project, staff have the opportunity to rank the students who have expressed interest
    (note) 'expressed interest' == 'favourited project', even if you didn't rank it

- Staff can express interest in external projects and student proposed projects

Project allocation timetable

- System is frozen from both the students and the staff sides

- Project matching starts:
  - If you rank a project #1 and staff ranks you #1 for that project, it is most likely that you are assigned to that project
  - There is then a trickle-down process, until all projects and students are paired, e.g.,
    - Student A ranked project X #1, project Y #2
    - Student B ranked project Y #1, project X #2
    - Staff members for X and Y both rank Student A #1, Student B #2
    - Student A will get project X, Student B will get project Y

- If you don't rank enough projects, there is a risk you will be assigned randomly
  - It is impossible to say precisely how many is 'enough' …

Project allocation timetable

- Once we complete the project allocation process, we will notify you of your project and supervisor match

- If you land on one of projects you ranked as favourite: contact the supervisor and receive guidance

- If you are randomly allocated with a supervisor: contact the assigned supervisor immediately to discuss the topic, then either
  - You agree with one of projects suggested by the supervisor, or
  - You propose your own idea that is agreed by the supervisor

Project starts …

- Dissertation project modules are 60 credits – to be completed during the second semester and the summer months 2022
- 60 credits means 600 hours of work – you must plan well

So …

- Contact your supervisor to discuss how/what/when/where to start
- Be prepared to report on your progress against agreed objectives
- Your supervisor's responsibility is to guide you, not to tell you what to do – project is your independent work

Project schedule: February-September 2022

- Project starts: February 2022
  - You may receive some guidance from your supervisor how to start a project
  - There isn't any project assessment during the second semester — but plan your work well

- Full time project period begins: June 2022
  - You should discuss with your supervisor how to schedule your work during the summer months

- Project presentation: Wednesday 7th September 2022
  - Presentation format: TBA (it is likely run by a conference style at computer rooms)
  - Attendance is required

- Final dissertation due: Wednesday 14th September 2022 at 15:00

More info …

Student handbook:

https://sites.google.com/sheffield.ac.uk/compgtstudenthandbook/menu/msc-dissertation-project

(Blackboard – COM PGT Student Hub - Computer Science Taught Postgraduate Student Handbook – Menu – MSc Dissertation Project)

Project system:

https://comapps.shef.ac.uk/projects/