ELEC6211
Project Preparation

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Introduction

This module is intended to give MSc students the opportunity to demonstrate mastery of understanding of a specific discipline, critical evaluation of research and methods and to show awareness of the current limits of knowledge in preparation for conducting personal research in the same discipline.

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<th>Programme Leader</th>
<th>Programme Cohort</th>
<th>Group</th>
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<tr>
<td>Dr Richard Watson</td>
<td>MSc Artificial Intelligence</td>
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<tr>
<td>Dr Abdolbaghi Rezazadeh</td>
<td>MSc Computer Science</td>
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<tr>
<td>Dr Julian Rathke</td>
<td>MSc Cyber Security</td>
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<tr>
<td>Dr Elena Simperl</td>
<td>MSc Data Science</td>
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<tr>
<td>Dr Corina Cirstea</td>
<td>MSc Software Engineering</td>
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<tr>
<td>Prof Les Carr</td>
<td>MSc Web Technology</td>
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<tr>
<td>Dr Maurits de Planque</td>
<td>MSc Biodevices</td>
<td>Group 1</td>
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<td>Dr Maurits de Planque</td>
<td>MSc Electronic Engineering</td>
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<tr>
<td>Dr Paul Chappell</td>
<td>MSc Energy and Sustainability with Electrical Power Eng.</td>
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<tr>
<td>Dr Basel Halak</td>
<td>MSc Embedded Systems</td>
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<td>Prof Steve Beeby</td>
<td>MSc MEMs</td>
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<tr>
<td>Dr Koushik Maharatna</td>
<td>MSc Microelectronic System Design</td>
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<tr>
<td>Dr Martin Charlton</td>
<td>MSc Nanoelectronics and Nanotechnology</td>
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<tr>
<td>Dr Koushik Maharatna</td>
<td>MSc System on Chip</td>
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<tr>
<td>Dr Bing Chu</td>
<td>MSc Systems, Control and Signal Processing</td>
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Concept

The concept of the course is simple. It acts as a preparatory activity for the summer project, through occasional meetings with your Programme Leader and supervisor.

The aim is to give you an understanding of the area of research that you are doing your project in and to allow you and your supervisor to develop the concept behind your summer project.

The key activity for this module are reading and summarising research articles and building an understanding of the context for the research. The critical points to address are those from the introduction of a dissertation.

**What** is the general setting for your work?
What work have other people done and **how**?
What is the aim or key objective of your project?
**Why** is this important?
**What will be the value of your contribution?**
Lecture sessions

The Monday lecture and Wed/Fri Group lectures (Week 6 onwards) are required attendance sessions to all students on the course but do not necessarily run in every week. These sessions will cover the required knowledge for the module, background material on research and research methodologies and information about the coursework submissions.

Topics:
General writing discussion; Academic Integrity; Writing reviews; Ethics; What is research?; What is analysis? ; Project Planning; Legal and commercial aspects; Giving presentations

The exact times for these sessions will be published later
Project allocation activity

Project allocation will be done using the University Choices system:

https://mychoice.soton.ac.uk

Students accessing the system will be asked to select 6 options from the list of available project option titles available

An allocation will be made based from your choices.

The system and more detailed discussions will take place next week and in the scheduled lectures with
Welcome to Choices

The choice web application allows choosers to make their own choice of project, field trip etc, by selecting a subset of choices in a priority order and then automatically producing a set of allocations in a fair way.

1. The chooser uses the system to select and prioritise a selection of options for a choice.

2. Staff confirm the allocations Choices produces.

3. Choosers are notified of their allocations.
Programme Leaders and Supervisors will provide you with suggested and directed background articles for the area relevant to the work of the summer project.

You should read and summarise these articles, producing a 3-page, two-column format, survey article indicating the background to the problem, the methods and results presented in your group of articles, a comparison and evaluation of approaches, and an indication of the outstanding, unsolved, issues and problems. It should be prepared as if it was going forward to publication - i.e. checked for spelling and other errors and of the highest quality you can produce. It should contain a properly formatted short bibliography included in the page limit.
Review format

You should choose a standard journal appropriate to your discipline - your supervisor will be able to advise you on this. For those using LaTeX this is easy as most publishers provide LaTeX style files that do most of the work for you. Submit your draft report electronically.

Word and LaTeX formatted templates for IEEE journals are provided on the Course home page.

Note on IEEE format: references according to this document include the title of the reference. This is not necessary in this review: because of the tight page limit, reference titles can be omitted.
Remaining two courseworks

The Project Plan:

The second submission is the Project Plan, which should consist of the following sections:

1. Title, Aims and Objectives
2. Description of Methodology
3. Summary of ethical aspects of your project
4. Summary of legal/commercial aspects to your project

The Poster and the Conference:

Lastly you will prepare a small poster summarising the context of your project and your plan for presentation at a miniconference.
There are online lectures available covering aspects of technical writing.

**Online Lecture 1: Technical Writing - Overview**
This online lecture provides an overview of technical writing. It is broken down into three short ~20 minute videos, and you should watch each one in turn. Click on each image to watch the video.

**Online Lecture 2: Technical Writing - Structure**
This online lecture provides a more in-depth look at the different sections of a technical document. It is broken down into short videos (totalling just over 1 hour), and you should watch each one.

**Online Lecture 3: Technical Writing - Reviews**
This online lecture provides an overview of writing review papers and articles.