

First Day Meeting and Introduction to CS546 - MEng Group Project

Marc Roper

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The Essentials

- Curriculum: Available classes listed on 5th year noticeboard (see local teaching pages)
- MEng requires 620 credits including Group Project and Placement
 - ▶ Award: Based on $0.25 * \text{level 4 classes} + 0.75 * \text{level 5 classes}$ (but see handbook for precise details)
 - ▶ Need 50% to pass, 60% for Merit, and 70% for Distinction.
- New semester arrangement:
 - ▶ S1: 11 weeks teaching; 2 weeks formal assessment; Christmas break
 - ▶ Consolidation Week
 - ▶ S2: 11 weeks teaching; 2 weeks Spring break; formal examinations (end 19th May)
- Need to manage workload carefully, especially to account for the group project.

General Issues

- Careers
 - ▶ Scottish Graduate Fair (12-13th October)
 - ▶ IT Fair (2nd November)
 - ▶ Careers Service - sign up and make use of their services (see 5th year noticeboard again)
- Science Ambassadors - Organised by Faculty, opportunity to go on school visits etc. (details on noticeboard)
- Class Representative

Group Project - Overview

This class presents you with the opportunity to consolidate and enhance your technical skills, and also develop generic softer skills such as teamworking, negotiation, budgeting, sourcing and purchasing, project planning and management, and communication.

- Aims to give you “real-world” experience in team working and project management by participating in a sustained and significant group-based project.
- Your team is primarily responsible for *all* aspects of the project development including initial research, planning, design, implementation, and reporting to supervisors.
- Regular meetings with your supervisor (a member of staff) who will provide feedback and guidance mainly on progress and plans, and occasional feedback (monthly-ish) from the external project mentor/sponsor.

Schedule and Assessment

Runs over 2 semesters to approximately the following timetable:

- Initial Specification - Submitted after a few weeks
- Interim Report and Demonstration - Consolidation week (early January)
- Final Report and Prototype Demonstration - End of March (before the Easter break)

Assessment is based on a combination of written work, demonstration, and peer assessment

Precise details for all the above will appear on myplace

Projects

Four projects available this year...

- Wellbeing App for Scottish Football – Sponsored by Hampden Sports Clinic
- Online Platform for Music Makers and Promoters – Sponsored by Ronnie Simpson (muzobook)
- Financial Inclusion App – Sponsored by Morgan Stanley
- Gamification of Observation Imagery – Sponsored by Bird.i (www.hibirdi.com)

Wellbeing App for Scottish Football

“Support Within Sport” is a recently launched mental health initiative in Scottish Football. It allows all players in 42 League Clubs, managers and coaches and Womens Premier League and Academy players access to a confidential helpline where they have access to a range of mental health professionals including doctors, counsellors, psychologists and psychiatrists.

We want to develop an App which can be downloaded by players which will allow access to self-help material and the ability to contact the service. We would like the ability to send push notifications regularly to remind people about the service.

In addition to this, we would like to create a Members Area where members of the players union can log in (using their membership number) and have access to offers, e-vouchers etc.

The aim is for this to go live for 2017-18 season.

Online Platform for Music Makers and Promoters

Muzobook <http://www.muzobook.com/> is an idea for a start-up that aims to link together musicians and promoters of live music.

Basic website will be available soon. Sponsor is then looking for ideas on how to take this further.

Very open-ended and emphatically not a piece of development – looking for imaginative, novel and exploratory ideas.

Financial Inclusion App

Morgan Stanley in Glasgow do a lot of charitable work for the Royal Hospital for Children (also known as Yorkhill Childrens Hospital) in the form of fund raisers and volunteering events.

This year they have the opportunity to assist in the development of a mobile application that aims to equip young adults transitioning from being a child with knowledge and information on matters such as money advice, financial support and to help them develop budgeting skills.

Key stakeholders in this project will be the NHS, Glasgow City Council and Yorkhill Childrens Charity.

This project will involve strong components within the Human Computer Interaction space. This is primarily driven by the need to appreciate and incorporate the needs of users of the application who will have different levels of both physical and cognitive ability. The proposal is for a multi-platform application which will be accessible by different means which suit the usability needs of the target audience.

Financial Inclusion App (continued...)

The project provides a lot of scope to perform both analytical thinking and research into the area of HCI when considering young adults with varying levels of disability. Furthermore the technical breadth that will be required to implement a multi-platform, user friendly application should provide a lot of scope for students to push themselves to deliver an application which will be production ready and easily maintainable. Additionally, as the content will have to be updated by Yorkhill staff, a separate application or admin screens must be built so that the information can be updated easily. Finally the application and any relevant infrastructure and processes must be accurately documented in terms of both technical guides and user guides.

Gamification of Observation Imagery

New images are taken of the earth every day, whether from space (low earth orbit satellite for instance) or from air (airborne, UAV). Bird.i (www.hibirdi.com) is a start-up backed-up by private investors specialising in bringing these up to date images from the sky to the reach of individuals and businesses alike. We already see the benefits that these images have in satisfying our curiosity of the world or helping us making more informed decisions for our digital or physical lives. We want now to explore new ways of interacting with the wealth of data we have at our fingertips.

Huge advances in augmented reality capabilities have unlocked new and innovative ways for us to experience a fusion of the real and digital world, and through the gamification of this technology it has found the mass market appeal that brings it wholly into the mainstream. We believe that by using a combination of augmented reality, gamification, and Bird.i's fresh imagery of the world, we can create a fun, engaging, and interactive experience that will help bring the benefits of up to date imagery from the sky to a much broader audience.

Gamification of Observation Imagery (continued...)

We believe that the best application ideas come from an in depth understanding the applications user, and that the creative processes outlined in Design Thinking and Human Centred Design give the best opportunity for achieving innovative and successful applications. As such, within the scope of this project, we are offering a team of students the chance to work with our design thinking specialist who will support in using this creative process to research and develop your concepts, testing the prototypes with users as you go to iterate toward your final output an interactive application that combines up-to-date imagery, augmented reality, and utilises the principles of gamification.

What the application does, who it is for, and the form it takes is up to you - though we want to reach as many people as possible! The only limit is your imagination.

Project Selection

Feel free to ask questions about these, preferably using the forum on myplace

Please email me your 1st, 2nd and 3rd choices before lunchtime on Wednesday 28th September

Allocation will be circulated by the end of next week, after which you will meet with your supervisor and sponsor at a mutually convenient time.

Any questions?