CM50200 - Mobile and Pervasive Systems: 2017-18

Course Outline

Aims

- To equip you with an advanced understanding of current research issues in mobile and pervasive computing.
- To foster the development of critical analysis of design approaches, research methods and theoretical positions in these areas.
- To explore the range of activities, challenges and opportunities that can be supported by portable and embedded interactive technologies.
- To analyse the relationships between the context, service provision and user experience on mobile and ubiquitous platforms.
- To foster a systemic understanding of mobile and pervasive technologies and their application in different environments.

Learning outcomes

On successfully completing the unit, you should be able to:

- Identify challenges and appropriate research-informed solutions for the design of interacting applications and services in mobile and pervasive contexts.
- Perform principled evaluations of the science and technologies of relevant systems, as well as the services they provide and their application in the real world.
- Critically assess the rationale behind different approaches of researching, developing and applying mobile and pervasive systems.

Unit teaching pattern

Weekly seminars based around research papers (Friday 09:15-10:05). Papers for reading and discussion will be provided by the unit lecturer. In addition, students are expected to present *relevant* papers that they have found for each topic. The topic of one week's seminar (8th of December) will be determined by the students in advance. The topic will be determined during the previous week's seminar. A significant resource for relevant papers, available from any computer on the campus network or VPN, is the ACM Digital Library (http://dl.acm.org/). In addition, the University Library website provides a portal for search in bibliographic databases and other repositories (http://www.bath.ac.uk/library/).

Formative feedback

Formative feedback will be provided continuously and iteratively through discussions and critique in the weekly seminars. Individual issues or problems may be discussed with the unit lecturer outside the seminars (ideally by appointment).

Assessment

The unit is assessed 100% on coursework. The coursework assignment will consist of 2 essays, each of 3,000 words. It will be issued during the second timetabled class on the 13th of October. Details, including hand-in dates, will be specified on the issued assignment sheet. Feedback on the summative assessment, i.e. the coursework essays, will be provided no later than 7 days after the corresponding coursework hand-in deadline, in the form of a mark and separate comments for originality, rigour, clarity and significance.

These criteria may broadly be considered as follows.

- Originality: the extent to which the essay brings fresh views or insights to the topic.
- Rigour: the thoroughness with which the topic is considered and explored in the essay, taking into account both breadth and depth.
- Clarity: the extent to which the narrative and logic of the essay are well constructed, coherent and well presented.
- Significance: the extent to which the essay contributes to understanding, scholarship, theory or practice in the topic area.

Please note that any requests for extensions to coursework deadlines should be submitted to the Director of Studies.

Important dates

Week 1	06 October	Introduction to the course and topics
Week 2	13 October	Novel user experiences with pervasive systems **Issue of both courseworks**
Week 3	20 October	Context awareness
Week 4	27 October	Interacting with pervasive systems
Week 5	03 November	Internet of Things
Week 6	**10 November**	**No class - Consolidation week**
Week 7	17 November	Determining user intent
	18 November	**Coursework 1 deadline – 2:00pm**
Week 8	24 November	Coursework 1 feedback and discussion
Week 9	01 December	Security and privacy in pervasive systems
Week 10	08 December	Student-led topic
	09 December	**Coursework 2 deadline – 2:00pm**
Week 11	16 December	Coursework 2 feedback and closing discussion