340622 - PRDM-R1P07 - Mobile Devices Programming

Coordinating unit: 340 - EPSEVG - Vilanova i la Geltrú School of Engineering
Teaching unit: 707 - ESAII - Department of Automatic Control
Academic year: 2018
Degree: MASTER'S DEGREE IN AUTOMATIC SYSTEMS AND INDUSTRIAL ELECTRONICS (Syllabus 2012).
ECTS credits: 5 Teaching languages: Catalan, Spanish, English

Teaching staff
Coordinator: FRANCESC XAVIER LLANAS PARRA
CRISTOBAL RAYA GINER

Prior skills
Java and/or C programming

Degree competences to which the subject contributes
Specific:
1. CEV02 - Analyze and evaluate programming techniques of mobile devices.

Transversal:
2. EFFECTIVE USE OF INFORMATION RESOURCES. Managing the acquisition, structure, analysis and display of
   information from the own field of specialization. Taking a critical stance with regard to the results obtained.

Teaching methodology
In the learning sessions of this subject, the professor will introduce theoretical explanations and illustrative examples,
concepts, methods and basic results of the matter. These sessions are made of theoretical classes and sessions of
laboratory. Along the course the method of project/problems based learning (PBL) will be applied.
In the theoretical classes the theoretic explanations and the basic concepts of the subject of study will be introduced, and
in the practical sessions of laboratory the professor will increase the knowledge with the concepts and necessary methods
to be able to carry out the problems or projects to solve in the practical work. The practices of laboratory will come true
individually, or in reduced groups.
The tasks outside of the classroom that one must carry out or individually or in group, they are the base of the activities,
and obligatory to be able to progress appropriately in the subject. These activities include the problems and proposed
works, and the previous works to be able to carry out the practices.

Learning objectives of the subject
Identification of characteristics and restrictions of mobile devices.
Management of new technologies of mobile devices from the point of view of programming.
Programming applications for mobile devices.
Implementation and application startup.
Content

Mobile devices

Programming languages for mobile devices

Programming techniques for mobile devices

Specification, design and implementation of applications for mobile devices

Interaction with mobile applications in the area of robotics and automatic systems

Application Programming in Android-based mobile devices
Qualification system

This evaluation is formed by one or two exams of evaluation PA, practical works PR, and works or problems in a group or individual TGI. 
The weighted average of the final note NF corresponds to: 
Nota final = 0,3xPA + 0,4xPR + 0,3xTGI.

Regulations for carrying out activities

The evaluation tests will be carried out individually.
It is indispensable condition to have carried out the practices with sufficiency and in a present way.
For the realization of the practices one must have carried out the previous necessary studies correctly
A follow-up of the progress of the works will be carried on and its presentation.

Bibliography

Basic:


Complementary: