A course on Wireless Sensor Networks (WSNs)

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Chapter 1

About the course

1.1 Course Data

Code: 21754

Course name: "Xarxes de Sensors Sense Fils"
Teacher: Luis Sanabria and Jaume Barcelo
Credits: 4
Year: 3rd or 4th year (optional)
Trimester: Spring

1.2 Introduction

tpd

1.3 Syllabus

- Lectures

  1. Introduction to WSNs

2. Arduino Platform

3. Zigbee and 802.15.4

4. Processing

5. tbd

6. tbd

7. tbd

8. Project presentation

9. Invited talk

- Seminars

  1. Dimming LED + button

  2. tbd

  3. tbd

  4. tbd

- Lab Assignments

  1. Project proposal and planning

  2. Project implementation

  3. Project prototype (alpha)

  4. Project prototype (beta)

  5. Project demonstration

1.4   Bibliography

The course closely follows the book:

Robert Faludi "Building Wireless Sensor Networks" ([1]).

1.5 Evaluation Criteria

The grading is distributed as follows:

- Lectures continuous assessment, 20%

- Lab assignments, 20%

- Project proposal, 20%

- Project presentation, 20%

- Project demonstration, 20%

It is necessary to obtain a decent mark in all the different evaluation aspects. To pass the course, 50 out of the total 100 points need to be obtained.

1.6 Survival guide

1.6.1 Questions and doubts

WE like to receive questions and comments. Normally, the best moment to express a doubt is during the class, as it is likely that many people in the class share the same doubt. If you feel that you have a question that needs to be discussed privately, we can discuss it right after the class.

1.6.2 Continuous feedback

At the end of the lecture, we will ask you to anonymously provide some feedback on the course. In particular, I always want to know:

- What is the most interesting thing we have seen in class.

- What is the most confusing thing in the class.

- Any other comment you may want to add.

  In labs, I will ask each group to hand in a short (few paragraphs) description of the work carried out in class, and the members of the group that have attended the class. Note that this is different from the deliverables, which are the ones that are actually graded.

1.6.3 How to make you teachers happy

Avoid speaking while we are talking.

Bibliography

[1] R. Faludi. *Building Wireless Sensor Networks: with Zig-Bee, XBee, Arduino, and Processing.* O'Reilly Media, Incorporated, 2010.