

Tárgytematika / Course Description

Project Labor II. MSc

NGM_TA119_2

Tárgyfelelős neve /

Teacher's name: dr. Fehér András

Félév / Semester: 2019/201

Beszámolási forma /

Assesment: Folyamatos számonkérés

Tárgy heti óraszám /

Teaching hours(week): 4/0/0

Tárgy féléves óraszám /

Teaching hours(sem.): 0/0/0

OKTATÁS CÉLJA / AIM OF THE COURSE

This course is a project course: the evaluation for the course is based on the satisfactory completion of the project.

The project is for the student to take an active part in exploring the subject area.

Thus, a project must be chosen that will clearly extend your knowledge and understanding of some area of relevant to the corresponding courses of the student. The project is also intended as a useful prototype experience for those going on to advanced design work or research.

There are four aspects to a project:

- Problem definition and literature background.
- design
- implementation and experimentation
- working in team

The problem definition and literature background should explore and describe the problem or area of interest and provide some investigation of background work in this area. It should examine the research literature in the selected area, according to what are the important problems, to what degree are these problems understood and solved, how different solutions interrelate, and what are the important issues for the future. Original thoughts, solutions, insights are strongly encouraged and will be rewarded. With the intended "prototyping" nature of the projects, the design, implementation and evaluation may be performed iteratively. However, there is merit in trying to think things through before doing at each iteration.

In the implementation and experimentation phase, the design, or some aspect of the design is implemented to demonstrate feasibility. The experimentation involves developing a reasonable hypothesis and designing and performing an experiment to test this hypothesis.

Students may work in groups of 2 or 3 (or alone) with the prior consent of the instructor.

TANTÁRGY TARTALMA / DESCRIPTION

Description of the subject:

Structuring the Project

The project is to be structured into the following three stages (or requirements):

1) **Initial Proposal** A written proposal describing the area and problems to be explored, the motivations for choosing this area, possible directions of investigation, proposed type of project, and the expected results. And the progress to be expected by the milestone. This should be roughly 1-3 typewritten pages.

Submission Instructions: Email your written proposal in txt, pdf or doc(x) format to the instructor by end of 1st month. We will give you feedback shortly thereafter and you have a chance to iterate.

2) **Milestone** 1 page report describing progress or a change in plans/course given work done. Should show roughly half completion as described in the initial proposal

3) **Final Report and Demonstration** A final description of what was attempted, what was accomplished, and what was learned from the project. Ideally, this will be a revision of the proposal, changing the descriptions of proposed work to descriptions of accomplished work; refining the goals and objectives, including a brief literature survey for completeness and extended with some final conclusions and observations. The idea is for this to be the cumulation of the previous steps, not an entirely new document. The demonstration should provide some working evidence of the work accomplished, ideally demonstrating some point to the project, i.e. the performance of some critical aspect to the design, etc.

4) Also negative results that indicate something did not work are welcome. In fact, it is important to recognize the limitations of the results in any case.

SZÁMONKÉRÉSI ÉS ÉRTÉKELÉSI RENDSZERE / ASSESMENT'S METHOD

Assessment:

project work as continuous assessment

Requirements for getting the signature for the semester:

- participating in 80% of the classes,
- preparing the given homeworks.

Requirements for getting a mark for the subject:

- preparing the project work given by the lecturer
 - preparing the project report
 - final presentation of the project
-

KÖTELEZŐ IRODALOM / OBLIGATORY MATERIAL

Literature according to the project:

- Normative documents
- Standards
- User manuals of used equipments, circuits
- etc.