Graduation Project Guidelines

The graduation project is one of the most important modules in your studies at the ICS faculty. In this module, you are expected to utilize what you have learned over the years from the different modules and build on them to develop a significant project in a yearlong effort. This importance is highlighted in the weight of the graduation project module of 30 credits. Due to the significance and importance, this document has been created to highlight some of the main guidelines of what constitutes a graduation project and what does not.

Please read the below remarks carefully and contact your supervisor if you have any questions.

What is considered a graduation project?

The graduation project is a decent working prototype and a decent thesis (Kindly refer to the thesis template)

For a project to be considered a graduation project, it has to meet some minimum requirements. These requirements can be summarized as follows:

* The main and core component of the project has to be a **computer science component**. In other words, it should not be a pure development project.

* The amount of work in the project should be equivalent to the effort spent in three regular modules combined, and should be a yearlong effort.

* One metric for the graduation project is the knowledge acquired by the student through the project. Hence, **if the content of the graduation project has been already introduced in one of the modules, then this does not constitute an added value or contribution in the project.**

What is a computer science component?

A computer science component is a component that utilizes one of the domains that you have studied within your years at ICS.

Some examples include:

- *Algorithms,*
- *Data science,*
- *Artificial intelligence,*
- *Image processing,*
- *Data analytics*
- *Real system with its development phases*
- *Software architectures,*
- *Software testing, etc*.

Programming languages including
- Java for Android,
- PHP,
- HTML

or any other language is considered **a tool not a science.**
The computer science component should **count for almost half of the** project at least.

What is **not** a graduation project?

One way to clarify what is considered a graduation project is by discussing what is not considered one. Below are some examples to what **not** a graduation project:

- An interface (whether it is a website or a mobile application regardless of the programming language used) without a significant computer science contribution is not considered a graduation project. For example, if you create a static website or a mobile application that retrieves information from a database or inputs data into a database, then this is not considered a graduation project.

- A project in which you use data and apply one or more of the tools or methods learned in one of the modules is not considered a graduation project.

- A project in which you assemble hardware only is not considered a graduation project.

- Using only Unity for a Game project is not a GP.

- If you use any readily available libraries and the whole project is created that way, then this is not considered a graduation project.

- Using MATLAB on your dataset to perform any of the following (image analysis, segmentation, and/or pattern recognition) is not acceptable to result in an approved GP. This means using MATLAB coding only is not preferred in image processing related GPs.

- All numerical techniques for extracting and selecting image features should be coded by the student.

- Using WEKA, MATLAB for data clustering, classification, and/or regression, is not a GP.

- All models should be coded by the students. Hints for programs which may be utilized to enrich your work: Python, and R.

What should you do now?
Now that you understand what and what does not constitute a graduation project, you should discuss with your supervisor the depth and the scope of your project. Ask as many questions as you want and voice your concerns. The responsibility in this project is ultimately yours.
Remember that this is a yearlong effort, you have to follow up with your supervisor and fill out the attendance sheet.
Good luck