GLIOT — SYSTEMS ENGINEERING

OR, HOW TO DESIGN COMPLEX SOFTWARE-INTENSIVE SYSTEMS?

ESIR3 IOT, 2020-2021

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Motivation

▸ Scale to real-world innovative complex systems
▸ From a software to a system viewpoint
▸ With a rigorous approach

=> From craft to engineering of software-intensive systems
Objective

▸ Technical skills
  ▸ Introduction to Systems Engineering
  ▸ Organization of the project management
  ▸ Get the spirit, the overall method, and the vocabulary

▸ Soft skills
  ▸ Collaborative work
  ▸ Tradeoff analysis
  ▸ Report and argue a design
Organization

- Choose a tool (*Papyrus/Capella*), and explore the resources

- Iterate
  - Design and document your system
  - Refine your stories/tasks

- Define your backlog and your Kanban

- Set up your environment
Timeline

- Wed. Oct. 23\textsuperscript{rd}: Introduction to systems engineering and review of the available resources (on campus)

- Thu. Nov. 19\textsuperscript{th}: Design / refinement of the stories (14h-18h on remote)

- Fri. Dec. 4\textsuperscript{th}: open hours (08h-12h on remote, 14h-18h on campus)

- Fri. Dec. 11\textsuperscript{th}: presentation (14h-16h on campus), and environment setup (16h-18h on campus)
Presentation / Evaluation

- A presentation of 15min (+5min discussion) per group, reporting on:
  - Project introduction (~2pt)
  - Description of the tools and methods for the system design and project management (~3pt)
  - Design of your project (~8pt)
  - User stories and Kanban (~5pt)

- Rules:
  - You may introduce the project, explain/argue the analysis/design and present your Kanban
  - Speech can be in French but the slides must be in English
  - All members of the group may present a part of the presentation, but no more than 1 switch per person

- When?
  - 11/12/20, 14h-16h : presentations
  - 11/12/20, 16h-18h : set up of your overall environment