

Idea Proposal

Open: 2021-09-15 (Sep. 15th, 2021)

Due: 2021-09-24 (Sep. 24th, 2021)

Your first team project is (i) to **propose a software system** and (ii) to **elicit and analyze requirements of your system** (informally). Prior to project 2, in this project your team will propose the software system that you will analyze and design. This semester, implementation is not included in the team project, so you don't need to worry about the implementation of your proposal.

The system to be proposed is a **software-intensive Internet of Things (IoT) system** that incorporates at least one sensor and utilizes data collected from it. In other words, you will be integrating software with sensors or devices. **Your product should offer new and beneficial information or service to the end users.** There is **no limit to** the stakeholders, domains, or resources of your application or service, so don't limit your idea. Propose a unique and useful product.

You can refer to the following examples of the software-intensive IoT systems. We recommend not to directly use the ideas.

- System with an ultrasonic sensor to alert blind and deaf people of obstacle detection
- Cars with lane keeping assist system using cameras
- Smart garden using temperature and humidity sensors
- Rain sensors to automate windshield wipers of a car
- A mobile application that monitors users' vitals using various sensors

If your team made your own topic, then you need to clarify the new system. Before analyzing and designing your system in detail, there can be many issues to be discussed and negotiated with your teammates. Based on the discussion results, write the following information on the report.
(no more than 3 pages)

1. **Subject application:** **name of the system and the topic**
2. **Application summary:** brief description of your system
 - A. **Target domain:** **category** of your system
(you can select 1~3 categories from [here](#))
 - B. **Expected users**
 - C. **Description:** motivating key ideas and originality of your system
3. **Functional issues (list):** required functions of your system components
 - ☐ Please do not miss important functionalities to be provided by your system
4. **Non-functional issues (list):** required quality attributes of your system
 - ☐ You can refer to the examples of non-functional requirements in Wikipedia (https://en.wikipedia.org/wiki/Non-functional_requirement)

** Submit your idea first on KLMS Idea Proposal Board with "[Team #] YOUR IDEA" as the subject including a short summary in the content. We will accept the ideas on a first come first served basis to prevent teams having similar topics, so please do not submit ideas that are already taken. Then, submit your idea proposal report to KLMS (not by e-mail).*