### Terms and conditions This document (the contract) is drawn between one (or more) member(s) of faculty (the supervisor(s)) and a student (the student). It contains binding and final information .. of the project. relating to the completion of a senior project within the department. Failure to satisfy any set deadlines and/or objects and/or deliverables, constitutes breach of contract that will lead to project abandonment and/or a failing grade The student agrees and promises to: Undertake this project; invest the agreed upon effort; submit any required material and generate any deliverables (software, hardware and documentation); work on the project on their own under the guidance of the supervisor(s); maintain the momentum of the project and be in frequent contact with the supervisor(s); find panel member; present the work. The supervisor(s) agree and promises to: Help the student with their project; guide the student through any difficulties; provide pointers and suggestions on how to continue and eventually complete the work; support the student; review all submissions in a timely fashion and provide a meaningful educational experience Date: 10/10/2024 Of signing **Contributing parties** The student The supervisor Who is involved Name: Martin Aziz Name(s): Konstantinos Katzis Reg no: 20201942 Email: ma201942@students.euc.ac.cy Email(s): k.katzis@euc.ac.cy Mobile no: Click here to enter text. Mobile no(s): Click here to enter text. Martin A. Signature: Signature: Blanker **IMPORTANT:** In order to register you must: 1) have a GPA ≥ 2.0 and 2) have 96+ credits In order to register you must present this (signed) contract to the 490 instructor Please remember You must register within two (2) weeks from the beginning of the semester **Grading:** 10% of the project grade is from the report. Important, please note. 10% of the project grade is from the presentation 80% of the project grade is associated with the project requirements and objectives. Please see the 'objectives' subsection in the 'Project details' section of this contract

### **Project details**

Enter the details of the project.

Title: Post-Operation Vital Sign Monitoring Device

Description: An IoMT medical devices are typicall off-the-shelf devices used to measure body temperature, heart-rate and other vital signs. Most of these devices are currently employing Bluetooth. The student is requested to design and develop a post operation vital sign monitoring device (off-the-shelf Bluetooth – to be provided) that will be used to monitor patients after operation. The proposed device shall be able to connect to the vital sign sensor(s) via Bluetooth . It will collect the data, process it onboard and transmit it to the LoRaWAN network (anyone available). Testing will include reliability performance based on the coverage area. The student should demonstrate a simple prototype of at least 2 devices connected to the LoRa network via Bluetooth. Data should be visualized on LoRaWAN cloud service.

Workload (student agrees to invest): 28 per week

#### Objectives (worth and/or deadlines):

- Review of post operative monitoring of viatl signs / IoT devices / Bluetooth and LoRa Communication Protocols (10%)
- 2. Requirment Analysis and Design of the universal platform (10%)
- 3. Design and Implementation of the modules consisting the system (50%)
- 4. Testing of the system (10%)
- 5. Development of Technical Report (10%)
- 6. Project Presentation (10%)

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# Considerable progress:

By the end of the first semester

What must be completed by the end of the first semester in order for the project to continue and complete? Please refer to the above mentioned objectives and be as specific as possible.

Objectives (1,2) must be completed. Objective 3 must be partially completed. Minimum progress is to demonstrate a Bluetooth device connecting/interfacing to a LoRaWAN platform.

# Deadlines and Deliverables:

Important, What needs to happen for the project, when and how?

This project starts on Fall semester (R1P) 2024. The student must:

Step /Item	Do what	Complete / submit by	Inform / submit to	By what means
1	Submit interim report [optional]	End of semester of registering	Supervisor	Email

2 (¹)	Create the panel	Friday, 4 weeks	Supervisor &	Email
		before presentation	490 instructor	
3 (¹)		Friday, 3 weeks	Panel &	Email &
	thesis (85%+) to panel	before the presentation	490 instructor	Blackboard submission
4 (¹)	Submit finalised project documentation	Thursday, 1 day before the presentation	490 instructor	Blackboard submission
5 (¹)	Present the project (15-20 minute talk and Q&A)	Friday, Last day of instruction: 30/05/2025	Whole department	Physical

Click here to enter text.

<sup>1</sup> Happens in / refers to the semester/session immediately following the semester of registration. If you registered in fall, then this step must happen in the immediately following spring semester. If you registered in spring, then this step must happen in the immediately following summer session.