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**Middle East Technical University**

**Electrical - Electronics Engineering Department**

***EE493 - Engineering Design I***

***Weekly Report***

**Group Name:** λambda

**Date:** 19.12.2021 *(Week 10&11)*

**Design Coordinator:**

Associate Professor Dr. Elif Vural

**Members of Company :**

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1. **Done During Week 10**
2. A new microcontroller was acquired to test its built-in RSSI functionality. The group realized that using a microcontroller that has an embedded communication module would be more fit for the task.
3. Algorithm studies were conducted for distance determination with RSSI. The researches were divided into two as demo-oriented and future prospective.
4. It was determined that the methods used were affected by what kind of disturbances and noises. The error rates were compared, also.
5. **Planned for Week 11**
6. The setup for the module demo procedure will be built using the new microcontroller. The initial tests will be done using RSSI and some sample data will be taken to observe how reflective our measurements are to the actual distance.
7. A few algorithms determined will be run on demo devices and the software that provides the appropriate specs will be made ready for the demo.
8. The test environment and cases to be shown for the demo will be examined. The most suitable environment will be tested and finalized for the demo.
9. The cases, which briefly and concisely summarize the main features of the project, will be evaluated within the hardware, software and test environment trio in accordance with the demo.