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**EE 491 – SENIOR PROJECT I**

 **FIRST INTERIM REPORT**

**TED University
Department of Electrical and Electronics Engineering**

**Group Name (Optional)**

**Project Title:** (The title of the EE 491/492 project)

**Project Team Members:** (The names of the students who work together in the same project team)

**Project Supervisor(s):** (Academic title and name of the supervisor(s))

**Submission Date:**

**FALL 2022-2023**

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# INTRODUCTION

This report template aims to help the students prepare their *first interim report* for the EE 491 – Senior Project I course. The students are required to follow the exact formatting of page setup, page, section, and subsection numbering, referencing, tables, and figures as given in this template. The grading of this report will be both over style and content. This report must be submitted by the **end of the 7th week of the semester** via [Moodle](https://lms.tedu.edu.tr/) as a PDF file. The PDF file should be named in the format as follows:

**EE491\_semesteryear\_IR1\_studentname1\_ studentname2.pdf**

***Example:***

**EE491\_Fall2022\_IR1\_AliVelioglu\_VeliAlioglu.pdf (for group projects)**

**EE491\_Fall2022\_IR1\_AliVelioglu.pdf (for individual projects)**

This section serves as an introduction to the senior project topic. Moreover, this section should provide brief information about the project (abstract), its extent, and its aim. The objectives of the project and the justification of these objectives should be explained. Finally, the summary of the information given in the remaining sections should also be presented. The Introduction section is usually not divided into subsections. The following sections may have subsections. Typically, the introduction should not exceed 500 words.

# PROJECT DESCRIPTION

This section provides a thorough and detailed description of the project topic, as well as the motivation for the work and possible utilization schemes for the intended outcome in practice. It is important to emphasize that your design experience should be based on the knowledge and skills acquired in earlier coursework. The design should be subject to several realistic constraints. Finally, please state which Sustainable Development Goals (SDGs) are satisfied by your project and how. You may find a brief overview of the 17 SDGs below.

**SUSTAINABLE DEVELOPMENT GOALS**

The SDGs also known as the Global Goals, were adopted by all United Nations Member States in 2015 as a universal call to action to end poverty, protect the planet and ensure that all people enjoy peace and prosperity by 2030. You may find detailed information about the goals at <https://sdgs.un.org/goals>.

The 17 SDGs to transform our world are listed (and depicted in Figure 1) as follows.

1. No Poverty
2. Zero Hunger
3. Good Health and Well-being
4. Quality Education
5. Gender Equality
6. Clean Water and Sanitation
7. Affordable and Clean Energy
8. Decent Work and Economic Growth
9. Industry, Innovation, and Infrastructure
10. Reduced Inequality
11. Sustainable Cities and Communities
12. Responsible Consumption and Production
13. Climate Action
14. Life Below Water
15. Life on Land
16. Peace and Justice Strong Institutions
17. Partnerships to achieve the Goal



Figure 1 – Sustainable Development Goals

The steps that are taken throughout the design and implementation of the project need to be presented in this section. Visual elements such as schematic depictions, illustrations, block diagrams, and photographs of the intended design steps and those of similar or related previous designs should be utilized to provide the reader with a better understanding of the overall project. These should be first mentioned in the text and then appear later in the report, as shown in Figure 2.



Figure 2 – Block Diagram of a Unit Feedback Control System

# PROJECT ORGANIZATION

This section provides detailed information about the organization of the project. The project team and its members should be clarified. If the project is planned to be completed by a team, team members should clearly state how they share the project workload. Details of the project timeline should be presented with the help of the Gantt chart as in Table 1. Moreover, the project work management, which includes the objective of each task, expected outputs as well as possible risks, should be explained in Table 2.

Table 1 – Project Timeline

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Task #** | **Name of the Task** | **Responsible** | **Success Criterion (%)[[1]](#footnote-1)** | **EE 491 – WEEKS** |
| **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** | **10** | **11** | **12** | **13** | **14** |
| **1** | Literature review | Ali Velioglu | 20 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **2** | Circuit design on the breadboard | Ali Velioglu, Veli Alioglu | 30 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **3** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **…[[2]](#footnote-2)** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Task #** | **Name of the Task** | **Responsible** | **Success Criterion (%)[[3]](#footnote-3)** | **EE 492 – WEEKS** |
| **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** | **10** | **11** | **12** | **13** | **14** |
| **4** | Softwater Prototype Design | Ali Velioglu | 20 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **5** | Tests | Ali Velioglu, Veli Alioglu | 30 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **6** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **…[[4]](#footnote-4)** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

Table 2 – Project Work Management

|  |  |  |  |
| --- | --- | --- | --- |
| **Task #** | **The Objective of the Task** | **Expected Output** | **Possible Risks** |
| **1** |  |  |  |
| **2** |  |  |  |
| **3** |  |  |  |
| **…** |  |  |  |

# BACKGROUND RESEARCH

## **BACKGROUND ACQUIRED IN COURSEWORK**

This subsection presents the theoretical background obtained in courses taken in the first three years of the undergraduate program that will be used in the project. Provide the discussion of these topics such as available methods and tools if necessary mathematical formulae and derivations. For example, the output of the system in Figure 2 is given as in Equation 1.

|  |  |
| --- | --- |
| $$y\left(t\right)=\frac{C\left(s\right)G\left(s\right)}{1+C\left(s\right)G\left(s\right)}r\left(t\right)$$ | (1) |

For each topic, state the related course name and number.

## **BACKGROUND ACQUIRED THROUGH RESEARCH**

Typically, the theoretical background acquired in earlier coursework is not sufficient to carry out the project work. Additional research is needed to complete each project such as literature review, advanced theoretical or practical studies, background in the specific field, software, or hardware know-how, etc. Present any background knowledge that is required for the project but not acquired in earlier course work in this subsection.

# CONCLUSION

The conclusion should start with a summary of the report. It should also contain information regarding the status of the design project and end with an elaboration on future work. The conclusion section is not mandatory in the first and second interim reports, but it might prove useful to plan and lay out the remainder of the project work.

# REFERENCES

(When a reference, such as a book [1-2], handbook [3], report [4], journal [5], conference paper [6], or any other document is cited in the text, it should be properly listed in the References section. Use the [IEEE Citation Reference](https://ieeeauthorcenter.ieee.org/wp-content/uploads/IEEE-Reference-Guide.pdf) format.)

|  |  |
| --- | --- |
| [1] | J. K. Author, “Title of chapter in the book,” in *Title of His Published Book, x*th ed. City of Publisher, Country if not USA: Abbrev. of Publisher, year, ch. *x*, sec. *x*, pp. *xx–xx.* |
| [2] | B. Klaus and P. Horn, *Robot Vision.* Cambridge, MA: MIT Press, 1986. |
| [3] | *Motorola Semiconductor Data Manual*, Motorola Semiconductor Products Inc., Phoenix, AZ, 1989. |
| [4] | J. H. Davis and J. R. Cogdell, “Calibration program for the 16-foot antenna,” Elect. Eng. Res. Lab., Univ. Texas, Austin, Tech. Memo. NGL-006-69-3, Nov. 15, 1987. |
| [5] | R. E. Kalman, “New results in linear filtering and prediction theory,” *J. Basic Eng.*, ser. D, vol. 83, pp. 95-108, Mar. 1961. |
| [6] | C. Berrou, A. Glavieux, and P. Thitimajshima, “Near Shannon limit error-correcting coding and decoding: Turbo-codes. 1,” in *Proc. Int. Conf. Commun.*, Geneva, Switzerland, May 1993, pp. 1064–1070. |
|  |  |

1. The sum of the percentages specified in this section must be 100. [↑](#footnote-ref-1)
2. The rows in the table can be expanded as needed. [↑](#footnote-ref-2)
3. The sum of the percentages specified in this section must be 100. [↑](#footnote-ref-3)
4. The rows in the table can be expanded as needed. [↑](#footnote-ref-4)