

**KARADENİZ TECHNICAL UNIVERSITY
FACULTY OF ENGINEERING
DEPARTMENT OF METALLURGY AND MATERIALS ENGINEERING**

DESIGNING PROJECT



PROJECT NAME

**DRICTOR OF PROJECT
RESEARCHER**

**Month, Year
Trabzon**

**KARADENİZ TECHICAL UNIVERSITY
FACULTY OF ENGINEERING
DEPARTMENT OF METALLURGY AND MATERIALS ENGINEERING**



DESINING PROJECT

PROJECT NAME

**DRICTOR OF PROJECT
RESEARCHER**

Supervisor

Title, Name, Surname:

PREFACE

It is written as the first page and does not exceed one page. It is in the form of a private message that the author of the thesis wants to express, and includes his personal views, goals and wishes on the subject. If there are organizations that support the thesis, they can be mentioned and if requested, the interested parties are thanked. Also, there is no thank you page. The PREFACE is written in capital letters (bold and bold characters) at the top of the page, in the middle. Write the name of the author at the bottom right of the preface.

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ABSTRACT

PROJECT NAME

Proje Sahipleri

**KARADENİZ TECHNICAL UNIVERSITY
FACULTY OF ENGINEERING
DEPARTMENT OF METALLURGY AND MATERIALS ENGINEERING**

**Supervisor:
YIL**

The design project is expected to cover (a) the importance of the location (b) the original value, (c) the method, and (d) the outline of the design consideration. Each abstract should be limited to one page. It is recommended that this section be written last.

Key Words:

General Spelling Rules

- The Design Project must be written on a computer. The font should be "Times New Roman" and it should be "12 point". If desired, italic type (especially for Latin names) can be used in the parts that need to be specified in the thesis. Other types of writing are not accepted. All symbols and special signs must be written by computer or template. Scratch, etc. Corrections must be made with care and in such a way that they cannot be seen in copies.
- There should be a margin of 3 cm on the top edge of the paper, 3 cm on the left edge, and 2.5 cm on the bottom and right edges of the paper. The last word of the last line of the page is not divided into two. Subsection headings should be written at least two lines above the bottom margin or on the next page.
- After the main section titles such as the Preface, Table of Contents, Abstract, are written 4 cm below the top edge, 1.5 line spacing is left for the text.
- All text is written with 1.5 spacing (33 - 37 lines per page). There should be 1.5 line spacing between paragraphs. Footnotes, References, Tables, Figures and Appendices should be written with 1 spacing. A gap of 1.5 intervals should be left between the two sources. A letter space is left after punctuation marks such as periods and commas. The paragraph begins with a 1 cm space.
- Shapes, graphs, diagrams, maps, photographs, pictures, etc. covers. Figures and graphics should be drawn on the computer using software such as Excel, Orgin, Autocad, Solidworks. Figure captions should be centered below the figure, while table captions should be centered above the table. Figure and Table usage examples are shown below.



Figure 1. Vibrating sample magnetometer (VSM) to be used for magnetic measurements.

Table 1. Features and cost of materials used in the design

Product No	Product Name	Dimension	Properties	Using Area	Unit	Unit Price	Total Price
1	Mold	140*80*40	Copper		2	150	300
2	Cover	140*80*2	304L		2	5	10
3	Screw	3*10	403		16	0.15	2.5
4	Oring	100*65*2	Viton		2	12	24
5	Pipe	3 m	Transparent		1	30	30
6	Flowmeter	Special	Special		1	250	250
Total							616.5

1. Scope of Design

The scope, limits and importance of the issue addressed in the project proposal are explained with qualitative or quantitative data as well as a critical evaluation of the literature (deficiencies in the literature). The purpose, target and requirements of the design should be explained in this section. The purpose and objectives of the design project are written in a way that is clear, measurable, realistic and attainable throughout the project.

2. Literature research

It is expected that the current works related to the design project, the scope of which is determined in this section, will be presented in a sequence appropriate to the project. It is recommended to use scientific articles where the sources used are reliable while scanning the literature. Instead of giving raw literature, the differences between the studies and the design project should be shown with clear quantitative and/or qualitative data.

3. Originality

While writing the original value, by referring to the literature, the scientific quality of the project, its diversity and innovation, how it will eliminate which deficiency or how it will solve which problem and/or what kind of original contributions it will make to the relevant science or technology field(s) conceptually, theoretically and/or methodologically. explains

4. Process

The methods and research techniques (including data collection tools and analysis methods) to be applied in the project are explained with reference to the relevant literature. It is demonstrated that the methods and techniques are suitable for achieving the goals and

objectives envisaged in the project. The Methods section should cover the design of the research, dependent and independent variables, and statistical methods. If any preliminary work or feasibility has been made in the project proposal, they are expected to be submitted. Methods must be associated with work packages.

5. Discussion of Design

In this section, it is expected to determine the selection criteria related to the method explained and/or chosen in relation to the work packages. The techniques used in determining the selection criteria should be given in detail, and the determined method should be discussed from different perspectives (applicability of the process, control of process variables, material properties, suitability for the determined goals and targets, environmental effects and cost, etc.). Each discussion title identified in this section should be explained separately. While explaining the cost criterion, all the tools, equipment, software, workmanship, etc. to be used in the design project. matters must be taken into account.

6. Work-Timeline

The period in which the main work packages to be included in the project will be carried out should be given by filling out the "Work-Time Schedule". The academic calendar prepared by KTU should be taken into account in the creation of work packages. An example work-timeline is shown below.

Table 2. Work-timeline to be applied in the design project

İP No	İP	By Who(s)	Months			
	Work		1	2	3	4
1	Kalıp tasarımının yapılması					
2	Malzeme temini					
3	Kalıp seti imalatı					

7. References

In this section, the list of resources used in the project proposal should be given in accordance with the explanations on the <http://www.tubitak.gov.tr/ardeb-kaynakca> page and these resources should be cited in the text. Some examples of writing citations are given below.

“Author's Surname, Initials., Year of publication, Name of publication, Journal or place of publication, Volume number, Number, Page range”

Ajayi, B. P., Thapa, A. K., Cvelbar, U., Jasinski, J. B. ve Sunkara, M. K., 2017. Atmospheric plasma spray pyrolysis of lithiated nickel-manganese-cobalt oxides for cathodes in lithium ion batteries, Chemical Engineering Science, 174, 302-310.

Bazzi, M., Shabani, I. ve Mohandesi, J. A., 2022. Enhanced mechanical properties and electrical conductivity of Chitosan/Polyvinyl Alcohol electrospun nanofibers by incorporation of graphene nanoplatelets, Journal of the Mechanical Behavior of Biomedical Materials, 125, 104975.

Bhagwan, J., Sahoo, A., Yadav, K. L. ve Sharma, Y., 2015. Porous, One dimensional and High Aspect Ratio Mn₃O₄ Nanofibers: Fabrication and Optimization for Enhanced Supercapacitive Properties, Electrochimica Acta, 174, 992-1001.

Biesuz, Mattia, Luca Spiridigliozzi, Gianfranco Dell'Agli, Mauro Bortolotti, and Vincenzo M. Sglavo. 2018. 'Synthesis and sintering of (Mg, Co, Ni, Cu, Zn)O entropy-stabilized oxides obtained by wet chemical methods', Journal of Materials Science, 53: 8074-85.