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A THESIS SUBMITTED TO
THE FACULTY OF ARCHITECTURE AND ENGINEERING
OF
EPOKA UNIVERSITY

(br)

(br)

(br)

BY

(br)

NAME SURNAME

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IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR
THE DEGREE OF MASTER OF SCIENCE
IN
ARCHITECTURE

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MONTH, YEAR

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_____

Assoc. Prof. Dr. Name Surname
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Date: Month, dd, year

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Assoc. Prof. Dr. Name Surname	(Civil Engineering)	_____
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Dr. Name Surname	(Civil Engineering)	_____

I hereby declare that all information in this document has been obtained and presented in accordance with academic rules and ethical conduct. I also declare that, as required by these rules and conduct, I have fully cited and referenced all material and results that are not original to this work.

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ABSTRACT

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Surname, Name
M.Sc., Department of Civil Engineering
Supervisor: Dr. Name Surname

Abstract goes here. Times New Roman, 12 pt. Indentaion should be “Special first line, 12 mm”. Line spacing should be 1.5 lines with 6 pt before and 6 pt after. The spacing of the footer from the bottom should be 8 mm.

(Please leave one empty line before keywords!)

Keywords: *Please provide 5-8 keywords separated by a comma. Times new Roman, 12 pt,*

ABSTRAKT

TITULLI I TEZES NE SHQIP: TIMES NEW ROMAN 14 PT

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Surname, Name

Master Shkencor, Departamenti i Inxhinierisë së Ndërtimit

Udhëheqësi: Dr. Name Surname

Abstrakti ne shqip. Times New Roman, 12 pt. Indentaion should be “Special first line, 12 mm”. Line spacing should be 1.5 lines with 6 pt before and 6 pt after. The spacing of the footer from the bottom should be 8 mm.

(Please leave one empty line before keywords!)

Fjalët kyçe: *Please provide 5-8 keywords separated by a comma. Times new Roman, 12 pt,*

Dedication goes here (Optional, may be removed instead of blank)

ACKNOWLEDGEMENTS (Optional)

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TABLE OF CONTENTS

No more manually typed Contents! The "..." entries below come from your content.

1. Apply Heading 1, 2, 3 styles in your document to organize your content.
2. In the list below, right-click on any line with "..." and select Update Field.
3. Whenever a window pops up, select **Update entire table** and click **OK**.

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LIST OF TABLES

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LIST OF FIGURES

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(**Please delete this line**. Chapter No and Title should be CAPITAL, Times New Roman 16 pt Bold, line spacing 1.5 lines, 12 pt before, 12 pt after)

CHAPTER 1

INTRODUCTION

(Please leave one empy line 1.5 spacing, 6 pt before, 6 pt after)

1.1 Heading 1 (Problem Statement)

(Times New Roman 14 pt, bold, indentation from left 7mm, hangning, 12mm, 1.5 lines spacing, before 12 pt, after 12 pt)

Sample text…. Unreinforced masonry together with timber, is the oldest building material and one of the widely-used construction methods around the world. This technique is still used nowadays due to low material costs, good sound and heat insulation, locally availability, aesthetics, simplicity of construction and effectiveness.

These structures a prone to earthquakes as they have been designed (often built only based on the rules of common practice) to resist only gravitational loads.

(Please leave two empy lines 1.5 spacing, 6 pt before, 6 pt after when switching to a new heading)

1.2 Heading 2 (Thesis Objective)

Sample text…. In this thesis, will be introduced some useful strengthening techniques such as ferrocement jacketing and polypropylene reinforced mortar coating that have a …

The main objective is to investigate the structural behavior of URM by conducting experimental tests before and after strengthening using two types of strengthening ……

(Please leave two empy lines 1.5 spacing, 6 pt before, 6 pt after when switching to a new heading)

1.3 Heading 3 (Scope of works)

Sample text…. In this section you may explain what types of experiments/survey you did in order to meet the objectives of your study.

(Please leave two empy lines 1.5 spacing, 6 pt before, 6 pt after when switching to a new heading)

1.4 Organization of the thesis

This thesis is divided in 5 chapters. The organization is done as follows:

In Chapter 1, the problem statement, thesis objective and scope of works is presented. Chapter 2, includes the literature reviw…….. Chapter 3, consists of the methodology followed in this study……. In Chapter 4, the experimental results ….. In Chapter 5, conclusions and recommendations for further research are stated.

CHAPTER 2

LITERATURE REVIEW

(Please leave one empy line 1.5 spacing, 6 pt before, 6 pt after)

2.1 Introduction

Sample text …… Masonry is one of the oldest building material and one of the widely-used construction method around the world …..pyramids, 2800-2000 B.C., temples, palaces, bridges and aqueducts of Roman and Romanesque architecture 0-1200 A.D.; the 8800 km long Great Wall of China (14th century) Gothic architecture with cathedrals 1200-1600, etc. [1].

Brick masonry constructions became popular later, in 8350-7350 B.C. at Jericho in Palestine, with some examples of round and oval houses. The first bricks were made of mud or clay, shaped in the desired form and dried in the sun. After sunburned, bricks were laid on the walls using mud mortar.

2.2 Heading 1 (Material Properties)

Sample text …… The structural behavior of unreinforced masonry structure depends upon the individual mechanical characteristics of masonry constituents. Because of this reason, it is of high importance to determine the individual physical and mechanical parameters …….

(Please leave one empy line 1.5 spacing, 6 pt before, 6 pt after when switching to a new sub-heading)

2.2.1. Sub-heading (Times New Roman, Bold, 13 pt, Indentation from left 0, Special first line 10 mm, 1.5 line spacing, 6 pt before, 6 pt after)

Sample text …… Manufacturing of bricks has not changed much by time; it has only improved the quality of the bricks and the efficiency of brick production. In general terms, the bricks are produced by mixing ground clay with water, forming the

clay into the desired shape, drying and firing (*Figure 1*). (In-text figure citation should be Times New Roman, 12 pt, Italic and insertion to be as a Cross-reference)

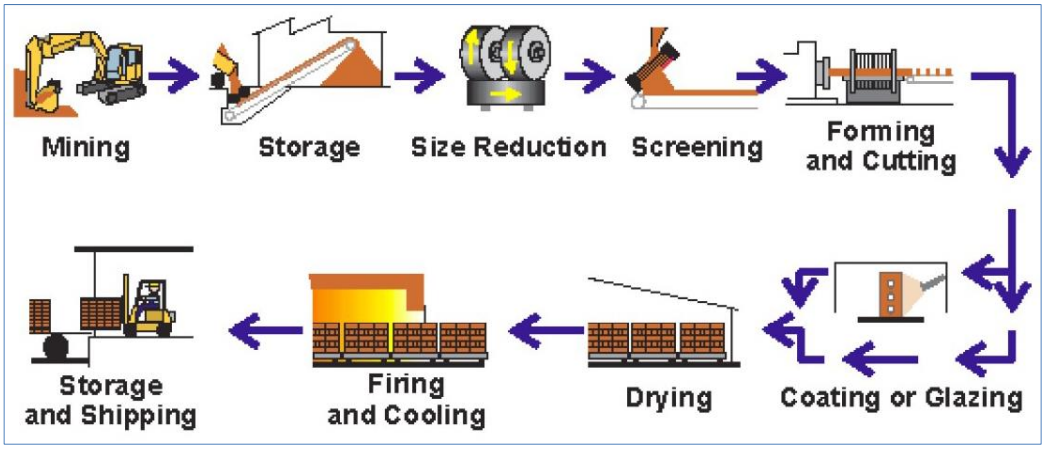

Figure 1. Brick production stages (schematic view)

(Figure caption should be "centered" Times New Roman, 12 pt, 1.5 line spacing, before 6pt and after 18 pt, inserted from "Refences > Insert Caption" and ***Figure No***. (Times new roman 12 pt,bold & italic)

2.2.2 Sub-heading 2

Mortar is the binding layer that connects the masonry untis together. It is composed of a water, sand and lime or cement in pre-defined proportions. ASTM C 270-03 [2], classifies the mortars as of *Table 1* below:

(Table caption should be place above the table, aligned “centered”, with Times New Roman, 12 pt, 1.5 line spacing, before 24 pt and after 6 pt, inserted from “Refences > Insert Caption” and ***Table No***. (Times new roman 12 pt, bold & italic)

Table 1. Types of mortar ASTM C 270-03 [2].

Mortar Type	**Proportion by Volume**			**Binder: Aggregate ratio**	**28 Days Compressive strength**
	Cement	Lime	Sand		
M	4	2	15	1:3	17.2
S	2	2	9	1:3	12.4
N	1	2	6	1:3	5.2
O	1	2	9	1:3	2.4
K	1	3	12	1:3	0.5

(Please leave one empy line 1.5 spacing, 6 pt before, 6 pt after when switching from one sub-heading to a new sub-heading)

2.2.2 Sub-heading 3

Sample text …. Some of other factors that have an influence in the compressive strength of masonry are: workmanship, properties of the masonry units, thickness of the mortar joints, age of mortar, the suction rate of bricks and the thickness of mortar layer. [3]. The optimum joint thickness is suggested to be between 5-10 mm. Any value above would reduce the overall masonry strength in compression [4].

EN 1996-1-1, Eurocode 6, relates the brick unit, mortar and masonry compressive strengths by the following equation [5]:

(When writing an equation, remebre to use “Insert > Equation”. For the Equation caption, use “Reference > Insert caption” For the line of the equation the following paragraph setting should be made: 1.5 spacing, 24 pt before, 24 pt after)

$$f'_m = k \cdot f'^{\alpha}_b \cdot f^b_j \qquad \text{(Equation 1)}$$

where **k**, **α** and **β** are constants and f'_b, f'_j and $f'm$ are brick, mortar and masonry compressive strength; **α** = 0.7 and **β** = 0.3, whereas ***k*** has a range of values.

CHAPTER 3

METHODOLOGY

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CHAPTER 4

RESULTS AND DISCUSSIONS

CHAPTER 5

CONCLUSIONS

(Please leave one empy line 1.5 spacing, 6 pt before, 6 pt after)

5.1 Conclusions

Conclusions should be placed here…….In this thesis, it was investigated the structural behavior of unreinforced and reinforced wall panels, mainly under diagonal compression test. The panels were built from solid clay bricks of two different dimensions; full-scale and half-scale using type “O” mortar.

5.2 Recommendations for future research

You can write here recommendations for future research.

(Reference style should be “IEEE” or APA style. All the references should be properly input in “References > Insert Citation” in order to be displayed here automatically. Text should be Times New Roman, 12 pt, 1.5 lines spacing, before 6 pt and after 6 pt.) (sample references may be seen below!)

REFERENCES

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APPENDIX

Additional materials should be placed here……..