A thesis on designs

Project-I (CE57006) report submitted to

Indian Institute of Technology Kharagpur

in partial fulfilment for the award of the degree of

Bachelor of Technology

in

Civil Engineering

by

John Doe

(12AB123456)

Under the supervision of

Professor X

Department of Civil Engineering

Indian Institute of Technology Kharagpur

Autumn Semester, 2016-17

November 30, 2016

DECLARATION

I certify that

(a) The work contained in this report has been done by me under the guidance of my supervisor.

(b) The work has not been submitted to any other Institute for any degree or diploma.

(c) I have conformed to the norms and guidelines given in the Ethical Code of Conduct of the Institute.

(d) Whenever I have used materials (data, theoretical analysis, figures, and text) from other sources, I have given due credit to them by citing them in the text of the thesis and giving their details in the references. Further, I have taken permission from the copyright owners of the sources, whenever necessary.

Date: November 30, 2016 (John Doe)

Place: Kharagpur (12AB123456)

DEPARTMENT OF CIVIL ENGINEERING

INDIAN INSTITUTE OF TECHNOLOGY KHARAGPUR

KHARAGPUR - 721302, INDIA

CERTIFICATE

This is to certify that the project report entitled "**A thesis on designs**" submitted by **John Doe** (Roll No. 12AB123456) to Indian Institute of Technology Kharagpur towards partial fulfilment of requirements for the award of degree of Bachelor of Technology in Civil Engineering is a record of bona fide work carried out by him under my supervision and guidance during Autumn Semester, 2016-17.

Date: November 30, 2016
Place: Kharagpur

Professor X
Department of Civil Engineering
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Abstract

Name of the student: **John Doe** Roll No: **12AB123456**

Degree for which submitted: **Bachelor of Technology**

Department: **Department of Civil Engineering**

Thesis title: **A thesis on designs**

Thesis supervisor: **Professor X**

Month and year of thesis submission: **November 30, 2016**

Enter content here.

Acknowledgements

Enter acknowledgement content here.

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Abbreviations

FEA	**F**inite **E**lement **A**nalysis
FEM	**F**inite **E**lement **M**ethod
LVDT	**L**inear **V**ariable **D**ifferential **T**ransformer
RC	**R**einforced **C**oncrete

Symbols

D^{el}	elasticity tensor
σ	stress tensor
ε	strain tensor

Chapter 1

Sample

1.1 Introduction

Give a brief of the chapter and introduce what you will talk about.

Literature Survey This is a sample. Write about referred papers. Cite like this (Nip et al., 2010b). Another example would be this (Nip et al., 2010a). More citations like this (Bird and Bommer, 2004), (Tremblay et al., 2003) and (AlHamaydeh et al., 2016).

Research gaps Typically include research gaps for your study.

Objective Similarly objectives of study.

Scope Define scope of study.

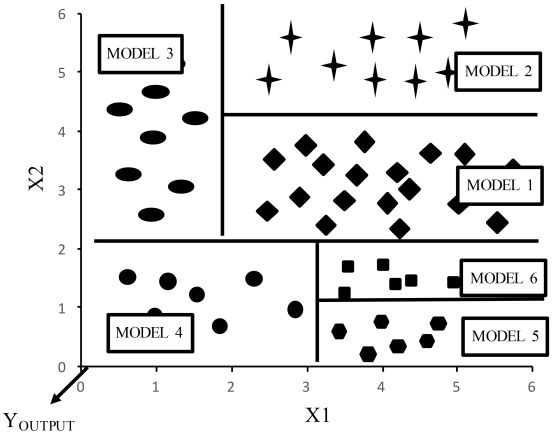


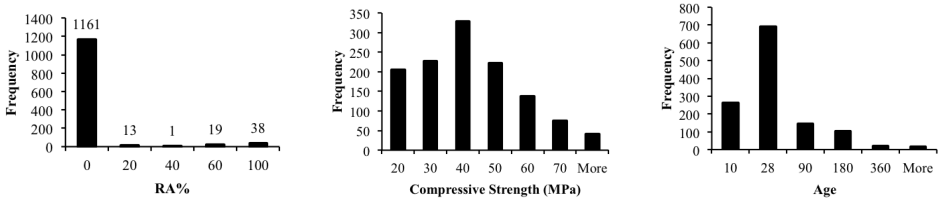
FIGURE 1.1: Splitting of the input space (X1 x X2) by M5' model tree algorithm

An algorithm How you could refer to figures: This is an example. (Refer 1.1). You can add equations like this Eq. (1.1)

$$SDR = sd(T) - \sum_i \frac{T_i}{|T|} \times sd(T_i) \tag{1.1}$$

1.2 Adding another section

You can show a lot of figures together like these Figures 1.2(a), 1.2(b), 1.2(c) below. You can add lists into the text like this.



(a) Caption1 (b) Caption2 (c) Caption3

FIGURE 1.2: Figures sample

- Some sample text item 1.
- You may refer to tables 1.1
- Or figures 1.2(a)

Tables can be added like this

Table 1.1: Sample table

Column 1	Column 2	Column 3	
1	Data1	13.41179	0.9492839
2	Data2	13.39824	0.9492952

Appendix A

Appendix A

Write your Appendix content here.

Bibliography

AlHamaydeh, M., Abed, F., and Mustapha, A. (2016). Key parameters influencing performance and failure modes for brbs using nonlinear fea. *Journal of Constructional Steel Research*, 116:1–18.

Bird, J. F. and Bommer, J. J. (2004). Evaluating earthquake losses due to ground failure and identifying their relative contribution. In *13 WCEE: 13 th World Conference on Earthquake Engineering Conference Proceedings*.

Nip, K., Gardner, L., Davies, C., and Elghazouli, A. (2010a). Extremely low cycle fatigue tests on structural carbon steel and stainless steel. *Journal of constructional steel research*, 66(1):96–110.

Nip, K. H., Gardner, L., and Elghazouli, A. (2010b). Cyclic testing and numerical modelling of carbon steel and stainless steel tubular bracing members. *Engineering Structures*, 32(2):424–441.

Tremblay, R., Archambault, M.-H., and Filiatrault, A. (2003). Seismic response of concentrically braced steel frames made with rectangular hollow bracing members. *Journal of Structural Engineering*, 129(12):1626–1636.