

# 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

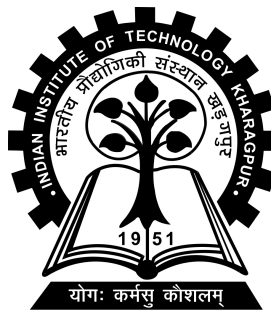
by

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**(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.
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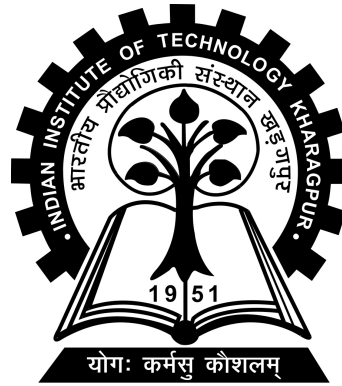
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*CERTIFICATE*

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  
Indian Institute of Technology Kharagpur  
Kharagpur - 721302, India

# *Abstract*

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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**

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Enter content here.

# *Acknowledgements*

Enter acknowledgement content here.

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# Abbreviations

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

# Symbols

$D^{el}$	elasticity tensor
$\sigma$	stress tensor
$\varepsilon$	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.

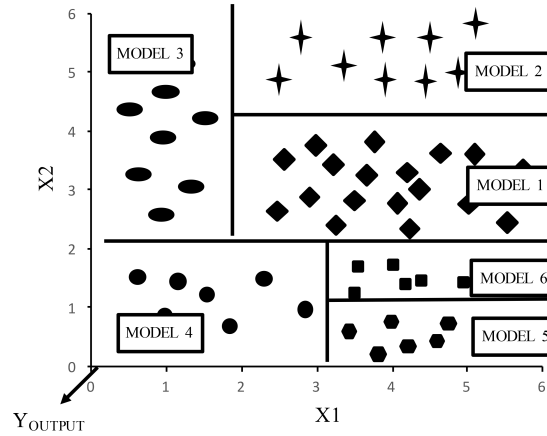


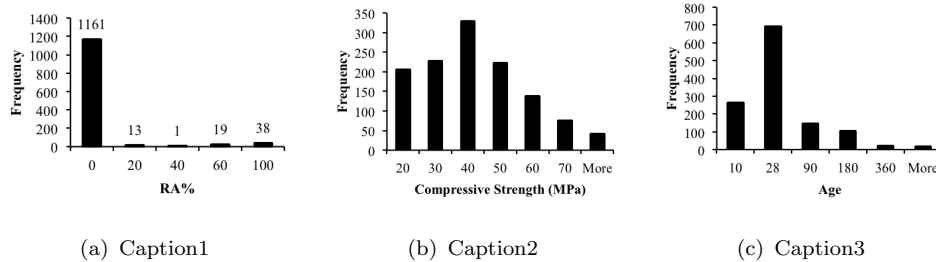
FIGURE 1.1: Splitting of the input space ( $X_1 \times X_2$ ) by M5' model tree algorithm

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

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

## 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.