



MALLA REDDY COLLEGE OF ENGINEERING & TECHNOLOGY

(Autonomous Institution – UGC, Govt. of India)

www.mrcet.ac.in

DEPARTMENT OF MECHANICAL ENGINEERING

Instructions for preparing M. Tech Project Report

The M. Tech Project Report Template folder includes:

1. Instructions for preparing M. Tech Project Report
2. Hard Cover template of M. Tech Project Report
3. Front pages of M. Tech Major Report (Certificate, Declaration, Acknowledgements, Index, list of Tables, List of Figures etc.)
4. Main content template for M. Tech Project Report (Chapters' 1, 2, 3, and 4; References; Appendix etc.)

❖ **Report Page Layout**

- ✓ Paper Size : A4
- ✓ Margins : Top 1" Bottom 1" Right 1" Left 1.3"

❖ Include certificate from project organization

❖ **Font Setting for chapters' 1, 2, 3, and 4; References; Appendix etc.:**

- ✓ Use Times New Roman **14 bold (capitals)** for chapter headings
- ✓ Use Times New Roman **12 bold (capitals)** for main headings
- ✓ Use Times New Roman **12 bold (Smalls)** for Sub/ sub-subheadings
- ✓ Use Times New Roman **12 normal for entire text**
- ✓ Times New Roman (10 Size) for Header & Footers

❖ **Report Formatting:**

- ✓ Each paragraph should be justified (**place cursor inside the paragraph and press control J**) and paragraph line spacing must be **multiple at 2.**
- ✓ Give one-line space between paragraphs
- ✓ Title of the Figure must be at the bottom of the Figure and Title of the Table must be above the table.

❖ **Project report submission:**

- ✓ Soft copy of the Thesis document along with the source code is to be submitted along with the Report
- ✓ Total Three HARD COPY BINDING copies to the department (One to the department, second to the college library, third to the internal guide) plus one personal copy.

HOD

PROJECT TITLE

A Major Project Report Submitted
In partial fulfillment of the requirements for the award of the degree of

MASTER OF TECHNOLOGY in MACHINE DESIGN

by
XXXXXX
15N31A0304

Under the guidance of
NAME OF THE GUIDE
Designation



MALLA REDDY COLLEGE OF ENGINEERING & TECHNOLOGY
DEPARTMENT OF MECHANICAL ENGINEERING

UGC Autonomous Institution, Govt. of India
(Affiliated to JNTUH, Approved by AICTE, NBA & NAAC with 'A' Grade)
Secunderabad – 500100, Telangana State, India
www.mrcet.ac.in

20XX

TITLE OF THE PROJECT

A Major project report submitted in partial fulfillment of the requirements for the
degree of Master of Technology in Machine Design

by

NAME OF THE STUDENT
HALL TICKET NUMBER

Under the guidance of
NAME OF THE GUIDE
Designation



MALLA REDDY COLLEGE OF ENGINEERING & TECHNOLOGY
DEPARTMENT OF MECHANICAL ENGINEERING

UGC Autonomous Institution, Govt. of India
(Affiliated to JNTUH, Approved by AICTE, NBA & NAAC with 'A' Grade)
Secunderabad – 500100, Telangana State, India
www.mrcet.ac.in



MALLA REDDY COLLEGE OF ENGINEERING & TECHNOLOGY

Autonomous Institution - UGC Govt. of India

(Affiliated to JNTU, Hyderabad, Approved by AICTE - Accredited by NBA & NAAC – 'A' Grade)

Secunderabad – 500100, Telangana State, India

DEPARTMENT OF MECHANICAL ENGINEERING

CERTIFICATE

This is to certify that the Major Project work entitled “**Title of the Project**” is carried out by **Name of the Student xxxxx (H.T.NO xxxx)**, in partial fulfillment for the award of degree of **Master of Technology** in **Machine Design**, Jawaharlal Nehru Technological University, Hyderabad during the academic year 20xx-20xx.

XXXXXXXXX
Internal Guide

Prof. Dr A. N. R. Reddy
HOD

External Examiner

(Certificate from Industry)

DECLARATION

I hereby declare that the project titled “Secure U Emergency System” submitted to Malla Reddy College of Engineering and Technology (UGC-Autonomous), affiliated to Jawaharlal Nehru Technological University Hyderabad (JNTUH) for the award of the degree of Master of Technology in Thermal Engineering is a result of original research carried-out in this thesis. I understand that my report may be made electronically available to the public. It is further declared that the project report or any part thereof has not been previously submitted to any University or Institute for the award of degree or diploma.

Name of the Student :

Hall Ticket Number :

Degree : Master of Technology in Machine Design

Department : Mechanical Engineering

Title of the project :

(Name of Student)

Date:

DEDICATION

(Optional)

.

-o0o-

ACKNOWLEDGEMENT

Acknowledgements are to be written by the students as per the sequence mentioned below

- 1) Dr VSK Reddy, Principal
- 2) Head of the Department
- 3) Internal Guide
- 4) Parents and other people who helped to complete the project

ABSTRACT

xxxxxx

(Max. 500 words)

Keywords:

TABLE OF CONTENTS

	Page
Certificate from MRCET	i
Certificate from industry (If any)	ii
Declaration	iii
Dedication (Optional)	
Acknowledgement	
Abstract	
Table of Contents	
List of Tables	
List of Figures	
List of Abbreviations	
CHAPTER 1: INTRODUCTION	1
1.1 Introduction	1
1.2 Problem statement	4
1.3 Scope of research	8
1.4 Research hypothesis	9
1.5 Objectives	10
1.6 Organization of the report	10
CHAPTER 2: LITERATURE REVIEW	12
2.1 Background	12
2.14 Summary of literature review and research gap	71
CHAPTER 3: METHODOLOGY	73
3.1 Materials	73
3.10 Summary of methodology	85

CHAPTER 4: RESULTS AND DISCUSSION	87
4.13 Summary of results and discussion	163
CHAPTER 5: CONCLUSION AND RECOMMENDATIONS	164
5.1 Conclusion	164
5.2 Recommendations	1
REFERENCES	
APPENDICES (if any)	

LIST OF TABLES

Page

Table 2.1 xxxxxx

Table 2.2 Xxxx

LIST OF FIGURES

Page

Figure 2.1 xxxxxxxx

Figure 2.2 xxxxxxxxxxxx

LIST OF ABBREVIATIONS

CHAPTER 1

INTRODUCTION

1.1 Introduction

The growing fossil fuel consumption in the road transportation and other commercial sectors has explicit impact on environment,

.....

1.2 Problem statement

.

.

1.3 Scope of research

.....

1.4 Research hypothesis

Present research work was carried out in accordance with the following specific research hypothesis

- i. Natural
- ii. The

1.5 Objectives

This research focuses on the following objectives

- i. To design.....
- ii. To produce
- iii. To analyze.....
- iv. To optimize

1.6 Organization of the thesis

This thesis is structured in five correlated chapters in following order.

Chapter 1 provides introduction to

Chapter 2 discusses state of the art literature review in

Chapter 3 describes.....

Chapter 4 interprets theas obtained results

Chapter 5 concludes the research and presents summary of research findings.

CHAPTER 2

LITERATURE REVIEW

2.1 Background

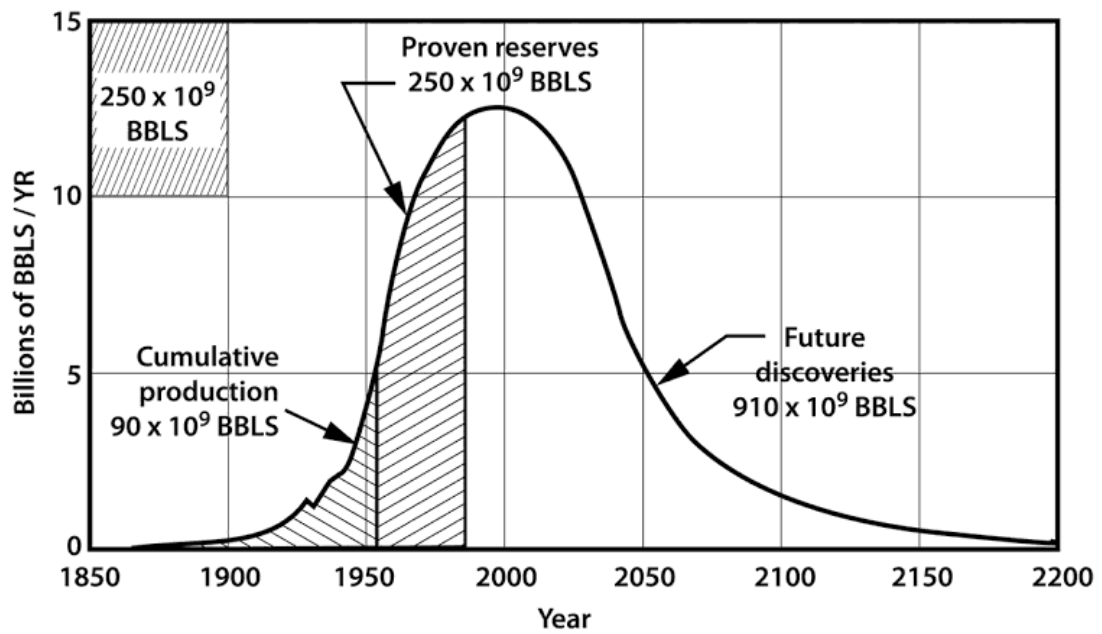


Figure 2.1: Hubbert's prediction curve for global crude-oil production over 1850-2200 (Hubbert, 1956).

According to

Table 2.1: Major feedstocks

Feedstock	Country(s) used for biodiesel production
Animal fat	Mexico, Canada, Ireland
Castor	Brazil
Yellow grease	Canada

Source: xxxxx.....

2.2 Summary of literature review and research gap

The literature review indicates -----

CHAPTER 3

METHODOLOGY

3.1 Materials

-----.

3.2 xxxxxx

----- research group.

3.3 Summary of methodology

CHAPTER 4

RESULTS AND DISCUSSION

4.1 -----

4.1.1 -----

4.2 Summary of results and discussion

CHAPTER 5

CONCLUSION AND RECOMMENDATIONS

5.1 Conclusion

a. According -----

b. -----

5.2 Recommendations

a. -----

b. -----.

REFERENCES

- [1] Reddy, A. N. R., Saleh, A. A., Islam, M. D. S., &Hamdan, S. (2015). Methanolysis of Crude Jatropha Oil using Heterogeneous Catalyst from the seashells and Eggshells as Green Biodiesel. *Asean Journal on Science and Technology for Development*, 32(1), 16–30.<http://ajstd.org/~ajstd/index.php/ajstd/article/view/9/8>
- [2] Reddy, A. N. R., Saleh, A. A., Islam,M. S., Hamdan, S., &Maleque, M. A. (2016). Biodiesel Production from Crude Jatropha Oil using a Highly Active Heterogeneous Nanocatalyst by Optimizing Transesterification Reaction Parameters. *Energy & Fuels*, 30(1), 334–343. <https://doi.org/10.1021/acs.energyfuels.5b01899>
- [3] Reddy, A. N. R., Saleh, A. A., Islam, M. S., &Hamdan, S. (2017). Active Razor Shell CaO Catalyst Synthesis for Jatropha Methyl Ester Production via Optimized Two-Step Transesterification. *Journal of Chemistry*, 2017(1), 20. <https://doi.org/10.1155/2017/1489218>
- [4] Reddy, A. N. R., Saleh, A. A., Islam, S., &Hamdan, S. (2017). Optimization of Transesterification Parameters for Optimal Biodiesel Yield from Crude Jatropha Oil Using a Newly Synthesized Seashell Catalyst. *Journal of Engineering Science and Technology*, 12(10), 10.
- [5] Reddy, A. N. R., Saleh, A. A., Islam, S., Hamdan,S., Rahman, M. R.,&Masjuki, H. H.,(2018). Experimental evaluation of fatty acid composition influence on Jatropha biodiesel physicochemical properties.*Journal of Renewable and Sustainable Energy*, 10(1), 20. <http://aip.scitation.org/doi/full/10.1063/1.5018743>

APPENDICES

Appendix A: Data (if any)

Appendix B: Publications (if any)

- [1] Reddy, A. N. R., Saleh, A. A., Islam, M. D. S., &Hamdan, S. (2015). Methanolysis of Crude Jatropha Oil using Heterogeneous Catalyst from the seashells and Eggshells as Green Biodiesel. *Asean Journal on Science and Technology for Development*, 32(1), 16–30.<http://ajstd.org/~ajstd/index.php/ajstd/article/view/9/8>
- [2] Reddy, A. N. R., Saleh, A. A., Islam,M. S., Hamdan, S., &Maleque, M. A. (2016). Biodiesel Production from Crude Jatropha Oil using a Highly Active Heterogeneous Nanocatalyst by Optimizing Transesterification Reaction Parameters. *Energy & Fuels*, 30(1), 334–343. <https://doi.org/10.1021/acs.energyfuels.5b01899>
- [3] Reddy, A. N. R., Saleh, A. A., Islam, M. S., &Hamdan, S. (2017). Active Razor Shell CaO Catalyst Synthesis for Jatropha Methyl Ester Production via Optimized Two-Step Transesterification. *Journal of Chemistry*, 2017(1), 20. <https://doi.org/10.1155/2017/1489218>
- [4] Reddy, A. N. R., Saleh, A. A., Islam, S., &Hamdan, S. (2017). Optimization of Transesterification Parameters for Optimal Biodiesel Yield from Crude Jatropha Oil Using a Newly Synthesized Seashell Catalyst. *Journal of Engineering Science and Technology*, 12(10), 10.
- [5] Reddy, A. N. R., Saleh, A. A., Islam, S., Hamdan,S., Rahman, M. R.,&Masjuki, H. H.,(2018). Experimental evaluation of fatty acid composition influence on Jatropha biodiesel physicochemical properties.*Journal of Renewable and Sustainable Energy*, 10(1), 20. <http://aip.scitation.org/doi/full/10.1063/1.5018743>