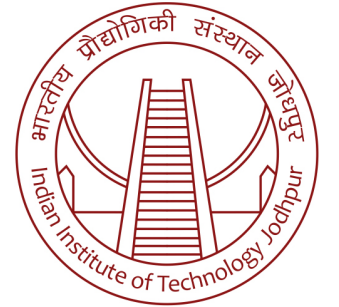# *Title of the Doctoral Thesis*

A thesis submitted by

Name of the Student

in partial fulfillment of the requirements for the award of the degree of

Name of the Degree

॥ त्वं ज्ञानमयो विज्ञानमयोऽसि ॥

Indian Institute of Technology Jodhpur
Name of the Department
July, 2024

Declaration

I hereby declare that the work presented in this thesis titled "*Title of the Doctoral Thesis*", submitted to the Indian Institute of Technology Jodhpur in partial fulfilment of the requirements for the award of the degree of Name of the Degree, is a bonafide record of the research work carried out under the supervision of Name of the Supervisor. The contents of this thesis, in full or in parts, have not been submitted to, and will not be submitted by me to, any other Institute or University in India or abroad for the award of any degree or diploma.

Signature
Name of the Student
Roll Number of the Student

Certificate

This is to certify that the thesis titled " *Title of the Doctoral Thesis* ", submitted by Name of the Student (Roll Number of the Student) to the Indian Institute of Technology Jodhpur for the award of the degree of Name of the Degree, is a bonafide record of the research work done by him under my supervision. To the best of my knowledge, the contents of this report, in full or in parts, have not been submitted to any other Institute or University for the award of any degree or diploma.

Signature
Name of the Supervisor
Ph.D Thesis Supervisor

Abstract

The M.Sc./M.Sc.-M.Tech./M.Tech. program of study requires each student to undertake research in the chosen area of study and to submit a thesis on it in consultation with the faculty member(s) supervising the same. The M.Sc./M.Sc.-M.Tech./M.Tech. Project is included in the curriculum with a view to synthesize the various components of the research work undertaken during the of the M.Sc./M.Sc.-M.Tech./M.Tech. Program at IIT Jodhpur. Creating a Project Report document of the research undertaken is part of the skill building training of the student in technical communications. Here, the emphasis is on presenting a technical matter in an objective written form.

This document is a record of the mandatory guidelines to be followed while preparing the of the Project Report document to be submitted at the end of the M.Sc./M.Sc.-M.Tech./M.Tech. Program. It prescribes typical contents that an M.Sc./M.Sc.-M.Tech./M.Tech. A project report document should usually contain and provide the format of its presentation. While most of these guidelines are prescriptive, some are subjective; but towards ensuring a relatively uniform style of presentation of all M.Sc./M.Sc.-M.Tech./M.Tech. Project Report being submitted at the Institute, these subjective guidelines are expected to help in setting at least a reasonable minimum expectation of the presentation level of the work accomplished in the research program.

All students pursuing M.Sc./M.Sc.-M.Tech./M.Tech. Program are urged to read the contents and form of this document carefully, and prepare their Project Report document as prescribed. It is hoped that this document will lead to a modest beginning at the Institute towards imparting education in professional written presentations.

Acknowledgements

The acknowledgments and the people to thank go here. Don't forget to include your thesis advisor…
;)

    I thank my Ph.D. Thesis Supervisor, *Name of the Supervisor* for introducing me to the area of technical writing and its nuances. In the process, I have learned many technical and non-technical aspects of professional work. I am grateful to him for his help and patience and for constantly reminding me to be perfect in the little things I do each day. Also, I am indebted to the Members of the Doctoral Committee, Professor XYZ, and Professor ABC, for their enthusiastic and continued guidance during the research work.

    I thank Professor OMG for his classes on self-awareness, which helped me to overcome the tough times during the Doctoral Program. I thank Professor SPQ for providing access to the Language Laboratory, and to the computational hardware and software facilities alongside.

    My stay at the Institute was a wonderful experience because of my friends, XYZ, for all the liveliness they infused into the non-academic part of the days at IIT Jodhpur…

    I acknowledge and thank my family, especially my sister ABC, for the patience and love with which they ushered me and for bearing with me even when I was not spending less time with them. I pay respects to my parents for all their love, sacrifices, and blessings…

Name of the Student
Ph.D. Student

This thesis is dedicated to my family members for their limitless support, encouragement and to you as a reader

Contents

List of Figures

List of Tables

List of Symbols

Other symbols

V Constant volume

ν Friction index

Physics constants

c Speed of light in a vacuum

h Planck constant

G Gravitational constant

RH relative humidity in percentage

List of Abbreviations

1
Introduction

1.1 INTRODUCTION

Welcome to this LaTeX Thesis Template, a beautiful and easy to use template for writing a thesis using the LaTeX typesetting system.

If you are writing a thesis (or will be in the future) and its subject is technical or mathematical (though it doesn't have to be), then creating it in LaTeX is highly recommended as a way to make sure you can just get down to the essential writing without having to worry over formatting or wasting time arguing with your word processor.

LaTeX is easily able to professionally typeset documents that run to hundreds or thousands of pages long. With simple mark-up commands, it automatically sets out the table of contents, margins, page headers and footers and keeps the formatting consistent and beautiful. One of its main strengths is the way it can easily typeset mathematics, even *heavy* mathematics. Even if those equations are the most horribly twisted and most difficult mathematical problems that can only be solved on a super-computer, you can at least count on LaTeX to make them look stunning.

1.2 SECTION1

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1.3 RESEARCH MOTIVATION

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1.4 RESEARCH OBJECTIVE

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1.4.1 RESEARCH CONTRIBUTIONS

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ORGANIZATION OF THESIS

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Figure 1.2.1: Intelligent sensor architecture

Table 1.2.1: Components used in this experiment with specifications

Components	Specifications
Microcontroller	Arduino nano (ATmega328)
Ultrasonic sensor	HC-SR04
Temperature and humidity sensor	DHT22 (AM2302)
Bluetooth module	HC-05

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1.5 LIST OF PUBLICATIONS

2
Experimental

2.1 SECTION 1

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Publications

Use this section to highlight any publications from the work presented in your thesis.

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