**YOUR INTERNSHIP PROJECT TITLE**

*A report submitted in partial fulfillment of the requirements for the Award of Degree of*

**BACHELOR OF TECHNOLOGY**

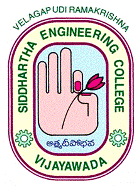
**IN**

**COMPUTER SCIENCE AND ENGINEERING**

by

Sri Jayanth Javvaji

208W1A0278

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**Department of Electrical And Electronics Engineering**

**V.R.Siddhartha Engineering College**

**(Autonomous)**

**Affiliated to Jawaharlal Nehru Technological University Kakinada, Approved by AICTE & ISO 9001: 2008 Certified**

**Vijayawada-520007**

**2023**

###### CERTIFICATE

This is to certify that the Internship report entitled “ **”** beingsubmitted by “**Sri Jayanth Javvaji (208W1A0278)**” is work done by him and submitted during 2022– 2023 academic year, in partial fulfillment of the requirements for the award of the degree of **BACHELOR OF TECHNOLOGY in ELECTRICAL AND ELECTRONICS ENGINEERING,** at **“Hindustan Aeronautical Limited (HAL) , Bengaluru ”** from **25/05/23** to **22/06/23 .**

Department Internship CoordinatorHead of the Department

**DECLARATION**

I hereby declare that the dissertation entitled **<Internship Project Title>** submitted for the B.Tech Degree is my work and the dissertation has not formed the basis for the award of any degree, associates, fellowship or any other similar titles.

Place: Vijayawada <Student Name>

Date: <Reg No:>

INTERSHIP CERTIFICATE ISSUED BY COMPANY

COMPANY PROFILE and EXTERNAL GUIDE DETAILS

ACKNOWLEDGEMENTS

This page is optional. It is where you may put your personal word of thanks to anyone who helped you throughout your work.

ABSTRACT

Unmanned Aerial Vehicles (UAVs), commonly known as drones, have emerged as a pivotal technology in defense systems, significantly transforming the landscape of modern warfare. The use of UAVs in defense operations offers numerous advantages, including enhanced situational awareness, reduced risks to human personnel, and expanded operational capabilities. UAVs enable real-time aerial surveillance, reconnaissance, and intelligence gathering, providing commanders with critical information for effective decision-making. These aerial platforms offer the ability to reach remote or hostile areas, monitoring enemy activities, and gathering valuable data for mission planning and execution.

The purpose of this project is to retrieve, process, and analyse data from a UAV's onboard data recorder . The information includes flight characteristics such as altitude, actuator locations, speed, and wheel positions, among others. The file has a particular format that is utilised to process the binary data since it is in binary format.

In this project, Python is used to analyse the data, create a GUI, and produce time series graphs. This programme makes use of libraries like tinkter to create the GUI, matplotlib to plot the data, openpyxl to manipulate excel files, pandas for data frames and and struct have been used to convert between different data types.. Using the openpyxl package, the processed data is then written to an excel file.

### Eighth and Ninth Page

In this page, a table of contents, list of tables, list of figures, and photographs and notation must be provided.

Important Note:

* **All the above pages are to be numbered in Roman numerals of lower case. Ex. i,ii,iii,iv,…**
* **The document pages must be numbered using numbers i.e. 1,2,3……**

### Arrangement of Chapters depending upon the Internship project

The following is suggested format for arranging the project report matter into various chapters:

1. Introduction

This chapter must describe introduction, Problem statement, scope and objective of your project.

1. Literature Survey/Existing System **if any**
2. Software Requirement Analysis
   * + Functional requirements definitions
     + Nonfunctional requirements definitions

4. Software Design

The design part must include the following items

* + - DFDs in case of Database projects
    - UML diagrams. This UML diagrams must include the following

Class Diagrams

Interaction diagrams-Sequence and Collaboration diagrams

Object Diagrams

Usecase diagrams

* + - Control Flow diagrams
    - Database Design

For database projects, the report must include the following items.

E-R Diagrams

1. Technology/Methodology

* Define the modules and their functionalities

1. Coding

Consist of coding or code outline for various files

Explain each class with functionality and methods with input and output parameters

For Database projects, the report consisting of

* + - * + Tables – explaining all fields and their data types
        + Stored procedures (PL/SQL)

7. Testing **if any**

Various test cases (two or three) for black box and white box testing

8. Output Screens / Results

Should include all user interfaces and output screens.

9. Conclusion

11. References

12. Appendices (if any).