Visvesvaraya Technological University

"Jnana Sangama", Belagavi-590018, Karnataka, India.

Centre for Distance and Online Education (CDOE)

A Mini Project (OBCA506/ OBCD506) Report on

PROJECT TITLE

Submitted in partial fulfillment of the requirements of the 4th Semester in

Bachelor of Computer Applications in Data Analytics/ Data Science

Submitted by

STUDENT NAME
USN:

Under the Guidance of

Dr.SWAMY L N
Assistant Professor
Dept. of Computer Applications
VTU CDOE, Mysuru-570029

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VISVESVARAYA TECHNOLOGICAL UNIVERSITY
Dept. of Computer Applications (Programme name)
Centre for Distance and Online Education (CDOE)
Sathagalli, Mysuru – 570029

March-2026

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DECLARATION

I, **STUDENT NAME,** student of 5th semester, **Dept. of Computer Applications (Programme name) Centre for Distance and Online Education (CDOE) VTU Mysuru,** bearing **USN** hereby declare that the Project (Course Code) entitled **"PROJECT TITLE"** has been carried out by me under the guidance of **Dr.Swamy L N**, Assistant Professor, Dept. of Computer Applications, VTU-CDOE, Mysuru-570029**,** submitted in partial fulfillment of the requirements for the 5th Semester of **Programme name)** by the **Visvesvaraya Technological University, Belagavi** during the academic year 2025-2026. The report has not been submitted to any other University or Institute for the award of any other degree, diploma, or fellowship etc.

Place: Mysuru
Date:

STUDENT NAME
USN:

Signature

Visvesvaraya Technological University

"Jnana Sangama", Belagavi-590018, Karnataka, India.

Centre for Distance and Online Education (CDOE)

CERTIFICATE

This is to certify that Student Name bearing USN has satisfactorily completed the Mini Project (OBCA506/ OBCD506) entitled Topic in the academic year 2025-26 as prescribed by VTU CODE for 4th Semester of Computer Applications (Programme name). This is certified that all the corrections/suggestions indicated during Internal Assessment have been incorporated in the report. The report has been approved as it satisfies the academic requirements in respect of project work prescribed for the Master of Computer Applications degree.

Signature of Guide **Dr.Swamy L N** Assistant Professor Dept. of Computer Applications, VTU-CDOE, Mysuru-570029.	Signature of Program Coordinator **Dr.Swamy L N** Program Coordinator, , Dept. of Computer Applications, VTU-CDOE, Mysuru-570029.

EXTERNAL VIVA

Name of the Examiners	Signature with date
1.	
2.	

Acknowledgements

I take this opportunity to sincerely record my gratitude to those who have made this project report possible.

First and foremost, I thank ***God Almighty*** *for the blessings he has bestowed upon me and for giving me the strength, wisdom, health, courage, and confidence to achieve this work.*

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I express my sincere thanks to and ***Dr.Swamy L N, Program Coordinator,*** *Dept. of Computer Applications, VTU-CDOE, Mysuru-570029, for the support and cooperation during the period of this work.*

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Above all, I praise God, the almighty for providing me this opportunity and granting me the capability to proceed successfully.

Name

USN:

Abstract

TABLE OF CONTENTS

LIST OF TABLES AND FIGURES

Chapter 1

Introduction

In the following sections, a brief introduction and the problem statement for the work has been included.

1.1 Project Introduction

As estimated by John et al. in [1], ……..The detailed review of related techniques has been given in [2, 3].

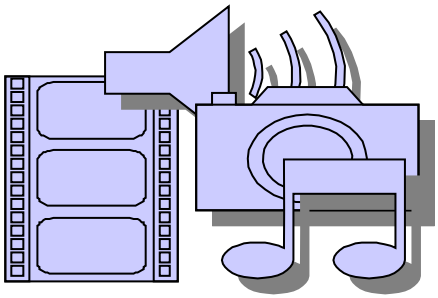

Figure 1.1 Wrapper method for feature selection

1.2 Problem Statement

The problem statement for the present work can be stated as follows:

…..

1.3 Objectives

Chapter 2

Literature Survey/ Background

In the present times, research work is going on in context of ……In this chapter some of the major existing work in these areas has been reviewed.

Chapter 3

Requirements and Methodology

Figure 4.1 Filter method for feature selection

$$RMSE = \sqrt{\frac{(p_1-q_1)^2+\ldots+(p_n-q_n)^2}{n}} \quad (4.1)$$

Chapter 4

Software Design

Table 4.1 Pseudo code of the ABC algorithm

Input.
D- the dataset, *k*-the number of clusters and α-the fuzzifier

begin

1. Initialize *Z* by choosing *k* points from *D* randomly;
2. Initialize *W* with $w_{jh} = \frac{1}{d}(1 \le j \le k, 1 \le h \le d)$;
3. Estimate *U* from initial values of *W* and *Z* according to Eq. 2.7.
4. Let *error = 1* and $Obj = E_{\alpha,\varepsilon}(W,Z)$;
5. ***while*** *error > 0* ***do***
6. Update *Z* according to Eq. 2.6 ;
7. Update *W* according to Eq. 2.5;
8. Update *U* according to Eq. 2.7;
9. Calculate $NewObj = E_{\alpha,\varepsilon}(W,Z)$;
10. Let *error* = | *NewObj – Obj*|, and then *Obj <= NewObj*
11. ***end while***
12. Output *W, Z* and *U*

End

Chapter 5

Implementation

Chapter 6

Testing and Results

Chapter 7

Conclusion and Future Work

References

[1] N. K. Kanhere and S. T. Birchfied, "Real-time incremental segmentation and tracking of vehicles at low camera angles using stable features," *IEEE Trans. Intell. Transp. Syst*., vol. 9, no. 1, pp.148-160, March 2008 **(Example : Journal papers)**

[2] K. Onoguchi, "Moving object detection using a cross correlation between a short accumulated histogram and a long accumulated histogram", Proc. 18th Int. Conf. on Pattern Recognition, Hong Kong, August 20 - 24, 2006, vol. 4, pp. 896 – 899 **(Example : Conference papers)**

[3] T. H. Cormen, C. E. Leiserson, R. L. Rivest and C. Stein, "Introduction to Algorithms", 2nd ed., The MIT Press, McGraw-Hill Book Company, 2001 **(Example : Text Book/ Magazine)**

[4] Open Source Computer Vision (OpanCV) [Online]. Accessed on 21st April 2022: http://opencv.willowgarage.com/wiki/ **(Example : Website)**