ವಿಶ್ವೇಶ್ವರಯ್ಯ ತಾಂತ್ರಿಕ ವಿಶ್ವವಿದ್ಯಾಲಯ

("ಎ ಟಿ ಯು ಅಧಿನಿಯಮ ೧೯೯೪" ರ ಅಡಿಯಲ್ಲಿ ಕರ್ನಾಟಕ ಸರ್ಕಾರದಿಂದ ಸ್ಥಾಪಿತವಾದ ರಾಜ್ಯ ವಿಶ್ವವಿದ್ಯಾಲಯ)

## Visvesvaraya Technological University

(State University of Government of Karnataka Established as per the VTU Act, 1994)

"Jnana Sangama" Belagavi-590018, Karnataka, India

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**Dr Swamy L N**
**Program Coordinator**

VTU/MYS/CDOE/CA/2025-26/81

Date: 07-01-2026

# Circular

Subject: Submission of Mini Project Synopsis – 3rd Semester PG Diploma Programmes.

All students of 3rd Semester Online Degree PG Diploma Programmes (July 2023/ JAN 2024 Batch) –PG Diploma Programmes (AI & DS / CS & CC / Big Data Analytics / Software Testing) are hereby informed that the deadline for submission of the Mini Project Synopsis is 15 January 2026.

Students are instructed to submit the synopsis in the prescribed format to their respective internal project guides or upload it on the designated Learning Management System (LMS) within the stipulated time.

Please note that no submissions will be accepted after the deadline under any circumstances.

Students are advised to treat this matter as urgent and final.

Program Coordinator

PROGRAMME CO-ORDINATOR
COMPUTER APPLICATIONS
Visvesvaraya Technological University
Centre for Distance and Online Education
MYSURU-570 029

To:
All students of 3rd Semester Online Degree PG Diploma Programmes (July 2023/ JAN 2024 Batch).

Copy to:
1. The Registrar, VTU Belagavi for kind information.
2. The Registrar(Evaluation), VTU Belagavi for kind information
3. The Director, VTU CDOE, Mysuru for kind information.
4. The Deputy Director, VTU CDOE, Mysuru for kind information.
5. The Assistant Director, VTU CDOE, Mysuru for kind information.
6. VTU CDOE office.

Enclosures:
1. Mini Project Synopsis Format.

# Format for submission of Mini project synopsis

Synopsis, preferably, should be of about 3-4 pages.

- The content should be as brief as is sufficient enough to explain the objective and implementation of the project.
- The write up/document must adhere to the guidelines and should include the following:

Following contents have to be taken into consideration in synopsis:

**Abstract:**

(Should not exceed 1 page)

**Motivation:**

(Should not exceed 1 page)

**Literature review:**

(With cons and pros of existing methods in tabular form)

**Problem formulation/Objectives:**

**Methodology/ Planning of work:**

(Methodology will include the steps to be followed to achieve the objective of the project during the project development.)

**Facilities required for proposed work:**

(Software/Hardware required for the development of the project.)

**References and bibliography:** The complete list of books (chapter listing, topic listing), website links (complete URLs) and research papers (title and authors, year of publications) have to be mentioned.

**Sample format of References:**

REFERENCES

[1]    S. M. Metev and V. P. Veiko, Laser Assisted Microtechnology, 2nd ed., R. M. Osgood, Jr., Ed.  Berlin, Germany: Springer-Verlag, 1998.

[2]    J. Breckling, Ed., The Analysis of Directional Time Series: Applications to Wind Speed and Direction, ser. Lecture Notes in Statistics.  Berlin, Germany: Springer, 1989, vol. 61.

**The students should be able to answer the following set of questions at the time of submission of the synopsis (if asked):**

**Question 1:-** Explain in at least 100 words the reasons, why should the department approve your project?

**Question 2:-** What are the strengths and limitations of your proposed work?

**Question 3:-** Explain in at least 100 words what will be the positive impact of the project on society/academics/college/industry.

## SPECIFICATIONS FOR SYNOPSIS

1. The synopsis shall be computer typed (English- British, Font -Times Roman, Size-12 point) and printed on A4 size paper.

2. The Synopsis shall be typed on one side only with 1.5 space with a margin 1.25" (3.5 CM) on the left, 1" (2.54 CM) on the top, right and bottom.

3. In the synopsis, the title page [Refer sample sheet (Cover page)] should be given first. This should be followed by index, notations/nomenclature.

4. The diagrams should be printed on a light/white background; Tabular matter should be clearly arranged.

5. The caption for Figure must be given at the BOTTOM of the Fig.

6. The caption for the Table must be given at the TOP of the Table.

7. The Bibliography/References should be written in IEEE format.

# Visvesvaraya Technological University

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

# Centre for Distance and Online Education (CDOE)



*A*

## Mini Project Synopsis

*on*

## "PROJECT TITLE"

*Submitted in partial fulfilment of the requirements of the 4ᵗʰ Semester in*

## BACHELOR OF COMPUTER APPLICATIONS

## (Data Analytics/Data Science)

*Submitted by*

## STUDENT NAME
## USN:

*Under the Guidance of*

## Name

Designation
Dept. of Computer Applications
VTU CDOE Mysuru-570029

## VISVESVARAYA TECHNOLOGICAL UNIVERSITY

## Dept. of Computer Applications
## VTU CDOE Mysuru-570029

## January-2025

# Table of Contents

# Chapter 1

# Introduction and Problem Statement

## (2 to 3 pages)

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

## 1.1 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:

…..

**Chapter 2**

# Background/ Literature Survey

## (2 to 3 pages)

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

# Objectives

The objectives of the proposed work are as follows:

**3 to 5 Objectives in point wise**

**(1 page)**

# Chapter 4

# Hardware and Software Requirements

4.1 Hardware Requirements

| Sl. No | Name of the Hardware | Specification |
|---|---|---|
| | | |
| | | |
| | | |

4.2 Software Requirements

| Sl. No | Name of the Software | Specification |
|---|---|---|
| | | |
| | | |
| | | |

# Chapter 5

# Possible Approach/ Algorithms

## (2 to 4 pages)



**Figure 4.1** Filter method for feature selection

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

**Table 4.1** Pseudo code of the ABC algorithm

---

**Input.**

$D$- the dataset, $k$-the number of clusters and $\alpha$-the fuzzifier

**begin**

1. Initialize $Z$ by choosing $k$ points from $D$ randomly;
2. Initialize $W$ with $w_{jh} = \frac{1}{d}(1 \leq j \leq k, 1 \leq h \leq d)$;
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**

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# 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)**