**BIRLA INSTITUTE OF TECHNOLOGY & SCIENCE, PILANI**

**Work Integrated Learning Programmes Division**

**Post Graduate Program**

**in**

**Artificial Intelligence and Machine Learning**

**Guidelines for preparation of the Final Report**

Some formats are provided for preparation of the abstract, cover page, title page, certificate from the Supervisor, and reference / bibliography. The student **should adhere** to these formats while preparing the report. A checklist of items to be included in the Final Report is also provided. One submission of a Project Report from a group is expected. The following sequence should be followed in the presentation of the Final Report:

1. Cover Page
2. Title page (inner cover)
3. Acknowledgements
4. Certificate from the Mentor
5. Dissertation Abstract
6. List of Symbols & Abbreviations used
7. List of Tables
8. List of Figures
9. Table of contents
10. **Chapters 1, 2, 3, etc. (Refer to following Chapter Design for details)**
11. Conclusions / Recommendations
12. Directions for future work
13. Bibliography / References
14. Appendices
15. List of Publications/Conference Presentations, if any.
16. Duly Completed Checklist

**Chapter Design:**

**The chapters of the report should typically contain the following items**

1. Problem statement (what is the problem being addressed)
2. Objective of the project
3. Background of previous work done in the chosen area (Literature Review)
4. Machine Learning process flow (Consolidated Approach / Solution Architecture)
5. Resources needed for the project, including people, hardware, software, etc.
6. Potential data challenges & risks in doing the project
7. Detailed Plan of Work
8. Pre-Processing Steps (Data processing/Feature preprocessing/Outlier detection & Visualization for Summarization)
9. Machine Learning Modeling & Techniques Applied
10. Code & Screenshots (Full screenshot without cropping the system date-time)
11. Interpretation
    * Justification of Measures / Metrics used
    * Project output in terms of above measures/metrics
    * Visualization Plots
12. Future Work & Extension or Scope of improvements

**Checklist of items for the Final report**

1. Is the Cover page in proper format? Y / N
2. Is the Title page in proper format? Y / N
3. Is the Certificate from the Mentor in proper format? Has it been signed? Y / N
4. Is Abstract included in the Report? Is it properly written? Y / N
5. Does the Table of Contents page include chapter page numbers? Y / N
6. Does the Report contain a summary of the literature survey? Y / N
   1. Are the Pages numbered properly? Y / N
   2. Are the Figures numbered properly? Y / N
   3. Are the Tables numbered properly? Y / N
   4. Are the Captions for the Figures and Tables proper? Y / N
   5. Are the Appendices numbered? Y / N
      1. Does the Report have Conclusion / Recommendations of the work? Y / N
      2. Are References/Bibliography given in the Report? Y / N
      3. Have the References been cited in the Report? Y / N
      4. Is the citation of References / Bibliography in proper format? Y / N

**Note: A copy of this checklist should be included as the last page of the Final report. This checklist, duly completed and signed by the student, should also be verified and signed by the evaluators. Evaluators are requested to ensure that the students have submitted their reports properly.**

**Illustrative examples of citation of bibliography / references:**

1. Book:

A. Gelb, Applied Optimal Estimation. Cambridge, M.A.; M.I.T. Press, 1974.

2. A paper in a Conference or Symposium Proceedings edited and published by a book publishing company:

R.E. Kalman, ‘New Methods in Wiener Filtering Theory’, in Proc. First Symposium on Engineering Applications of Random Function Theory and Probability’ J.L. Bogdanoff and F. Kozin, Editors. New York; Wiley, 1963, pp 270-388.

3. A Journal Paper:

R.E. Kalman and N.S. Pucy, ‘New results in linear filtering and prediction theory’, Trans. ASME, J. Basic Eng., Vol. 83-D, pp. 95-108, Mar. 1961.

4. A Conference Paper:

M. Vidyasagar and N.K. Bose, ‘Input-output stability of linear systems defined over measure spaces’, in Proc. Midwest Symp. Ciro. Syst., Montreal, P.O. Canada, Aug. 1975, pp 394-397.

5. A Ph.D. thesis or Dissertation:

A.C.G. Viera, ‘Matrix orthogonal polynomials, with applications to autoregressive modeling and ladder forms’, Ph.D. Dissertation, Stanford Univ., Stanford, CA, Dec. 1977.

6. A Private Communication:

W.M. Wonham (1982) Private Communication.

**I. Format of the Cover Page of the Dissertation**

(Title of the Capstone Project)

CAPSTONE PROJECT

Submitted in partial fulfillment of the requirements of the

Post Graduate Certification Program

in

Artificial Intelligence and Machine Learning

By

(Name of the student)

(BITS ID No.)

Under the supervision of

(Name of the Mentor)

Project work carried out at

BIRLA INSTITUTE OF TECHNOLOGY AND SCIENCE

Pilani (Rajasthan) INDIA

(Month, Year)

**II. Format of the Title Page (inner cover page) of the Dissertation**

PCAM ZC321 CAPSTONE PROJECT

(Title of the Project)

Submitted in partial fulfillment of the requirements of the

PGP - Artificial Intelligence and Machine Learning

By

(Name of the student)

(BITS ID No.)

Under the supervision of

(Name of the Mentor)

Project work carried out at

BIRLA INSTITUTE OF TECHNOLOGY AND SCIENCE

PILANI (RAJASTHAN)

(Month, Year)

**III Format of Certificate from the Supervisor**

**BIRLA INSTITUTE OF TECHNOLOGY AND SCIENCE, PILANI**

**CERTIFICATE**

This is to certify that the Capstone Project entitled\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

and submitted by Mr./Ms.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ ID No.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

in partial fulfillment of the requirements of PCAM ZC321 Capstone Project, embodies the work

done by him/her under my supervision.

Place : \_\_\_\_\_\_\_\_\_\_\_\_\_\_ Signature of the Mentor

Date : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Name : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**IV. The following format for Dissertation Abstract should be used**

**BIRLA INSTITUTE OF TECHNOLOGY & SCIENCE, PILANI**

**SECOND SEMESTER 2019-20**

**PCAM ZC321 CAPSTONE PROJECT**

Project Title : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Name of Mentor : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Name of Student : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

ID No. of Student : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

## **Abstract**

(Contents of the abstract is to be given here)

##### **Abstract (in about 500 words)**

**Key Words:**

(***Note:*** *The Abstract should briefly describe the work done with respect to the goals, in about 500 words. The Abstract in the above format should be included in the bound Report, after the Acknowledgements and immediately before the Table of Contents.).*