**DYNAMIC CLUSTERING FOR ACOUSTICAL TARGET TRACKING IN WIRELESS SENSOR NETWORKS**

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**A PROJECT REPORT**

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*In partial fulfillment of the Requirements for the Degree*

*of*

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**BACHELOR OF TECHNOLOGY**

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BONAFIDE CERTIFICATE

Certified that this project report titled “**DYNAMIC CLUSTERING FOR ACOUSTICAL TARGET TRACKING IN WIRELESS SENSOR NETWORKS”** is the bonafide work of **“S. XXXX [Reg No: RA161100801000X], M. YYYY [Reg No: RA151100801000X], N. ZZZZ [Reg No: RA151100801000X], O. WWWW [Reg No: RA151100801000X],** who carried out the project work under my supervision. Certified further, that to the best of my knowledge the work reported herein does not form part of any other thesis or dissertation on the basis of which a degree or award was conferred on an earlier occasion for this or any other candidate.

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**ABSTRACT**

An abstract is not an introduction. It summarizes the main highlights of your thesis, including the results. The abstract should not exceed 2 pages typed with double line spacing, Font Style Times New Roman and Font Size 12 and not include any citations or figures. The abstract should briefly: Describe the problem and why it is being investigated, Summarize the primary methods used in your thesis, Describe the major results of the thesis, Summarize the conclusion of the results and the implications of your thesis

**ACKNOWLEDGEMENT**

The acknowledgement shall be brief and should not exceed one page, typed in double spacing. Any faculty name mentioned in acknowledgement should have titles as Mr. / Ms. / Dr.

**Author**

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**ABBREVIATIONS**

**AI** Artificial Intelligence

**CPS** Cyber-Physical System

**GUI**  Graphical User Interface

**LIST OF SYMBOLS**

^ Conjunction

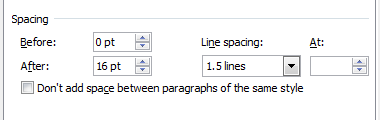
**CHAPTER 1**

**INTRODUCTION**

Give a space before the keyword “CHAPTER”. Give a space before and after the chapter title. The chapter and titles should be in times new roman 16 font and all other contents should be in times new roman 12 font size, in 1.5 line spacing.

Every paragraph should have 0 pt before spacing, 16 pt after spacing. Every title 1.1, 1.2, 1.2.1 should have 0 pt before spacing and 16 pt after spacing.

See the diagram below. Add 0 point spacing before diagram and 16 point spacing after diagram. Figures has to be quoted inside the text as (Figure 1.1).



**Figure 1.1:** Format

* 1. **OVERVIEW OF DATA**

There is no need of tab spacing before of start of any paragraph. After writing 1.1 give a tab spacing and write the title

**1.1.1 SUBTITLES**

Split the title and subtitle according to your project domain. A sample table is inserted below. The table has to be quoted inside the text as (Table 1.1).

**Table 1.1:** An example table

|  |  |  |
| --- | --- | --- |
| Chapter heading | : | CHAPTER 1 INTRODUCTION |
| Division heading | : | 1.1 OUTLINE OF THEISIS |
| Sub-division heading | : | 1.1.1…………………..  1.1.2………………….. |

Tables should be numbered above and figures to be numbered below

**1.2 BACKGROUND**

All the titles and subtitles to be made bold. Follow the format for writing the document and proceed with the same.

For inserting any equation Equations appearing in each Chapter or Appendix should be numbered serially, the numbering commencing afresh for each Chapter or Appendix. Thus for example, an equation appearing in Chapter 2, if it happens to be the eighth equation in that Chapter should be numbered (2.8) thus:

r

(2.8)

While referring to this equation in the body of the thesis it should be referred to as “Equation (2.8)”. (Without quotes). The equation tab to be used from Insert🡪equation.

**CHAPTER 2**

**LITERATURE STUDY**

**2.1 WORKS RELATED TO SFSDFS**

The literature has to be written as given here. The papers have to be quoted in square brackets. The same numbering should be followed in reference chapter and the details of the paper discussed should be given in references chapter. Do not refer to the author names anywhere in the literature. Do not write the paper title, year of publication etc etc in the literature study. Divide your overall work into logical portions, and then develop each portion as a chapter. The logical order is likely to be different from the chronological order you completed the work. Each chapter may be further divided into several divisions and sub-divisions. No bulletin to be used. Only numbering has to be used. Each point should have 0 spacing before and 16 spacing after.

1. Each chapter should be given an appropriate title.
2. Tables and figures in a chapter should be placed in the immediate vicinity of the reference where they are cited.
3. Footnotes should be used sparingly. They should be typed single space and placed
4. Directly underneath in the very same page, which refers to the material they annotate.

A summary of proposals of various collaborative filtering identifies similar users or similar content for recommendation. The various algorithms to assess collaborative filtering RS is given in [1]. Collaborative filtering is combined along with machine learning approaches namely: Self–Organizing Maps (SOM) and Case–Based Reasoning (CBR) [2].

**CHAPTER 5**

**CONCLUSION**

The conclusion chapter in some sense comprises the “introduction written backwards.” The conclusion should include the following: Review: “Tell the reader what you just told them.” Refresh the reader’s memory about the contents of each preceding chapter at a level of approximately one to two sentences per chapter. The review can be very effective at enabling the reader to understand the overall scope of your work. Conclusions: Summarize the salient contributions of your work. Justify that your work constitutes a contribution to the literature worthy of awarding a degree.

**CHAPTER 6**

**FUTURE ENHANCEMENT**

Suggest how it would make sense to extend your work in the future. This may include opportunities for confirming or relaxing assumptions required within the scope of your work or applying your work to related research

**CHAPTER 7**

**REFERENCES**

Within the text, references should be cited in **numerical order** according to their order of appearance. The numbered reference citation within text should be enclosed in square brackets. Example: It was shown by Prusa [1] that the width of the plume decreases under these conditions. In the case of two citations, the numbers should be separated by a comma [1,2]. In the case of more than two references, the numbers should be separated by a dash [5-7]. How to include references is given below: where to place comma, colon, quotes has to be given more importance.

[1] Lin, Z., “An empirical investigation of user and system recommendations in e-commerce,” Decision Support Systems, 68, pp. 111-124, 2014.

[2] Lu, J., Wu, D., Mao, M., Wang, W., and Zhang, G., “Recommender system application developments: a survey,” Decision Support Systems, 74, pp. 12-32, 2015.

[3] Edmunds, A., and Morris, A, “The problem of information overload in business organisations: a review of the literature,” International journal of information management,20(1), pp. 17-28, 2000

[4] Berghel, H., “The Future of Digital Money Laundering. Computer,” 47(8), pp. 70-75, 2014.

[5] Pajala, T., Korhonen, P., Malo, P., Sinha, A., Wallenius, J., and Dehnokhalaji, A., “Accounting for political opinions, power, and influence: A Voting Advice Application,” European Journal of Operational Research, 266(2), pp. 702-715, 2018.

**APPENDIX**

Appendices are provided to give supplementary information, which if included in the main text may serve as a distraction and cloud the central theme under discussion. Common examples of information included in appendices are listing of computer programs used to obtain your results, documentation of experimental setups, standards required for your work, tables of raw data, and part drawings. The Program/Code has to be included only in Appendix.

**PAPER PUBLICATION STATUS**

Mention either one of the following:

Publication process not yet started

Submitted to a conference waiting for approval

Submitted to a journal waiting for approval

Submitted to a conference - rejected

Submitted to a journal - rejected

Submitted to a conference - accepted

Submitted to a journal - accepted

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A separate plagiarism report format work document is shared to you all. Once the plagiarism is done, ask the programmer who have taken report for you to fill the data in the word document. Get the attestation from the programmer and your guide. Reports greater than 10% of plagiarism and without attestation either from programmer or guide will not be signed. Plagiarism report is added separately. Attach this document at the end of the report. Thus both the similarity index page and the report need to be attached in the report.