Project Requirements

Term project can be seen as an exercise for graduate students to prepare themselves for papers and patent publishing which is an expected outcome of your perspective degree.

The term project is building upon and complementing the material covered in class. You will be working with other class members as part of a team. Teams will be formed during the third class, in plenty of time for you to meet, plan, and work with other members of your team. Some class time may be set aside for team meetings. Projects must culminate with a presentation for the class and the submission of a final report.

A set of project ideas is in a separate document. You may select one of the suggested projects below, or you may devise your own comparable project. All projects must be approved by the instructor. Teams must submit a well-organized proposal of about a page in length. The proposal should clearly describe the project to be undertaken, including the topic to be covered, any investigation, development, or experimentation to be conducted, the expected results.

IMPORTANT DATES

Budget your time wisely for the team project. Plan a time-table for your project and take pains to observe the deadlines.

Team Forming: Week #1

Ideas search: Weak #2

You can send me short emails of idea(s) you want to work on and I will help you choose

Pitching ideas Week #3

With your team members, negotiate/decide the title of the group project and decide a team lead. Each team lead sends an email containing topic and names of teammates (each team has 2-3 people)

Send email to myself no later than Midnight Thursday, providing your idea(s) and why you think it is interesting (1 email per team).

Informal Project Proposals: Week #4 (With Mideterm#1)

- objective
- what is the problem
- why this is a project related the this class

Formal Proposal: Week #5

Each team writes a <u>formal</u> proposal of "what" your group is going to do and "how". The proposal should contain:

1. Title page, preface, acknowledgements, table of content, list of tables/figures, abstract

2. Introduction

- ☐ objective
- ☐ what is the problem
- ☐ why this is a project related the this class
- ☐ statement of the problem
- ☐ area or scope of investigation

3. Theoretical bases and literature review

- ☐ definition of the problem
- ☐ theoretical background of the problem
- ☐ related research to solve the problem
- ☐ …..

4. Hypothesis (or goals)

5. Methodology

Project defense: Week 11

See next section for details

Final Report and Material Due: 3-days after Final Exam.

In addition to the final report, this includes all source code (if any), result, slides, etc.

Everything if electronic format: (.docx for document & .pptx for slides)

See report guidelines section next for final report format

PRESENTATION GUIDELINES

Plan to give a 20 minute presentation, with about 5 minutes time for questions and discussion. Presentations should be self-contained, and should be clear and precise. Briefly introduce the topic including any background information, describe the investigation, development, or experimentation that was conducted, and provide any demonstrations developed as part of the project, or describe the results of the investigation or experimentation. The following format is suggested:

(1)   Title. Name the project and all the team members.

(2)   Outline. Summarize the full presentation.

(3)   Introduction. Introduce the purpose and goals of the project. Provide any background material necessary to understand the presentation.

(4)   Investigation, development, or experimentation conducted. Describe the actual work performed during the project.

(5)   Results. Show any demonstrations developed or results achieved during the project.

(6)   Conclusion.

(7)   Questions and discussion.

FINAL REPORT GUIDELINES

Each term project will result in a detailed 10-20 page written technical report. The project report should be neat, readable, and self-contained. Also, it should be written with the readers in mind. Any class member should be able to understand your report, and benefit from the results you obtain. Therefore, you should include adequate references and/or background materials and you should use tables, diagrams, graphs, figures, and portions of printouts to enhance readers' comprehension of your project.

The following format is suggested. You don't have to follow it exactly. Some sections may not be needed, or additional sections may be necessary. In all cases, please type and paginate your report!

(1)   Abstract. It comes first in your report, but you write it last.

(2)   Summary. Gives succinct information on the purpose, methods, results and conclusions reported.

(3)   Introduction. Include background material and discuss the scope and limitations of your project.

(4)   Discussion. The body of your report. This includes the methodology used. Be sure to fully describe any figures, tables or diagrams you include.

(5)   Results.

(6)   Conclusions.

(7)   Recommendations, especially for future work and unsolved problems.

(8)   References (must always be included), annotated if possible.

(9)   Appendices, including supporting material as needed.

Do not submit complete computer outputs or source code in the report. Relevant excerpts from program listings or output should be included, but reduced to the size of the rest of the report and containing either as figures or tables in the text or as an appendix.

GENERAL GUIDELINES

Please provide 1 printed copy of the written report on 8.5 x 11" (standard letter-size) white paper, stapled in the upper left corner. No plastic, cardboard, cellophane covers or binders please.

In addition: please provide a soft copy of: The report (doc, docx) and all documentation you wish to include + presentation slides (ppt, pptx) + code (if any) + output samples (if any)

Grading of written reports and presentations will be based upon substantive content, appropriate organization and use of allotted report size or presentation time, and effectiveness of the presentation or report. Multiple errors in grammar and spelling are unprofessional and detract from the clarity of your report or presentation and will be graded accordingly, so use a spell checker!