

# Guide for Writing Project Proposals

1. **Introduction (1 or 2 paragraphs)**
  - Motivation Sentence
  - Summarize the problem (1 or 2 sentences)
  - Summarize the solution (1 or 2 sentences)
  - Describe format of rest of proposal (sections, etc.)
2. **Motivation (1 to 3 paragraphs)**
  - What is the history of the problem?
  - Why is this problem interesting?
  - When and why does the problem occur?
  - Is the problem already solved? What is done now?
  - Are there any similar systems or solutions to the one you propose? If so, reference and very briefly explain them.
  - Are there are possible improvements to current solutions?
3. **Project Summary (1 paragraph)**
  - What in general will this project achieve? (Do not delve into details or timelines.)
4. **Project Details**
  - *Architecture and Environment (2-3 paragraphs + figures)*
    - Describe the project environment (software, hardware, languages, organizations, etc.)
    - Diagrams and figures are useful here if appropriate.
    - What software, hardware, or tools will you use?
  - *Implementation Issues and Challenges (2-3 paragraphs)*
    - What will be the most difficult issues and challenges in the implementation?
    - How are you using or extending current tools/systems for your problem?
    - What makes your project unique?
  - *Deliverables (3-5 paragraphs - point-form may be used for some of the description)*
    - What will the project produce? (program, report, etc.)
    - Describe in relative detail the features of each of the project's products.
    - You may wish to separate deliverables into phases and indicate optional components given time.
    - **Emphasize what your project contributes or achieves!**
  - *Timeline (1 paragraph - point-form is suitable)*
    - Provide an estimated timeline of project deliverables and important dates.
5. **Conclusion (1 paragraph)**
  - Summarize the project including the problem, motivation, and proposed solution, and re-state important (planned) contributions.
6. **References**
  - List references used to compile proposal and references that will be used for project (if already known).