



Research Proposal Assignment Due by 11:59 PM Friday, September 27, 2024

General Guidelines

- Research Proposal should be 6-8 pages including References, but not including Title page.
- Times New Roman, double spaced, 1-inch margins, headings to divide material
- 10-point type for the text portion and 12 point can be used for headings and titles
- Label all images and figures using numbers (Figure 1) with a title and a descriptive caption of what the figure/table represents
- Table titles are put above and center; figure captions are placed below the figure
- Graphs, diagrams, figures, tables, and photos can be effective, but do not overuse. Refer to them in the text and cite appropriately when they are not created by you generated by your work
- Follow "writing tips for technical reports" posted for the literature review assignment in terms of using technical language, grammar, and punctuation.

- Title Page
 - Identifying information includes project title, author (ORS scholar) name, mentor name, faculty advisor name, lab name if available, and date submitted

- Abstract
 - Outline the essence of the research project in around 150-200 words
 - a. Purpose or Motivation for the Study
 - b. Statement of the problem
 - c. Research design or approach
 - d. Expected outcomes

Try to keep it to 1-2 sentences for each of the above items. [You will need to add Results/Findings and Conclusion to the abstract when you write up your research paper.]

- Introduction and Motivation
 - Introduction
 - Describe the general area of your assigned research project
 - Cite works that are most recent and most relevant to your project. Use IEEE style for citations/references; use EndNote, Mendeley or Zotero as citation tool. If you need help with literature search or using a citation software, please reach out to Bette Finn at GT library. (Literature search workshop materials posted in the shared Dropbox folder.)
 - Background and Significance
 - Explain what is lacking, missing, or inadequate in the research area
 - Provide an overview of work other researchers have done in the area for background and context. Include appropriate citations
 - Use technical language
 - Include literature review (You may utilize the work you completed for literature review assignment for this section)

- Statement of the Problem or Research Question and Significance
 - Motivation for the project
 - Provide context or framework for the work
 - List problem statement
 - State existing gaps and establish the significance of the proposed project
 - Include implications, scope, and limitations of the proposed work



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- Research Design or Methodology
 - Originality of the proposed approach
 - Rationale for the methods of data collection and analysis
 - Materials and equipment used (for example):
 - For experimental work: equipment, materials, and methods
 - For modeling paper: assumptions, mathematical tools, and methods
 - For computational work: inputs, computational tools, and methods
 - Specifically state your role (third person, passive voice) and expected contributions in the project (write this in future tense as work may not have been accomplished at this point; use third person, passive voice)
- Expected Outcomes
 - Reiterate the goals and objectives of this work and articulate what is expected to be measured or found
- Expected Timetable
 - Present a timetable with specific and measurable goals from August 2024 to April 2025. Sample timetable is posted on the slides from the research proposal workshop. (It is understandable that this timetable may have to be revised in the future depending on research results.)
- References (need to have cited at least 6-8 references)
 - Follow standard IEEE guidelines for formatting and citing references (use referencing software)

Submission

Email the document to shanthi@ece.gatech.edu as a PDF attachment by the due date. Include "ORS 2024-25 Research Proposal Assignment" in the subject of the email.

Note:

Adherence to expected format will be noted as part of your ORS performance evaluation. This includes the following:

- Formatting guidelines
- Type of document (PDF is the only accepted file type)
- Mode of submission (by email, and as a PDF attachment – not a shared PDF link)
- Timeliness of submission (document should be received by the due date/time specified)
- Completeness of the assignment (all required sections should be present in the document)