NITT UG Research Fellowships/Scholarships

Recommendations To Students (and Faculty)

HOW TO/WHAT TO WRITE IN THE PROPOSAL

The Proposal should be in PPT format - 7 slides max

- 1st Page should have Project Title, Student name, Department, Email, Mobile and Project Advisor and <u>One-Paragraph Abstract</u>

- The proposal should contain the following

  - State what the project is and Explain why the project is important

  - Describe the project: what exactly are you planning to do

    - Describe your idea and approach to solve the problem. (Novelty, innovation)

    - What's the overall scope of the project and your aims to complete in a timely fashion

      - Some kind of (rough) project timeline

  - Summarize relevant literature and/or previous work in the area. Any challenges

  - Any charts/figures/Literature citations are not part of the 7 slides and include as Addendum to Proposal

Things for the student to consider

- **Talk to as many faculty as possible. If you have an original idea, discuss with appropriate faculty about this or find from them suggestions for relevant project. Be passionate about what you want to pursue**

- **As you work on the project idea, write down in word/google doc (2-3 pages) the following:**

  - **Abstract/Summary:** In one paragraph, summarize your proposal. Give the reader a general sense of the field, the problem or idea your work will address, and how you will accomplish this project. What will you do (think broadly for this section) - And how will you do it?

  - **Significance**: Does the project address an important problem or a critical barrier to progress in the field? Is there a strong scientific premise for the project? If the aims of the project are achieved, how will current practice be improved?
    - Make the reader appreciate the challenge of the problem you wish to solve
    - Describe prior art and its limitations
    - Describe how a solution will have high impact in the field

  - **Methods and Approach:** Describe what you will actually do for your project and why you will take this approach. You need to include a rough timeline that details the work that you will complete during 3r and 4th year. What are the overall strategy, methodology, and proposed analyses to accomplish the specific aims of the project?
    - What will you actually do? What data will you be using?
    - How will you collect it? How will you analyze it? What materials or resources will you need? What are the major steps to complete this project? Why did you select the particular methods/techniques you've described?

  - **Innovation**
    - State the innovations of your study
    - Make the reader appreciate that these are somewhat new/novel ideas
    - Show how your innovations address limitations of prior art

The project proposal should convince the reader that your overall research design and methods of analysis will enable you to solve the problem you have identified. It is critical that the research design, methods and approach section is reasonably well-thought out, clear, and logically organized. This demonstrates to your reader that you know what you are going to do and how you are going to do it. Overall, you want to leave your reader feeling confident that you have what it takes to get this project completed in a timely fashion.

Selection Criteria

- A Well thought-out project and plan

- Originality and innovation

- Completeness

- Achievability of goals within the timeline (don't be too ambitious) – be realistic

- How important is the problem you're solving (to the world)

- Can you make an impact in the area

- Have you identified tools and materials (and any material budget) to complete the project

Consider reviewing some of these references as you write your proposal

- https://ugresearch.ku.edu/student/fund/ugra/proposal
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- https://students.dartmouth.edu/ugar/research/guidelines-and-resources/research-proposal-guidelines
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- https://pressbooks.bccampus.ca/jibcresearchmethods/chapter/14-3-components-of-a-research-proposal/
-
- https://www.kingston.ac.uk/faculties/science-engineering-and-computing/research/research-degrees/proposal/
-
- https://www.montana.edu/usp/apply/research-proposals.html
-
-https://www.uts.edu.au/research-and-teaching/graduate-research/future-research-students/apply-research-degree/write-research-proposal
-
- https://engineering.jhu.edu/doctor-of-engineering/admissions/proposal-guidelines/