GUIDE · PHD RESEARCH PROPOSAL

Research proposal for PhD *admission*

A research proposal for PhD admission is a short plan of the research you want to do, submitted with your application and discussed at the interview.

Last updated 2026-11-06

In the university admission notices we reviewed, mostly for 2025–26, length limits ran from **a 1,000-word summary to 3,000 words or more**, and most asked for the same parts: **a working title, background, research questions or objectives, a literature review ending in a gap, the methodology, expected outcomes, a timeline and references**. The interview panel reads it before it meets you, so write a proposal you can defend line by line.

KEY POINTS

- **A research proposal for PhD admission is a short plan of the research you want to do,** submitted with your application and discussed at the interview.
- **Word limits differ by department.** In the admission notices we reviewed, they ran from a 1,000-word summary (JNU's Centre for Historical Studies) to at least 3,000 words (JNU's Centre for Chinese and South-East Asian Studies), and Jamia allows up to 20 pages.
- **Most notices ask for the same parts:** a working title, background, research questions or objectives, a literature review ending in a gap, the methodology, expected outcomes, a timeline and references.
- **Proposal or synopsis?** The proposal is the shorter plan you write for admission. The synopsis is the fuller plan your research committee approves after admission.
- **For the interview, plan about ten slides for a ten-minute talk,** then cut to the panel's limit: Delhi University's Computer Science department allowed at most five slides and four minutes for its 2025–26 Phase II interviews.

What is a research proposal for PhD admission?

The UGC's PhD Regulations, 2022 define a research proposal as "a brief write-up giving an outline of the proposed research work" that you submit with your application for registration. In practice, departments use it to screen applicants and to steer the interview. Where a university runs its own entrance test, the regulations give the test 70% of the weight and the interview 30%; JNU's 2025–26 prospectus applies the same 70:30 split to NET percentiles and the viva-voce, while JRF holders are selected on the viva-voce alone.

After admission, the regulations make your Research Advisory Committee responsible for reviewing the proposal and finalising the topic. Many universities call that fuller, post-admission document the synopsis. This guide covers the admission-stage proposal; for the registration document, see our PhD synopsis format guide.

What format and word limit do universities ask for?

Each department sets its own rules, and they differ a lot. These are the proposal rules for eight programmes at four institutions, taken from their own admission documents.

Research proposal rules in recent PhD admission notices

INSTITUTION	WHEN	LENGTH	SECTIONS OR FORMAT NAMED
University of Delhi, Department of English	Required at application; no proposal, no interview call	1,500–2,000 words	Not specified in the bulletin
University of Delhi, Faculty of Education	Required at application; the 30-mark interview is based on it	Not stated	Area, title, rationale, brief literature review, objectives, methodology, references
University of Delhi, Department of Anthropology	Uploaded in advance and brought to the interview	About 2,000 words	Research questions, hypothesis, universe of study, methodology, conceptual or theoretical framework
University of Delhi, Department of Computer Science	Brought to the interview (2025–26, Phase II)	Not stated	Proposal plus an optional talk of at most 5 slides and 4 minutes, and a CV of up to 2 pages
Jamia Millia Islamia	Submitted at the department, 10 hard copies	Up to 20 pages	Introduction, literature review, research objectives, methodology, expected outcomes, expected timelines, references
JNU, two centres	Historical Studies: at the viva-voce, six copies; Chinese and South-East Asian Studies: required, stage not stated	1,000-word summary; at least 3,000 words	Historical Studies: not specified; Chinese and South-East Asian Studies: theme, statement of the problem, preliminary literature review, research methodology
TISS	Uploaded with the application; the interview focuses on it	At least 2,000 words	Introduction, research objectives, significance of the study, research methodology

Summarised on 2026-09-29 from each institution's own document, linked in the first column. The Delhi and Jamia documents are for 2025–26, and the JNU rules were rechecked against its 2026–27 prospectus on 2026-11-06 (unchanged); the

TISS rule is from its current admissions page, which does not state a year. We are not affiliated with any of them. Rules change every cycle, so read your department's current notice.

What is the JNU PhD research proposal format for 2026-27?

JNU's 2026–27 PhD e-Prospectus admits through three routes: the NET percentile (70%) with a viva-voce (30%); the JRF, with selection on the viva-voce alone; and, for the School of Engineering only, the GATE score (70%) with a viva-voce (30%). Only NET results from June 2025 onwards count. For every school, the prospectus says: "A research proposal has to be submitted by the candidate at the time of viva-voce," along with a brief note on your research interests and testimonials from two persons.

JNU centres that set their own research proposal rule, 2026-27

CENTRE OR SCHOOL	LENGTH	WHEN, AND WHAT TO INCLUDE
Historical Studies	1,000-word synopsis	At the viva-voce, six copies
Chinese and South-East Asian Studies	At least 3,000 words	Theme, statement of the problem, preliminary review of literature, research methodology; when to send it is not stated
French and Francophone Studies	1,000 words, in French	At the interview
Studies in Science Policy	1,800 to 2,000 words	At the interview
Philosophy	2,000 to 3,000 words	When you submit the application
Political Studies	Not stated	After qualifying NET and before the viva-voce
Zakir Husain Centre for Educational Studies	At least 3,500 words	Not stated
Media Studies	1,000 to 1,500 words	Not stated
Study of Law and Governance	1,000 words with a bibliography	For the interview
Computer and Systems Sciences, Engineering, Environmental, Physical and Life Sciences, Management	No rule of their own	The university rule applies: bring the proposal to the viva-voce. Life Sciences admits JRF holders only and asks for a synopsis after admission.

From JNU's 2026–27 PhD e-Prospectus, checked on 2026–11–06; the centre rules are word for word the same as in 2025–26. We are not affiliated with JNU.

For the School of Computer and Systems Sciences and the School of Engineering, which set no length, use the core sections in the next table, keep the proposal to one clearly bounded problem, and be ready to explain it at the viva. After admission, JNU's PhD ordinance requires the research proposal or synopsis to be approved by your Centre's Faculty Committee within two semesters of finishing coursework, and admission is confirmed only after that approval and coursework with a minimum CGPA of 5.0 (4.5 for reserved categories). A Research Advisory Committee then reviews the proposal, finalises the topic and hears a progress presentation every six months.

JNU status on 6 November 2026

A JNU notice of 28 October 2026 put the NET-category viva-voce on hold until UGC, CSIR and NTA clarify how long NET scores stay valid; JRF and GATE vivas were to go ahead as scheduled. Check jnu.ac.in for the latest notice before you prepare.

Across these notices the same core keeps appearing. This table lists each part, what it must answer and which of the notices above name it; your department's own template always comes first.

The parts of a PhD research proposal, and which notices ask for them

SECTION	WHAT IT MUST ANSWER	NAMED IN
Working title	Which problem, with which approach, in which setting?	Jamia; DU Education
Introduction or rationale	Why does this problem matter now, and to whom?	Jamia; TISS; DU Education; JNU (statement of the problem)
Research questions or objectives	What exactly will you find out? Two to four, each testable.	Jamia; TISS; DU Education; DU Anthropology
Literature review and gap	What has been tried, grouped by approach, and what is still missing?	Jamia; DU Education; JNU
Methodology	For each question: data, method, baseline and how you will measure success	Jamia; TISS; DU Education; DU Anthropology; JNU

SECTION	WHAT IT MUST ANSWER	NAMED IN
Significance or expected outcomes	What will the work produce, and who can use it?	Jamia (outcomes); TISS (significance)
Timeline	What happens in which months?	Jamia
References	Recent, peer-reviewed sources in one citation style	Jamia; DU Education

DU Anthropology also asks for a hypothesis, the universe of study and a conceptual or theoretical framework. If a notice gives no word split, spend most of your words on the literature review and the method.

How do you write a research proposal for PhD, step by step?

1

Read the notice and the faculty pages

Note the word limit, the sections, and whether the proposal is uploaded or brought to the interview. Read recent papers by two or three faculty members whose work is close to yours.

2

Choose a question, not an area

"AI in healthcare" is an area. "Can a chest X-ray model tell when to refer a case to a radiologist?" is a question. Our PhD topics in computer science are written in this form.

3

Read 15 to 25 recent papers and find the gap

Start from one or two surveys, put the papers in a small table (method, data, result, limitation), and write the gap in two sentences that point to that evidence.

4

Plan the method question by question

Name the data you can access, the method, the baseline you will compare against and the metric that decides success.

5

Add outcomes, a timeline and references, then cut to the limit

A shorter proposal that fits the limit beats a longer one that ignores it. Cite every source and run a similarity check.

What does a sample PhD research proposal outline look like?

An illustrative outline, not a real proposal

The topic below was written for this guide as a neutral computer science example. It is not a student's proposal or work we delivered, and it is deliberately different from the outline in our synopsis guide.

- **Working title:** Faithful cross-lingual question answering over Indian public documents with retrieval-augmented generation.
- **Background:** People ask about public schemes in Hindi or Marathi, while many source documents are in English. Language models answer fluently but can state things the documents do not support.
- **Research questions:** (1) How much accuracy does cross-lingual retrieval lose against same-language retrieval for Hindi and Marathi questions? (2) Which grounding methods, such as citation-constrained generation or answer verification, cut unsupported claims without cutting useful answers? (3) Can faithfulness be scored automatically in these languages in a way that agrees with human raters?
- **Literature and gap:** three strands, compared in one table: retrieval-augmented generation, multilingual language models, and hallucination detection. The gap, as the review might find it: few studies measure faithfulness when the question and the documents are in different Indian languages.
- **Methodology:** a bilingual test set of questions over public documents, each answer checked by two annotators; open 7–8B models with a multilingual retriever; same-language and English-only retrieval as baselines; answer

accuracy, citation precision, unsupported-claim rate and agreement with human ratings as metrics.

- **Expected outcomes:** an evaluation set released if licences allow, a grounded answering method with measured faithfulness, and two or three papers.

Illustrative 36-month plan for the outline above

MONTHS	WORK	QUESTION
1–6	Coursework, literature review, proposal approved as a synopsis	Groundwork
7–14	Test set, retrieval baselines, first measurements	RQ1
15–24	Grounding methods compared, first paper	RQ2
25–31	Automatic faithfulness scoring checked against human ratings, second paper	RQ3
32–36	Thesis writing and submission	All

References the outline would start from, in IEEE style:

1. Y. Huang and J. Huang, "A survey on retrieval-augmented text generation for large language models," *ACM Comput. Surv.*, vol. 58, 2026, doi:10.1145/3805774.
2. L. Qin *et al.*, "A survey of multilingual large language models," *Patterns*, vol. 6, 2025, Art. no. 101118, doi:10.1016/j.patter.2024.101118.
3. L. Huang *et al.*, "A survey on hallucination in large language models: Principles, taxonomy, challenges, and open questions," *ACM Trans. Inf. Syst.*, vol. 43, 2025, doi:10.1145/3703155.

Writing your proposal?

Share your area, the university you are applying to and its deadline. The consultation is free.

Message before 7 pm for a reply today.

Free consultation → WhatsApp

How is a research proposal different from a PhD synopsis?

Some universities use the two words for the same document, so check your ordinance. Where they differ, this is how.



● Diagram Research proposal and synopsis compared, where your university treats them as two documents.

PhD research proposal and PhD synopsis compared

ASPECT	RESEARCH PROPOSAL (ADMISSION)	SYNOPSIS (REGISTRATION)
When	With the application, before or at the interview	After admission, often after coursework
Who reads it	The admission or interview panel	Your Research Advisory Committee
Supervisor	Often not assigned yet	Written with your supervisor
Length	From 1,000 words to 20 pages in the notices above	Longer; see the synopsis guide
Literature	Enough to show a real gap	A structured review, usually with a comparison table
Method	The approach and the data, in outline	Per objective, with baselines, metrics and a work plan

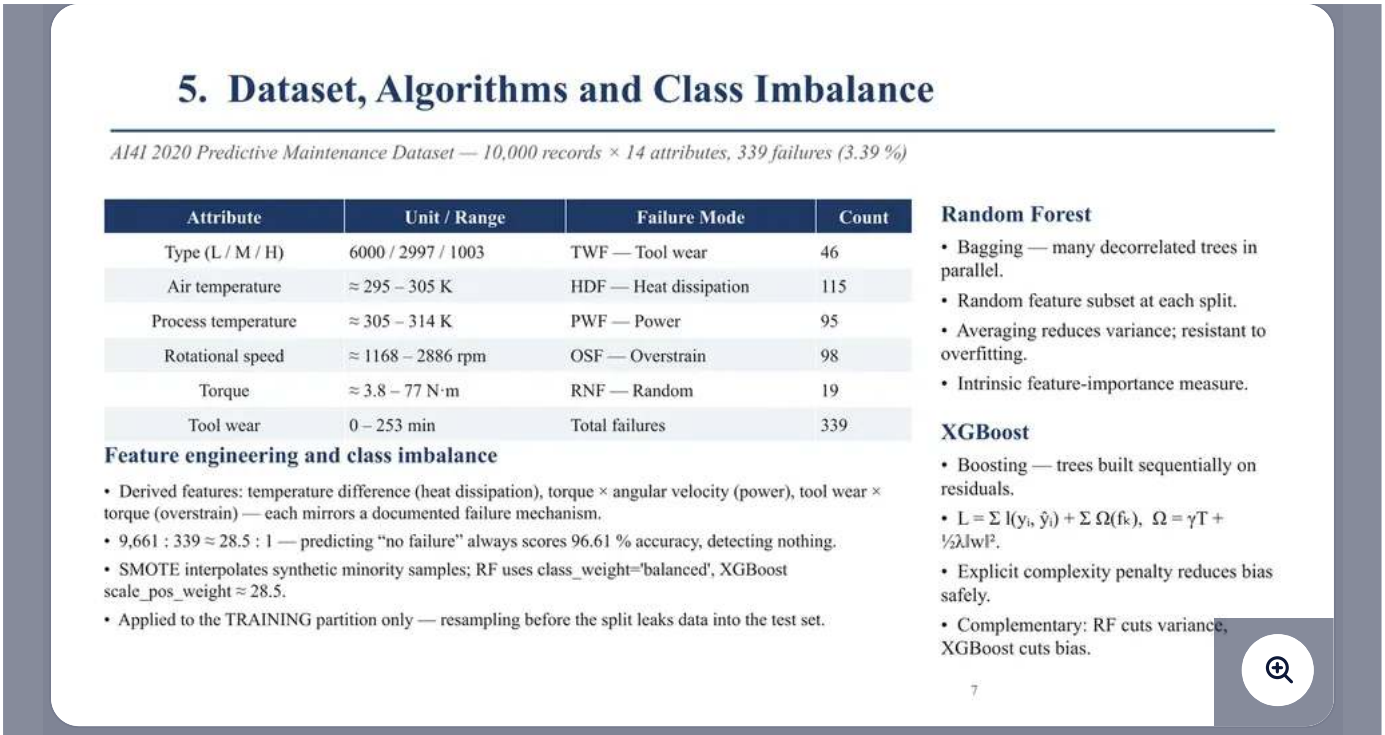
ASPECT	RESEARCH PROPOSAL (ADMISSION)	SYNOPSIS (REGISTRATION)
Its job	Show you can do research that fits the department	Get the topic approved

How do you present a research proposal at a PhD interview?

Plan about ten slides for a ten-minute talk, one idea per slide, then cut to whatever limit the panel sets.

1. **Title:** the working title and the research area.
2. **The problem:** why it matters now, with one fact or example.
3. **What is known:** three or four key papers, grouped by approach.
4. **The gap:** one sentence, with the evidence.
5. **Research questions or objectives.**
6. **Method:** data, approach and how you will measure success.
7. **Framework figure** of the proposed approach.
8. **Timeline** for three years.
9. **Expected outcomes** and planned papers.
10. **Why you, why here:** your preparation and how the topic fits the department.

Limits can be tight. Delhi University's Computer Science department allowed **at most five slides and four minutes** for its 2025–26 Phase II interviews. For a five-slide version, merge slides 2 and 3, 4 and 5, 6 and 7, and 8 to 10, and keep the title on the first. Bring printed copies if the notice asks: Jamia asked for 10 and JNU's Centre for Historical Studies for six.



5. Dataset, Algorithms and Class Imbalance

AI4I 2020 Predictive Maintenance Dataset — 10,000 records × 14 attributes, 339 failures (3.39 %)

Attribute	Unit / Range	Failure Mode	Count
Type (L / M / H)	6000 / 2997 / 1003	TWF — Tool wear	46
Air temperature	≈ 295 – 305 K	HDF — Heat dissipation	115
Process temperature	≈ 305 – 314 K	PWF — Power	95
Rotational speed	≈ 1168 – 2886 rpm	OSF — Overstrain	98
Torque	≈ 3.8 – 77 N·m	RNF — Random	19
Tool wear	0 – 253 min	Total failures	339

Feature engineering and class imbalance

- Derived features: temperature difference (heat dissipation), torque × angular velocity (power), tool wear × torque (overstrain) — each mirrors a documented failure mechanism.
- 9,661 : 339 ≈ 28.5 : 1 — predicting "no failure" always scores 96.61 % accuracy, detecting nothing.
- SMOTE interpolates synthetic minority samples; RF uses class_weight='balanced', XGBoost scale_pos_weight ≈ 28.5.
- Applied to the TRAINING partition only — resampling before the split leaks data into the test set.

Random Forest

- Bagging — many decorrelated trees in parallel.
- Random feature subset at each split.
- Averaging reduces variance; resistant to overfitting.
- Intrinsic feature-importance measure.

XGBoost

- Boosting — trees built sequentially on residuals.
- $L = \Sigma\, l(y_i, \hat{y}_i) + \Sigma\, \Omega(f_k),\ \Omega = \gamma T + \tfrac{1}{2}\lambda\|w\|^2$.
- Explicit complexity penalty reduces bias safely.
- Complementary: RF cuts variance, XGBoost cuts bias.

7

Seminar slide A dense slide from a delivered M.E. / M.Tech Stage-I seminar, not a PhD talk. For an interview, split a slide like this into data and method.

Expect questions such as: Why this problem? What if your main idea does not work? Where will the data come from? What is the smallest result that would still be worth a paper? Why this department?

Why are PhD research proposals marked down?

Interview boards say what they look for. Delhi University's Faculty of Education marks the understanding of theory, awareness of methodological alternatives, relevant field and policy developments, and the overall quality of the proposal. Its Anthropology department assesses theoretical understanding, methodological rigour, conceptual clarity and research aptitude. Proposals usually lose marks for the opposite:

- **An area instead of a question**, so nobody can tell what you will actually find out.
- **A gap nobody can check**, such as "little work has been done", with no papers cited.
- **A method with no data, baseline or metric.**

- **No fit with the department**: a topic none of the faculty works near.
- **Ignoring the notice**: over the word limit, or missing a required section.
- **Copied or uncited text.**
- **A plan too big for three years**, or one you cannot explain when questioned.

What should you check before you submit?

- ✓ **Right document, right format:** the department's own sections, word limit and file or print format.
- ✓ **A title that names the problem, the approach and the setting.**
- ✓ **Two to four research questions**, each one testable.
- ✓ **A gap backed by recent, peer-reviewed papers**, all cited in one style.
- ✓ **A method per question**: data you can access, baseline and metric.
- ✓ **A timeline that fits three years**, including coursework.
- ✓ **A fit with at least one faculty member's research.**
- ✓ **A similarity check done**, and every sentence one you can explain at the interview.

Once admitted, the proposal grows into the synopsis; our PhD guidance covers that stage, from the literature review to the committee presentation.

Frequently asked questions

What is the format of a research proposal for PhD?

Most notices ask for a working title, an introduction or background, research questions or objectives, a literature review that ends in a gap, the methodology, expected outcomes, a timeline and references. Jamia Millia Islamia's 2025–26 proforma follows this pattern, with a title, then introduction, literature review,

research objectives, methodology, expected outcomes, expected timelines and references; some departments add a hypothesis or a theoretical framework.

How many words should a PhD research proposal be?

It depends on the department. In the admission notices we reviewed, limits ran from a 1,000-word summary (JNU's Centre for Historical Studies) and 1,500 to 2,000 words (Delhi University's English department) to at least 2,000 (TISS) and at least 3,000 (JNU's Centre for Chinese and South-East Asian Studies), while Jamia allows up to 20 pages. Write to your own department's limit. Keep the literature review focused on your gap.

Is a research proposal the same as a PhD synopsis?

Sometimes the words are used for the same document. Usually, though, the proposal is the shorter plan you write for admission and defend at interview, and the synopsis is the fuller plan your research committee approves after admission, written with your supervisor.

How do I present my research proposal in a PhD interview?

Plan about ten slides for a ten-minute talk, or fewer if the panel sets a limit: Delhi University's Computer Science department allowed at most five slides in four minutes for its 2025–26 Phase II interviews. Expect questions on your gap, your data, your method and why you chose that department.

Do I need a supervisor before writing a PhD research proposal?

Not always. Many applicants write it before a supervisor is assigned; Delhi University's Computer Science notice, for example, scheduled a separate interaction with supervisors after the interviews. Read the recent work of two or three faculty members and make sure your topic fits the department.

Can someone help me write my PhD research proposal?

Guidance is common and useful: narrowing the question, building the literature review and planning the method. The proposal must still be yours to explain and defend at the interview, with every source cited and your university's rules followed.

What does JNU ask for in a PhD research proposal?

JNU asks every PhD applicant to submit a research proposal at the viva-voce. Some centres set a length: a 1,000–word synopsis in six copies for Historical Studies, at least 3,000 words for Chinese and South-East Asian Studies, and 1,800 to 2,000 words for Science Policy. Computer Science and Engineering set none. The JNU section above lists each centre's rule.

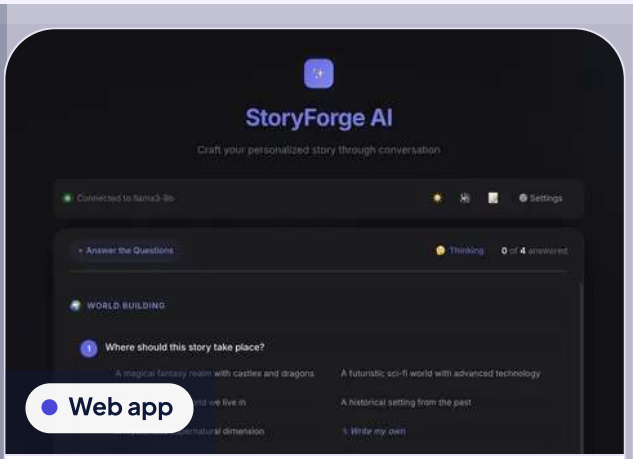
DELIVERED WORK

The same building blocks, from delivered M.Tech work

Not PhD proposals: M.Tech and M.E. projects with a framework figure, a comparison with existing systems and a Stage-I seminar. Shown with names and institute details removed.



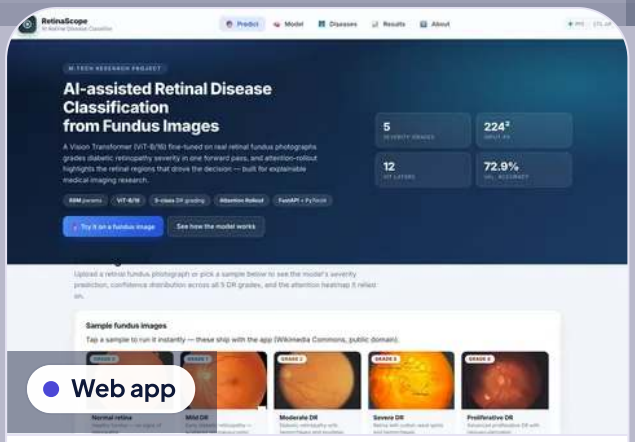
M.E. / M.Tech Machine learning · Manufacturing



M.Tech Generative AI · NLP

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