IITK-RISE Winter Internship 2026

Application Guide for Students

Program Overview

RISE @ IITK is a research internship program aimed at giving meritorious foreign students an opportunity to work closely with an IITK faculty.

For the virtual winter internship, a list of available projects from IITK faculty (along with eligibility criteria and other details) can be seen at the end of this guide. Students can apply to the projects aligning with their interest by filling the application form.

Students who successfully complete the winter virtual internship 2026 will be given preference for the summer offline internship selection in 2027.

Duration of the IITK-RISE Winter Internship 2026: For 4 weeks, starting December 2026.

Support

For this online internship, students will not receive a stipend. Students will have to make sure that they have access to high-speed internet to enable virtual meetings with the IITK faculty.

Eligibility

- Applicants should be non-Indian nationals
- Must be enrolled in a bachelors or masters program at their Home University
- Students should have at least one semester left in their study after the internship at IITK
- Have a strong academic record and an interest in research
- Meet the requirements of the chosen project, as mentioned in the project list
- Should be comfortable with the English language

Application Procedure

Students will apply to this program only through the online application form (https://forms.gle/1kz5gze9Er7gV6e76). Once the form is submitted, no changes can be made, so make sure to review carefully before submitting.

Please note that each student should only apply once. Multiple applications will be rejected.

Students can apply to a maximum of two (2) projects.

Documents Students will Submit During Application

1. Statement of Purpose (400 words max) that mentions your research interests and your motivation for participating in this internship
2. Updated CV (in no particular format)
3. All post-secondary official academic records/transcripts from Home University (translated into English, if applicable)
4. Proof of nationality

5. Letter of recommendation (LOR) from a faculty/supervisor at the Home Institution/University. Should the faculty wish to email the LOR directly to us, they may do so by sending an email to oir@iitk.ac.in. Please note that the LOR needs to be on the letterhead of the faculty and has to be signed by them to be considered valid.
6. Passport size photo

Students will be selected by the faculty based on the documents submitted. Faculty may also choose to schedule video interviews or any additional screening method.

After the completion of the winter internship, based on the feedback (satisfactory/unsatisfactory) from the faculty, students will be given certificates of completion by the Office of International Relations at IITK.

Key Dates

Application Opens: 16 September 2026

Application Deadline: 7 October 2026 (11:59 p.m. IST)

Notification of Result: By the last week of October

Contact

For any queries, please reach out to Ms. Prerna Gupta at oir@iitk.ac.in

Important Links

IIT Kanpur website: https://iitk.ac.in/

Office of International Relations, IITK website: https://iitk.ac.in/oir/

IITK-RISE Internship Program: https://www.iitk.ac.in/oir/iitk-rise

IITK-RISE Winter Internship Application Form: https://forms.gle/1kz5gze9Er7gV6e76

RISE @ IITK Winter Virtual Internship 2026 - List of Available Projects

Faculty Name	Departmental Affiliation	Research Project/Area/Group	Description of research project/area/group	Lab Webpage	Who Can Apply	Additional Requirements for Applicants (degree/knowledge/skill)
Amarendra Edpuganti	Sustainable Energy Engineering	Development of Micro EV	Interns will work on developing a Micro EV Car	https://home.iitk.ac.in/~amarendrae/	Both Bachelors and Masters students	Mechanical/electrical/battery systems
Debdeep Dutta	Biological Sciences & Bioengineering	Development and Disease Biology		https://www.dbiolab.com/	Only Masters students	
Nivedita Bhaktha	Management Sciences & Cognitive Sciences	Applied Statistics & Data Visualization	We plan to study the relationship between, test anxiety, response process, and response accuracy in math test using international large scale assessments data.	https://sites.google.com/view/niveditabhaktha/home	Both Bachelors and Masters students	Familiar with regeression analysis
Salman Ahmad Khan	Chemical Engineering	Computational catalysis, material discovery, co2 capture, and scientific machine learning			Both Bachelors and Masters students	
Mugundhan	Space, Planetary & Astronomical Sciences & Engineering	Space and Astronomical Instrumentation			Both Bachelors and Masters students	
Tanmoy Maiti	Materials Science & Engineering	Machine learning aided design of thermoelectric materials and devices		https://home.iitk.ac.in/~tmaiti/	Only Masters students	
Rajesh Ranjan	Aerospace Engineering	Neural operators for fluid dynamics applications	Aeroscience Computations & Analysis Lab	https://home.iitk.ac.in/~rajeshr/	Both Bachelors and Masters students	Knowledge in CFD, AI/ML
D. Chaitanya Kumar Rao	Aerospace Engineering	Atomization, Laser-matter interaction, and Combustion	Our group is focused on the interdisciplinary research centered on liquid atomization and laser-matter interaction. The primary aim is to understand and control the fast physical processes and functionalities of liquids. We approach this problem using a variety of experimental methods (using lasers and high-speed cameras) and explain the complex multiphase and interfacial phenomena.	https://chaitanyarao.in/	Both Bachelors and Masters students	

Nagaditya Poluri	Electrical Engineering	Microwave Circuits lab	The focus area for this internship is developing AI/ML based methods for RF circuit design	https://home.iitk.ac.in/~npoluri/	Both Bachelors and Masters students	Python programming desired.
Chandraprakash	Mechanical Engineering	Acoustic, electromagnetic, and thermal waves	Scientific AI	https://chandraprakashster.wixsite.com/chan	Only Masters students	Scientific AI
Saravanan Matheshwaran	Biological Sciences & Bioengineering	AMR and Microbial pathogenesis	Our research focuses on understanding the molecular mechanisms underlying antimicrobial resistance (AMR), microbial adaptation, and pathogenesis in clinically important bacterial and fungal pathogens. We investigate how pathogens sense and respond to environmental stresses, antibiotics, and host-associated conditions to survive and establish persistent infections. Our work integrates molecular microbiology, microbial genetics, genomics, transcriptomics, proteomics, metabolomics, and advanced imaging to dissect the mechanisms governing antibiotic resistance, DNA damage responses, biofilm formation, virulence, and cellular adaptation. We focus on multidrug-resistant pathogens, including Mycobacterium tuberculosis, Acinetobacter baumannii, Pseudomonas aeruginosa, and Bacillus subtilis, to identify novel therapeutic targets and antimicrobial strategies.	https://sites.google.com/view/saranlab/home	Only Masters students	BSc
Sana Khanum	Chemical Engineering	AI in Systems Biology			Both Bachelors and Masters students	
Anveshna Srivastava	Cognitive Science	Learning, Cognition and Technology (CLIP-Cognition, Learning & Innovation in Pedagogy Lab)	The lab focuses on uncovering the learning processes, focusing on the underlying cognitive strategies that learners employ while trying to solve a problem. We study these strategies by closely observing and studying learners' thinking and reasoning processes as they try to make sense of concepts. Our process analyses result in the discovery of learning pathways that have both diagnostic and pedagogical implications. We also study the cognitive role of different technological affordances, like Augmented Reality and Artificial Intelligence etc., with respect to their role in learning.	https://sites.google.com/view/anveshna-srivastava/clip-lab?authuser=0	Both Bachelors and Masters students	Good analytical and writing skills

Sathesh Mariappan	Aerospace Engineering	Inverse problems in optical flow diagnostics using scientific machine learning	We have developed an optical diagnostic system for heat flux measurement. The system is being upgraded to learn surface skin friction and pressure using machine learning methods. We are looking for motivated candidates to work with our team to develop the software.	https://sites.google.com/view/profsatheshmariappan/bio	Both Bachelors and Masters students	Strong programing and machine learning background with emphasize on visualization
Anurag Tripathi	Chemical Engineering	BULK SOLIDS & COMPLEX FLUIDS	Looking for suitable candidates for Pedestrian Dynamics Simulations for Crowd Motion OR Discrete Element Method Simulations for large scale Granular Flows	https://sites.google.com/view/anuragtripathi/home	Both Bachelors and Masters students	Excellent programming skills in C++/Pyhton
Kaustubh Kulkarni	MSE	Solid State Diffusion and Thermokinetics Group	Analysing the Effect of Variable Molar Volume on Interdiffusion Analysis		Both Bachelors and Masters students	Preferably Metallurgical background with a Keen Interest in Mathematics
Kaushik Bhattacharjee	Civil Engineering	Construction Safety and Road Safety			Both Bachelors and Masters students	Basic programming, statistics, ML
Vivek Verma	Sustainable Energy Engineering	Recycling and Urban Mining	Overtime, and especially in the last 5 years, countries around the world including India have started realizing that we are running short of a diverse range of crucial metals/minerals needed for enabling future technologies. This is because materials enable these technologies. Our future would be very hard to imagine without these technologies going into the future. Mining more of these metals could be one option but unfortunately not every country is blessed with all of these crucial metals/minerals needed. However, what if we improvise and find some of these crucial metals/minerals which we are throwing out? That exactly is Urban mining: to mine crucial resources from the waste today's society is generating. We aim to recover critical materials or minerals from electronics and other household/industrial wastes. Doing this we kill two birds with one stone. Not only we recover crucial resources we need, but also we mitigate the problem of unnecessary dumping these waste and polluting our soil and water.	https://publish.obsidian.md/urbanmining/Home	Both Bachelors and Masters students	Metallurgy, Chemical engineering, materials engineering, Environmental Engg

Aditya Saurabh	Mechanical Engineering	Numerical simulation of disintegrating liquid fragments	Understanding how liquid fragments undergo further breakup under the combined action of surface tension, viscous forces, and aerodynamic forces is relevant to a large number of practical applications involving sprays. The internship will involve simulation studies using open source tools.		Both Bachelors and Masters students	
Himanshi Jangir	Design	Agroecosystem Design, Food Systems Design, Agricultural Anthropology, Social Agrodesign	Documentation of global indigenous dietary practices for Women's nutritional security during pregnancy and postpartum	https://www.naturebiodesign.com	Both Bachelors and Masters students	Preferred background in Humanities, Ecology, Design, Food Sciences and nutrition
Preeti Malakar	CSE	High performance computing	Job scheduling Performance analysis of parallel programs	https://www.cse.iitk.ac.in/users/pmalakar/	Both Bachelors and Masters students	Strong programming background in C/C++ and proficiency in shell programming
Anand Kumar Jha	Physics	Quantum optics and coherence, quantum entanglement, quantum imaging, and quantum foundations.	High-dimensional quantum state detection through coherence measurement, and development of entanglement-enhanced quantum imaging systems.	https://home.iitk.ac.in/~akjha/	Both Bachelors and Masters students	Need to have background in quantum mechanics as well as optics.
Sudarshan Narayanan	Sustainable Energy Engineering	New materials and processing methods for high performance Li-/Na-ion solid-state batteries	Our research group brings together advanced materials engineering, thin-film coatings, electrochemical interfaces, and device development to support the transition toward a sustainable energy future. In particular, in the domain of energy storage, our research focuses on the design and optimization of solid-state electrolytes for next-generation Li- and Na-ion batteries through a combination of materials synthesis, first-principles modeling, and electrochemical characterization.	https://home.iitk.ac.in/~sudarshan	Both Bachelors and Masters students	Background in Physics/Chemistry/Materials Science/Chemical Engg.

Lalit Saraswat	HSS/CogSci	Evolutionary Epistemology of Perception/Cognition and Scientific Theories	Candidates may choose from these philosophical research themes/issues: - To what extent can evolutionary concepts such as variation, selection, retention, and environmental constraint explain scientific creativity without collapsing epistemic processes into biological processes? - What makes a predictive biological process genuinely cognitive rather than merely regulatory or adaptive? - How can inquiry succeed when the object of inquiry is not yet known? - Can contemporary hylomorphism explain the unity and causal organization of living beings while remaining compatible with a scientifically informed naturalistic ontology? - Can thought and conceptual cognition persist independently of linguistic capacity?	https://www.iitk.ac.in/lalit-saraswat	Both Bachelors and Masters students	Interest, conceptual clarity on epistemology