

Revised Working Paper # 21
NUST Funded Research Projects
Sponsored by Research Dte

Introduction

1. Research has always been a very important component of universities all over the world. Faculty members performing outstanding research are recognized and rewarded for their contribution towards achieving research excellence. NUST, being a research led university, fully recognizes the importance of research as well as funding the research and facilitating outstanding researchers of NUST.

2. NUST Funded Research Projects policy is in vogue since past few years, however, it is being reviewed to make the criteria more comprehensive, qualitative, catering for both faculty members and students at NUST to fund their research project from Research Dte budget.

Category for Funding of Research Project

3. The NUST Funded Research Project grant is now being re-designed for the following:

i. Grant for Young Researchers

- a. To assist young/ newly inducted faculty member/ fledgling researchers with no research project experience at national or international level.
- b. Applied research project which caters for national need.

ii Grant for Concept Note Development for Industry

- a. Concept Note / Idea to upscale into a prototype (product or service) having potential to be commercialized

iii Grant for NUST Living Lab

- a. Concept in which projects of commercial nature and those with social benefits developed by NUST faculty and UG students can be deployed on-campus for testing and cocreation with the community, before commercialization / implementation on a large scale.
- b. Supervisor of Final Year Projects (FYPs) meeting the concept of Living Lab can avail funding for Undergraduate Students

iv. Grant for Flagship Projects

- a. Large-scale projects at starting phase having potential to be commercialized and benefits for the social sector or community.
- b. Feasibility studies conducted for public and private sector organizations for policy level input.
- c. External funding is essential after completion of starting phase.

v. **Grant for Interdisciplinary Projects**

- a. Projects in which interdisciplinary industrial experts and research laboratories are being involved having industrial and research solutions with commercialization potential.

vi. **Grant for Bridge Financing**

- a. Funding of costs related to a research project awaiting release of funds/ installments

vii. **Grant for Futuristic Initiatives (New Initiative)**

- a. Funding for projects which do not pertain to above 6 x categories and highly important for NUST/ National or International level.
b. Project may have tangible outcome with commercialization potential.

Allocation of Funding against each category

4. Following formula will be implemented for distribution of funding against each category during Fiscal Year:

Category	Percentage of Funds (100%)
Grant for Flagship Projects	30%
Grant for Young Researchers	20%
Grant for Interdisciplinary Projects	15%
Grant for NUST Living Lab	15%
Grant for Concept Note Development for Industry	10%
Grant for Futuristic Initiatives (New Initiative)	5%
Grant for Bridge Financing	5%

*Allocated percentage for each category can be changed according to the discretion of Technical Review Committee

Eligibility Criteria

5. Following are the eligibility criteria for funding of research projects through Research Dte budget:

i. **Grant for Young Researchers**

- a. Faculty member should be PhD holder

- b. Faculty member as PI should be a regular NUST employee
- c. Faculty member as Co-PI can be regular / adjunct faculty / member from private / public sector
- d. Faculty member can apply during the three years of his/ her initial appointment in NUST
- e. Adjunct faculty is not eligible to apply as PI.
- f. The project must be of applied nature, addressing a local, national, or industrial need
- g. Project with industrial or external partner and/or project with potential deployment at NUST (Living Lab) will be given preference

ii. Grant for Concept Note Development for Industry

- a. All researchers are eligible
- b. External partner (public or private) or Industry is mandatory in this case
- c. Concept Note/ Idea should have potential for commercial prototype development.
- d. Concept Note/ Idea should have potential for process improvements and enhancing efficiency and effectiveness of industry

iii Grant for NUST Living Lab

- a. The grant is open for FMs in general and supervisors of UG Students
- b. The grant can cover the cost of deployment of already developed solution/ prototype on campus
- c. For UG Student, FYP will be started in the start of 6th Semester for development in 6th & 7th Semesters and deployment & testing in 8th Semester.
- d. Funds will be provided for extraordinary FYP
- e. Living Lab Project will be demand driven and a user should be onboard in the project proposal
- f. The projects will be applied in nature and will be for NUST utility/ projection.

iv. Grant for Flagship Projects

- a. Faculty members with proven research ability and have already secured funding (at least PKR 20 M) are eligible to apply for this grant
- b. NUST will provide PKR 1.0 M as seed funding for the starting phase of one year only.
- c. Project must be a large-scale having potential to be commercialized and beneficial for the social sector or community.
- d. Project must have tangible outcome with showcasing and commercialization aspect
- e. Feasibility studies/ Surveys conducted for public and private sector organizations for policy level input.
- f. External funding is an essential component in the project

v. Grant for Interdisciplinary Projects

- a. Faculty members already secured funding (at least PKR 20 M) are only eligible to apply for this grant
- b. NUST may provide PKR 1 – 2.5 M as sponsorship
- c. Project may have at least one industry partner and two research laboratories
- d. Project may have potential to solve industrial, societal or environmental problems
- e. Project may have tangible industrial solution with showcasing of commercialization aspect

vi. Grant for Bridge Financing

- a. Eligible for faculty members already serving as PI of an external project
- b. Funding from external sources is mandatory for supporting bridge financing request
- c. HR, equipment, training, and any other related costs of the project which can be re-imbursed through installments are eligible

vii. Grant for Futuristic Initiatives (New Initiative)

- a. Funding for projects which do not pertain to above 6 x categories and highly important for NUST/ National or International level.
- b. Project may have tangible outcome with commercialization potential.

Terms & Conditions

6. Funding will be provided for projects that align with the following criteria:
- a. Project should be aligned with SDGs and Research Groups' Recommendations
 - b. Funds can be used for applied research, for addressing commercial, social sectoral or national need.
 - c. FM as PI can avail maximum 1 project or as supervisor can avail maximum 2 FYP per year and FM would be employee of NUST
 - d. FM (as Co-PI and Team Members) can assist simultaneously with a maximum of 4 projects.
 - e. Adjunct faculty (as PI) are eligible for Interdisciplinary and Flagship projects only.
 - f. Project funds can be requested for UG/PG Students' projects, lab equipment for research, operational costs for research related activities, prototype development, prototype to product development, deployment costs, testing, regulatory clearances, and for other commercialization costs.
 - g. Funds cannot be requested for Faculty Honorarium, office equipment, furniture, Computer, laptop & infrastructure

- h. In case of transfer / resignation of project PI, the project may be handed over to another PI for completion. However, the same may be floated afresh to be handed over to new FM of another School / College.
- i. Project supervisor would be responsible in case of student graduation/ discontinuation of UG/PG students to complete the project.
- j. Rights with respect to research funds, equipment procured, prototype developed, or idea presented, all will remain IP of NUST.
- k. The maximum conditional grant for each project is upto 2.5 Million. (Exceptions can be taken up on cases to case basis, Principal / Commandant are requested to coordinate with Pro-Rector (RIC) prior to taking up such a case).
- l. The maximum conditional grant for FYP under NUST Living Lab is PKR 0.3 Million.
- m. PI / Supervisor of project is responsible to submit completion report duly approved by the Head of School / College.
- n. Upon completion, presentation to Pro-Rector (RIC) and relevant stakeholders clearly stating the project impact / outcomes / objectives achieved to be prepared and processed along with completion report.
- o. The supervisor will be PI of the Project and Student(s) will be team member in FYP.
- p. Proposal based on FYP will be submitted to Research Dte well in advanced of the start of 6th Semester by UG student's supervisor for funding.
- q. Supervisor (PI) of FYP will share 6 monthly report with Research Dte at the end of 6th Semester and project completion report at the end of 7th Semester of the student for FYP completion.
- r. UG Student along with Supervisor will implement the FYP in the start of 8th Semester for fine tuning, testing and deployment.
- s. After implementation of FYP at NUST site, Supervisor (PI) of FYP will demonstrate deliverables and execution of prototype at NUST site to Research Dte.

Research Project Approval

7. The composition of the Project Technical Review Committee will be as under:
- | | | |
|----|---|----------|
| a. | Pro-Rector (RIC) | Chairman |
| b. | Director (Research) | Member |
| c. | Director (ICON)/ Rep | Member |
| d. | HoD (R) from Concerned School/ College | Member |
| e. | Co-opted member by HoD (R) as subject specialist from any School/ College | Member |
| f. | Deputy Director (Projects) | Secy |

Approval from ACM

8. The working paper was recommended by 13th UCRIP meeting held on 21st January 2025 and duly approved by 70th ACM held on 19th February 2025 for implementation and immediate effect.



National University of Sciences and Technology

H-12, Islamabad, Pakistan, Phone: (051) 9085 6232 Fax: (051) 90856222

E-mail: ddproj@nust.edu.pk

PROJECT PROPOSAL FORM

1. Project Brief

- a. Project Title:
- b. Name of Institution:
- c. Duration of Project
- d. Total budget required:
- e. Category of Proposed Project (Mark ✓ at least one category):
 - (1) Grant for Young Researchers (Faculty Member)
 - (2) Grant for Concept Note Development for Industry
 - (3) Grant for NUST Living Lab
 - (4) Grant for Flagship Projects
 - (5) Grant for Interdisciplinary Projects
 - (6) Grant for UG Students
 - (7) Grant for NBC Young Researchers (Faculty Members)
- f. Major Field (Mark ✓ at least one Major Field):
 - (1) Smart Cities
 - (2) Green Energy
 - (3) Health and Well-Being, Food & Agriculture
 - (4) Transformative Technology, Innovation & Shared Value Creation
 - (5) Pakistani Society, Business & Economy
 - (6) Digital Futures
- g. Name of PI:
 - (1) Designation:
 - (2) Date of Joining NUST
 - (3) Telephone No:
 - (4) Email Address:
- h. Name of Co-PI:
 - (1) Designation:
 - (2) Organization:
 - (3) Mobile No:
 - (4) Telephone No:
 - (5) Email Address:
- i. Name of Team member / UG Student (Grant for UG Students only)
 - (1) Designation:
 - (2) Organization:
 - (3) Mobile No:
 - (4) Telephone No:
 - (5) Email Address:

2. **Collaborating Organizations**

a. **Industrial Organizations:**

Name of Collaborator	Name of Organization	Role / Contribution

b. **Academic Organizations:**

Name of Collaborator	Name of Organization	Role / Contribution

3. **Problem Statement:**

Clearly identify the research challenge, and the approach the project team will employ to address the challenge. What new information will be added to the existing pool of knowledge and describe how the proposed project builds on prior research. In case of applied research, identify the industry in Pakistan which will get benefit from the process/product.

4. **Methodology:**

Describe how the research plan will be accomplished over the two years of funding available for the proposed project, and identify appropriate milestones and anticipated deliverables

5. **Project Team, including partnerships:**

Comment on the capacity of the proposed team – including faculty expertise, collaborators, and facilities (current or anticipated) – to deliver results in timely manner. Proposed project under category 2 required expertise of MS / PhD student.

6. **Plans for Dissemination:**

Dissemination of research results is a core requirement for the proposed project. what reports or other formal mechanisms will be employed to share research results with governments, policymakers, and other stakeholders.

7. **Plans for Execution of Prototype: (Grant for UG Students only)**

Plans for execution of prototype developed from FYP and identification of location for installation and execution at NUST site.

8. **Objectives of the project:**

- a. Research Objectives
- b. Academic Objectives
- c. Industrial Objectives

9. **Outcomes of the Project:**

- a. Publications
- b. Patents
- c. Prototype
- d. Spinoff / Startup
- e. Product Development
- f. Living lab Establish / Operational Cost
- g. MS Students Graduates
- h. PhD Students Graduates

10. **Overall Budget of the Project:**

Overall Budget in PKR (M)	Budget for First Year in PKR (M)	Budget for Second Year in PKR (M)	Budget for Third Year in PKR (M)

* As per duration of the project. FM can increase /decrease number of years for budget

11. **Detailed Budget Requirement of the Project from NUST:**

Sr.	Specification	Unit Cost in PKR (M)	Total Cost in PKR (M)
a	HR Cost		
b	Lab Equipment		
c	Consumable / Supplies		
d	Services (Other Charges)		
e	Travel (National / International)		
f	Publications, Conferences, etc charges		
g	Cost for Marketing		
h	Contingency charges		
Total			

* Honorarium for PI/CO-PI is not allowed in budget of NUST Funded projects

12. **Essential Equipment Requirement of the Project from NUST:**

Sr.	Specification	Unit Cost in PKR (M)	Total Cost in PKR (M)
a			
b			
Total			

13. **Essential HR Requirement of the Project from NUST:**

Sr.	Specification	Unit Cost in PKR (M)	Total Cost in PKR (M)
a			
b			
Total			