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**Lucknow 226031**  
**(Formerly UP Technical University)**

**Policy for Accelerating Extramural Research Funding.**

**Scope**

This policy will be adopted by the constituent institutes of the University and the affiliated colleges for promotion of research and innovation by the University, from the date of approval.

**Aims of the Policy**

This Policy of the University is designed to encourage its faculty and technical staff to undertake externally-funded research projects and national/international consultancies. Research projects will provide the faculty and staff with opportunities to apply their professional expertise in practical contexts, derive monetary benefits, and generate additional resources for the development of the Institutions of the University.

**Office of Research and Development**

The Office of the Dean Research and Development of an Institution will provide administrative and managerial support for the operation of sponsored research, industrial consultancy and other R&D related activities of the Institutions of the University. It is expected to facilitate interaction with external agencies, both national and international. It will promote and manage University-Industry interaction and all externally funded research and development projects.

**Project Management**

The R&D activity aims at innovation and technological development through academic and research collaborations with universities, governments and industries to meet the immediate as well as futuristic needs of the society and industry. The scope and scale of research has substantially evolved from the era of student theses to funded projects to interdisciplinary research programs. The faculty, research staff and students conduct research with goals and objectives ranging from intellectual curiosity, addressing contemporary challenges, developing technology, or writing scholarly publications. Consequently, the Institutions of the University have facilitated a healthy ambience for research – both in terms of state-of-the-art infrastructure and scholastics. The goal is to encourage and cultivate an environment to carry out fundamental as well as applied research activities in the professional fields. Accordingly, the members of the Institutions of the University take initiative to work on local, regional, national and global challenges and to try to find amicable solutions to mitigate them by using efficient techniques.

**Research Idea**

Generate a list of best ideas from your research area in which you are interested. As a Principal Investigator (PI), you should take into account your professional interest in identifying new and important research questions. Organisation of brainstorming with a group helps in terms of idea mapping. Moreover, identifying ideas that are innovative in one is comfortable requires refinement

of research ideas in terms of its implementability within the availability of scarce resources. One could establish an internal review panel as a team to discuss the efficacy of the proposed study. The team will concentrate on the improvement of the scientific content of the proposal.

### **Funding Agency**

One needs to learn about the funding agency in terms of its mission, research priorities, available financial resources, recent awards and current announcements. Faculty should initiate interaction with the HoD/Dean and seek required information on matching the research Idea and objectives of the agency. Faculty should visit the funding agency, if necessary and volunteer to serve on the review panel. Faculty needs to read and analyse the solicitation of the agency's grant application.

The proposals include the following activities:

1. Sponsored Research Projects involving internal/external funding sources.
2. International Research Collaborations involving international funding.
3. Industry Sponsored Projects and Industrial Consultancy involving funding from industry.
4. Organizing Continuing Education Programs/ Conferences/ Seminars/ Symposia/ Workshops for dissemination of knowledge as part of the research projects.

### **Proposal Description**

*Title:* It shall be a good match to the proposed themes of the funding agency. Moreover, it should be easily remembered by the reader cum reviewer.

*Summary of the Proposal:* One needs to highlight the aims and overview of the research plan. It should demonstrate the importance of the study and generate interest to the reviewer.

*Research Statement:* Faculty should incorporate the relevance of the proposed study, the focus of the study and a rational plan to achieve the study goal(s).

*Objectives:* The proposal should establish the overall direction of the proposed study. In the case of several objectives faculty should state the action, the behaviour and the standard against which it will be measured.

*Literature Review:* Faculty needs to incorporate related work in a concise manner in the proposed study. In addition, faculty should try to advance the knowledge.

*Study Design:* It shall be simple and clear. Moreover, the design should be based on the study objectives. You may need to discuss with the expert in research methods, if necessary, to obtain suggestions on sample design, data measurement, collection and analysis.

*Ethics/ IPRs:* Funding agencies are concerned with ethical issues of the scientific experimentation on humans, animals, etc. PIs are responsible for upholding academic integrity.

*Viable research budget and term:* It consists of direct and indirect costs of the proposed study. Moreover, provide rationale for each budget item within the lines of the objectives of the study. It

is advisable to seek assistance from the concerned staff. It is necessary to check your calculations before you submit it to the funding agency.

Each funding agency has its own format and guidelines. The proposal should be submitted after thoroughly going through the guidelines. While making an estimate of the funds required for a project, the following budget heads may be taken into account: (1) Salary of Project Staff (2) Equipment (3) Consumables (4) Travel (domestic, international) (5) Contingency (6) Administrative Overheads

*Benefits to the academia and the society:* The proposed study should contribute to the knowledge base and find solutions to the society's problems. The relevant design and finding of the study should be disseminated to the targeted groups of the society. The information sharing strategy could be worked out in consultation with stakeholders. The funding agencies provide incentives to the PIs to share the findings of the study. Thus, the investigator could incorporate the cost of the dissemination in the proposed budget of the study.

### **IPR**

All IPR related issues will be governed as per the agreement between the University and the funding agency. The University has guidelines for drafting MoU/Agreement also. The project normally will be started after the receipt of funds.

### **Project Expenses**

The project expenditure for equipment and consumables will be maintained in a separate stock register by PI. The statement of expenditure and utilization certificate will be prepared at every financial year end by the designated officer and sent to the sponsoring agency. It is the responsibility of the PI to send timely reports and other deliverables to the sponsoring agency through the Dean. Statement of account to be submitted will be made available to the PI on request. After completion of the project, the final report should be submitted to the funding agency through the Dean of the Institution with a soft copy for the record of the Dean and for RTI purposes. A completion certificate should be obtained by the PI from the funding agency for successful completion of the project based on which project account will be closed with intimation to the University. The project file will be closed with the submission of the final technical and financial project report and transfer of the non-consumables to the Central stock register.

### **Procurement of Consumables**

The Consumables required for the project should be requested to the Dean R&D and can be procured with the approval of the Director of the Institution. The Institutes may identify appropriate vendors for the purchase of Consumables at selective rates on a yearly basis.

### **PhD Admission of recruited manpower**

The University encourages recruited manpower in the Projects to undertake PhD admission in their respective Institutions. In such cases, recruitment should be done in consideration of PhD ordinance of the University and registration number for such candidates will be provided by the University after necessary approvals.

## **Types of Research Projects**

### **(A) Seed Grant**

The Institutions of the University will grant new faculty for initiating research. The proposal should include a description of research that he/she wishes to conduct over the period of maximum 3 years. It is a platform meant to help new faculty to prepare for subsequent proposal submissions. Proposal will be submitted to the Dean Research and Development of the Institution. Proposal is presented by the new faculty before a committee, consisting of Dean Research and Development of the Institution. The Dean will get review comments from the subject experts. Review comments will be appropriately incorporated / addressed by the Faculty before final submission. Proposal will be presented by the faculty before a committee, consisting of Director, Dean, HOD and 2 Faculty members to be nominated by the Director. The initiation grant is proposed by the faculty member and approved by the committee. A higher amount can be approved by the committee depending on the project requirements.

### **(B) Sponsored Research Projects**

The University encourages investigation of basic and applied areas of science and technology, and high end technology development in the form of sponsored projects. Research grants for such projects are given by government agencies and industries (both national and international). These projects are usually of 2-5 years duration with periodic appraisals, while research objectives and goals may be refined along the way.

A proposal that satisfies all the conditions will be forwarded by the Dean: R&D. Any deviation from the norms will have to be discussed and explicitly approved. The approving authority for any relaxation is the Dean: R&D. The Office will make a suitable record of the proposal, and then courier the project proposal to the concerned agency along with the cover letter. Alternatively, it may be given to the PI for forwarding it to the agency. The softcopy of the proposal will be sent to the Office for records.

Sponsored project refers to one in which the PI does not charge honoraria/consultation fee. For a project sponsored by a government agency, no honorarium in any form can be claimed. Amount may be used by the PIs as approved in the respective budget head by the funding agency.

In case the Institution is awarded a sponsored project directly, or a proposal is submitted at the Institution level, the Coordinator would be identified by the Director.

### **(C) Collaborative Projects**

Faculty may also participate in collaborative projects with other domestic or foreign partners. In such projects, there must be a separate budget and scope of work statement to be done by the faculty and staff. The Institution will treat this like any other sponsored project. The Institution soon after receiving the funds from the Sponsoring Agency allows the Project Investigators to initiate the project work by duly hiring the personnel, spending on consumables, using the infrastructure and resources.

These projects are headed by a Principal Investigator (PI), and may have Co-Principal Investigators (co-PIs)/administrative PI (to operate the project, in case PI is out of station) and the deliverables are the responsibility of the PIs. For each sponsored project, the entire expenditure for the operation of the project is required to be met out of funds provided by the sponsoring agency. The responsibility for operation of the project lies with the PI. While making an estimate of the funds required for a project, the following budget heads should be taken into account: Salary of Project Staff, Equipment, Consumables, Travel (domestic, international), Contingency, and Overheads.

Collaborative projects between two or more Institutions can be submitted only after the approval of respective competent authorities. The funds will be received by the host Institution of the PI and the host Institution will have the responsibility to transfer the funds to the collaborative Institutions as specified in the project proposals. If the sponsor agrees, funds can be released by the sponsor, separately to the participating Institutions of the University.

#### **(D) Consultancy Projects**

The Institutions of the University have expertise in various research areas to provide knowledge and intellectual inputs which are of interest to the industry. It encourages its faculty to undertake consultancy work which is an important tool in industrial growth of the Country.

A consultancy project/task/work is one, where faculty and research staff provide knowledge and intellectual knowledge to industry (within India/outside India), primarily for their purposes. This is effectively a contract work in which all outputs belong to the sponsor. It is desirable that payments for consultancy be routed through the Institutions of the University. This means that whenever payments are done, they should come in the name of the Institution to the Registrar of the Institution. They will then do the needful for complying with statutory laws and then give the honorarium to the faculty/staff as the case may be.

The requirement originates from the industry concerned. The faculty is expected to estimate the time and cost required to accomplish the task. Proposal is then prepared by the PI. It should specifically mention breakup of funds, normally consultancy fee as the primary component. It may also have a budget for supporting manpower, equipment, travel contingency, University overheads and expenses for IPR (if need be).

All consultancy proposals must be sent to the Dean of the Institution for endorsement and approval along with the consultancy project agreement form. The Office will assign a unique internal number to the project proposal. The Institutions of the University normally require the cost of the consultancy project to be deposited by the client, in full, before the commencement of work. However, based on the needs of the client and circumstances, in exceptional cases, commencement of work may be permitted with payment to be made as per agreed upon milestones.

A MoU/agreement that satisfies all the conditions will be approved by the Institutions of the University. When MoU is clear from all angles and acceptable to both the parties, it is sent to the Registrar for approval along with the Note File (summary of MoU). After approval, the Director along with the witnesses may sign the MoU.

#### **(E) Testing Projects**

The word refers to examining a component or a product against a standard. Examples could be testing the strength of concrete in a construction, compaction strength of soil, calibration of pressure gauges, and chemical identification of unknown species. Testing is commonly accomplished in general-purpose laboratories and does not require elaborate preparation or data analysis.

The procedure for overall operation of the project is similar to that of consultancy projects. The MoU/agreement should be submitted to the Dean: Research & Development (after getting it forwarded by the Director of the Institute) for signature. Forwarding is required to ensure that sufficient resources are available, and the project can be executed. The Office will make a suitable record of the proposal, and then courier the project proposal to the concerned agency along with the cover letter. Alternatively, it may be given to the PI for forwarding it to the agency. The softcopy of the proposal will be sent to the Office for records. The Dean R&D is the competent authority for approving all project proposals.

### **(F) Special grants**

Sometimes, there are special grants given for purposes like grants for infrastructure improvement, lab improvement, conference (from DST/CSIR etc.), donations (e.g. alumni) etc., where no direct deliverables are envisaged. Such grants may be treated as a project for operational reasons. The decision will be taken on a case-by-case basis by the Dean R&D.

### **(G) Travel grants**

Travel support is given by the funding agency for specific travel support. All travel expenditures are paid out of this account. The Office will look at any travel advance and settlement or reimbursement of the travel expenses from such grant.

### **(H) Students Projects**

Students are generally encouraged to collaborate and assist the faculty members and the designated research professionals to carry out any research project. Normally, students work on the idea developed by the faculty or staff funded by the external agency. The results of the project are documented in the form of publications, IPRs. Sometimes, external agencies fund the project where students are allowed to participate in terms of ideas; they get the opportunity to gain guidance from experts to further work in the area.