



**Indian Institute of Technology Kanpur
Office of Research & Development**

Operational Manual for Research & Development Division

Preamble

1.	Organizational Structure	4
2.	Mission Statement	4
3.	Historical Perspective: A Bird's Eye View	5
4.	Research & Development outlook	9

Section A: The framework

5.	Office of Research and Development	10
6.	Dean, Research and Development	10
7.	Institute Research and Development Committee (IRDC)	10
8.	Research Centers	11
9.	R & D projects	12
	A. By faculty and research staff	
	a. Initiation grant	14
	b. Sponsored Research Projects	14
	c. Consultancy Projects	18
	d. Testing Projects	20
	e. Institute supported projects	21
	f. Special grants	23
	g. Travel grants	24
	h. Committee for Acquisition of Research Equipment (CARE)	24
	i. Fellowships	25
	j. Fund for Improvement of S&T Infrastructure (FIST)	26
	B. By students	
	a. POWER	26
	b. GE3 (Group on Environment & Energy Engineering)	26
10.	Center for Development of Technical Education (CDTE)	27
11.	Filing and management of Patents	28
12.	Contract, Agreements	28

Section B: Guidelines

13.	Institute's policy on Overheads and Service Tax	30
14.	Professional Development Account (PDA)	31
15.	Department Promotional Account (DPA)	32
16.	Books	33
17.	Payment of honorarium	33
18.	Entrepreneurship support through SIIC	33
19.	Intellectual Property Rights	35
20.	Stores and Purchase Manual	49
21.	Travel advance and settlement	50
22.	Project employments	50
23.	Declaration for no interest earning on bank account for grants received	58

Section C: Functions of the Office of R&D

24.	Project Management Cell	60
25.	Personnel and Establishment Management Cell	62
26.	Stores and Purchase Management Cell	64
27.	Advances Management Cell	67
28.	MoU Cell	69
29.	R&D Accounts Cell	72
30.	Research Space Management Cell	73
31.	RA hostel management	74
32.	Ranking database	76

Section D: Initiatives by the Office of R&D

33.	IITK REACH (REsearch And CHallenges) Symposium	77
34.	Institute lecture series	77
35.	Science Day	77
36.	Publications	
	a. Directions	78
	b. Notes on Engineering Research and Development (NERD)	78
	c. Convocation report	78
	d. Annual Report	79

Section E: Automation

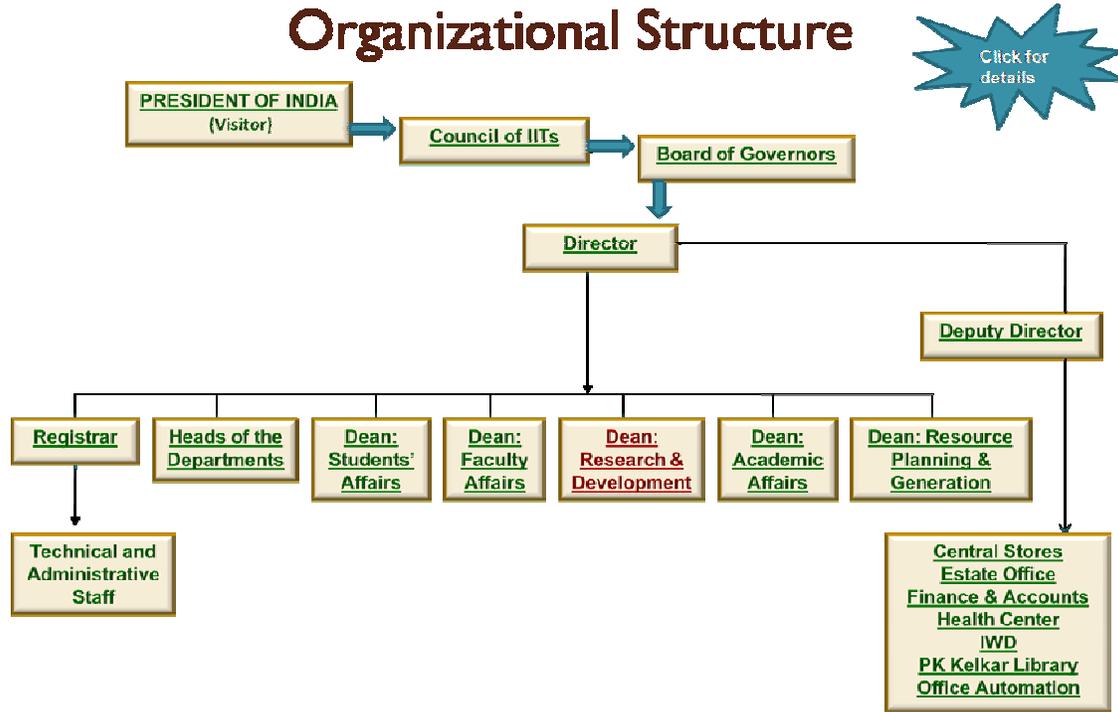
37.	DORD online	80
38.	List of Forms	81

List of abbreviations

TT: Telegraphic Transfer
ECS: Electronic Clearing Service
SR: Serial Number
LC: Letter of Credit
RTGS: Real Time Gross Settlement
NERD: Notes on Engineering Research and Development
POWER: Promotion of Work Experience & Research
REACH: REsearch And CHallenges
GE3: Group on Environment & Energy Engineering
BOG: Board of Governors
IRDC: Institute Research and Development Committee
RA: Research Associate
SIIC: SIDBI Innovation and Incubation Centre
CDTE: Center for Development of Technical Education
CARE: Committee for Acquisition of Research Equipment
FIST: Fund for Improvement of S&T Infrastructure
PI: Project Investigator
UC: Utilisation Certificate
TA: Travel Advance
PDA: Professional Development Account
DPA: Department Promotional Account

Preamble

1. Organizational Structure



2. Mission Statement

IIT Kanpur would like to be reckoned as an international technological university by pursuing the following two-track approach.

- continue to hold #1 ranking for undergraduate and postgraduate education.
- reach the status of a tier-1 research university.

3. Historical Perspective: A Bird's Eye View

The sixties

While Indian Institute of Technology Kanpur (<http://www.iitk.ac.in/>) was established in 1959, the early years saw an emphasis on undergraduate teaching. During the initial days of establishment of the Institute, the main source of research funding was either the Ministry of Human Resource Development or Kanpur-Indo American Program (KIAP).

Gradually, the emphasis on research and development increased and the first Dean of Research & Development, Professor H. K. Kesavan was appointed in 1964. In fact, this was the first ever appointment of a Dean for Research anywhere in the IIT system. This was a time when external funding was practically non-existent and much of the necessary infrastructure was established from the mainstream funding of the Ministry equivalent of Human Resource Development (MHRD) and to some extent, from the Kanpur Indo-American Program (KIAP).

Even in these early years, several books and papers were published by the faculty. During 1961-70, the publications per year were 134, most of them in international journals, including such prestigious journals as Science and Nature. Right from the beginning, book-writing has been a strong point of IITK faculty and in the first decade as many as 60 books were published. Despite teaching being the primary responsibility, a research orientation permeated education at the Institute leading to the adoption of engineering science as the basis of curriculum development. It is noteworthy that postgraduate programs at the Institute started at around the same time as the undergraduate, with graduate level electives being offered to sophomore and junior level students. The culture of giving projects and term papers to supplement examinations can also be attributed to the research mindset of the faculty, almost since the inception of the Institute.

The first major facility to be created is the Computer Center (1964) established in 1969 at its current location.

The seventies

In the early seventies, Government of India established the Department of Science and Technology as well as the Aeronautical Research & Development Board and the era of sponsored projects started. In this decade, several other government sponsoring agencies (Defence Research Development Organization, Department of Electronics, Board of Research in Nuclear Sciences) were also established.

In 1971, a stand-alone R&D office was set-up at IIT Kanpur. One of the first major projects to be sponsored at IITK was the Advanced Centre of Electronic Systems (ACES). The main objective of this project was to develop a microwave communication system for the Himalayas.

In the early years, the R&D office was manned by just 4 staff members and there was no separate account for project funds. The creation of another account (Account II) in 1979 for managing the project funds was a major development in streamlining and facilitating the execution of projects. At that time, several audit objections were raised regarding this new Account but the Institute was able to convince the auditors on the necessity of having a separate account. By the end of this decade, the number of on-going projects was 171 (sponsored) and 130 (consultancy) with a total budget respectively of Rs 338 and 39 lakhs.

The eighties

The number of sponsored research projects increased significantly in the eighties resulting in an increase in the number of project employees as well as office staff. Specifically, 649 sponsored projects and 663 consultancy projects with respective budgets of Rs 63.7 and 7.9 crores were granted over the decade. An important development in 1989 during the tenure of the then Dean, Professor R.N. Biswas, was the creation of cadre of quasi-permanent employees. These employees are paid from R&D funds and are utilized for the efficient running of projects. There were not too many industry sponsored projects in this decade.

With the increase in the number of projects and associated project staff, project employment was streamlined and the first document detailing the project staff classification was prepared in 1989.

Among projects, major funding was received from UNDP to set-up the Computer-Aided Design (CAD) laboratory in 1985.

The nineties

The number of funding agencies and the number of projects continued to increase in the nineties. The number of sponsored projects increased from 31 (sponsored) and 73 (consultancy) in 1990 to 63 (sponsored) and 113 (consultancy) in 1999. The first booklet, detailing the guidelines for sponsored and consultancy projects, was printed in 1990.

One of the major R&D efforts undertaken by IIT Kanpur in this decade was the setting-up of the National Wind Tunnel Facility. The funding for this national facility was provided by ARDB, DST and IIT Kanpur. This facility is one of its kind in India and is heavily used by various organizations from all over the country. Some of the other major projects completed in this decade include technology development missions (since 1993) related to integrated manufacturing, new materials and intelligent automation of power transmission. These projects had a strong industry-association as well as product development. Collaboration with CDAC Pune brought the first parallel computer (PARAM) to the campus in 1995. The successful *ernet* (educational research network) project inducted the faculty into the domain of emails (1993) and was followed soon by internet (around 1996). The project provided leadership across the country in setting up computer networks for educational purposes. The Institute webpage was first hosted by the information cell in 1999.

To advance cooperation between industry and academia, Government of India identified seven Technology Development Missions (TDMs) spread across all IITs. IIT Kanpur participated in three of these: i) Communication, Networking and Intelligent Automation, ii) Materials, and iii) Integrated Design and Competitive Manufacturing. The developmental work in these projects was very well appreciated by the industry.

To encourage faculty to obtain external funding, the Department Promotion Accounts and the Professional Development Accounts were instituted in 1993. IIT Kanpur was the first Institute to adopt this practice. To house the ever increasing number of project employees, the first Research Associates (RA) hostel was completed in 1997. The Institute signed a memorandum of agreement in 1993 with Narosa Publishing House, New Delhi for publication of monographs under the *IIT Kanpur Series of Advanced Texts*.

In 1999, the CARE scheme was started under which part of the interest from the Endowment Fund is used to purchase major equipment. Several sophisticated equipment have been procured under this scheme. Currently, the entire scheme is supported from the Institute budget. An encouraging development during this decade was the significant increase in the number of sponsored and consultancy projects originating from the industry. Till the end of nineties, most of the projects were narrow in scope with a modest budget. With tremendous improvement in infrastructure, particularly electricity, this trend changed from the year 2000 onwards.

The twenty-first century (the first decade)

The number of sponsored and consultancy projects continue to increase each year. In 2008, the number of on-going projects was 102 (sponsored) and 101

(consultancy) with sanctioned budgets respectively of Rs. 53 and 8 crores. Coinciding with this trend is the increase in the number of awards conferred on the faculty. A noteworthy development in this decade is the increase in the number of industry-sponsored projects. In this period, several large interdisciplinary projects (for example, Media Lab Asia, Railway Technology Missions) have been successfully completed. Another development in this decade has been the setting up of several Cells, such as Space Technology Cell with ISRO, Railway Research Cell with RDSO, HAL Research Cell, and IGCAR-IITK cell. A new culture of Centres as domains of research, as opposed to Departments as degree-granting academic bodies emerged. Thus, one saw the creation the Samtel Centre for Display technologies, Prabhu and Poonam Goel Centre for Computer and Internet Security, and National Information Centre for Earthquake Engineering. The first decade of the twentieth century saw the Institute embark on the triumvirate subjects of bio-nano-info (respectively, bioengineering, nanotechnology, and information technology). Academic programs as well as research projects in these areas proliferated. The faculty hiring now reflects this trend.

To fully exploit the technologies developed at IIT Kanpur, the SIDBI Innovation and Incubation Centre (SIIC) was established in 1999. The faculty entrepreneurship policy of IIT Kanpur was approved by the BOG in June 2008. This document lays the methodology for faculty to start companies based on their research ideas and concomitant products, processes and spin-offs. Particularly, in this decade, IIT faculty has become aware of the patenting issues and the number of patents filed/issued has increased from 3 in 2000, 6 in 2005, to 48 in 2008. To help the Dean, R&D in formulating policies and defining thrust areas, the BOG constituted the Institute Research & Development Committee in 2007. This has representation from all departments and inter-disciplinary programs.

To help in the running of Centers and operation of sophisticated equipment, a new cadre of research engineers was created in 2005. Their pay scales and perks are similar to permanent Institute employees but their salary comes either from projects secured by them or from R&D funds. To house the ever increasing number of project employees, another RA hostel was completed in the year 2004.

In this decade, a publication, *Directions*, has been published regularly to highlight the recent developments in frontier areas. From 2007, IITK has also instituted an annual research symposium to showcase major themes of research in the Institute.

4. Research & Development outlook

Since its very inception, IIT Kanpur has been striving to develop itself into an institution of excellence in education and research in consonance with the contemporary and future needs of India through meaningful education, original research of the highest standard and leadership in technological innovation for the industrial growth of the Country. With the path-breaking innovations in both its curriculum and research, the Institute is rapidly gaining a legendary reputation globally.

In addition to offering formal Undergraduate and Post-graduate Programs, the Institute actively encourages its faculty and other academic staff to undertake sponsored research and consultancy projects in order to strengthen the research profile of the Institute. Research and development is carried in several areas like energy, health, and environment, manufacturing, telecommunication, nanotechnology, materials, simulation, infrastructure, and computation.

These projects are very important for maintaining external and global linkages and are also a main source of revenue for the Institute.

Over these years, some of the major interdisciplinary research initiatives undertaken by the Institute are technology mission on railway safety, digital connectivity for rural areas, translation development for Indian languages, smart card and radio frequency identification, cyber security, biometrics, nanoscience and nanotechnology, Indo-US Center for Advanced Manufacturing (with focus on micro and nano fabrication), Indo-US Center on Biomaterials, Indo-US Center on Microwave sintering, National fire testing facility (with BARC), Indo-UK research Centers on Biomaterials and Tissue Engineering, HAL-IITK initiative, nanosatellite (with ISRO), autonomous vehicle (with Boeing), BSNL-IITK collaboration on multimedia, communication technologies, cognitive radio and computational mathematics, IGCAR-IITK initiative on futuristic mechanics and materials.

Section A: The framework

5. Office of Research and Development <http://www.iitk.ac.in/dord/>

Office of Research & Development (the Office) is set up to provide specialized administrative and managerial support for the operation of sponsored research, consultancy and other R&D related activities of the Institute.

The research philosophy has progressed from inter-departmental collaboration, to inter-institutional partnerships at national and international levels. The scope and scale of research has substantially evolved from the era of student theses to funded projects to interdisciplinary research programs at national and international levels.

The Office facilitates interaction with external agencies, both national and international. It also promotes and manages Institute-Industry interactions and all externally funded research and development projects as well as patents. The Office acts as a liaison between the Institute and funding agency to undertake sponsored projects.

6. Dean, Research and Development

Dean's selection is done in consultation with all the departments. Then, the Dean is appointed by the Board of Governors for a period of 3 years.

7. Institute Research and Development Committee (IRDC)

<http://www.iitk.ac.in/dord/irdc.htm>

IRDC has been constituted with Board approved mandate and responsibilities of providing impetus to the Institute research and development activities and to provide support, advice and assist the Dean: Research and Development.

It has representation from all departments and inter-disciplinary programs. The body has become a vibrant entity to discuss policy issues and the Institute receives the first level feedback from the faculty. IRDC members highlight shortcomings in procedural matters and thus sharpen the performance of the Office.

8. Research Centers

In the background of evolved research profile, creation of Research Centers within the Institute needs to be appreciated in the context of scientific and technological upheaval happening around the globe. These research centers come under the Office of R&D. Presently, the Institute has 26 research centers:

- Environmental Science & Engineering: <http://www.iitk.ac.in/cese/>
- BSNL-IITK Telecom Centre of Excellence:
http://www.iitk.ac.in/dord/BSNL_MoU.pdf
- Prabhu Goel Research Centre for Computer & Internet Security:
- <http://www.security.iitk.ac.in/>
- SAMTEL Centre for Display Technologies (SCDT):
<http://www.iitk.ac.in/scdt/>
- DST unit on Nanosciences: <http://www.iitk.ac.in/nanoscience/>
- Archaeology & Cultural Resource Management
- www.iitk.ac.in/dord/pptfiles/Archaeology_Cente_Review_10May.ppt -
- Space Technology Cell: <http://www.iitk.ac.in/dord/isro/>
- Railway Technology Cell: <http://tmrs.iitk.ac.in/tmrs/>
- SIDBI Innovation & Incubation Centre (SIIC):
<http://www.iitk.ac.in/siic/index.html>
- The Autodesk IITK Digital Innovation Laboratory (DIL):
<http://www.iitk.ac.in/dil/>
- National Information Centre of Earthquake Engineering (NICEE)
<http://www.nicee.org/>
- Media Lab Asia: <http://www.iitk.ac.in/MLAsia/about.htm>
- HAL-IITK Cell
- Uttar Pradesh Power Transmission Corporation Ltd (UPPTCL)
<http://www.iitk.ac.in/dord/DORD/power.pdf>
- Computer Centre: <http://www.iitk.ac.in/cc/index.htm>
- Advanced Centre for Materials Science (ACMS)
<http://www.iitk.ac.in/acms/about.htm>
- Centre for Laser Technology (CELT): <http://www.iitk.ac.in/celt/>
- Centre for Mechatronics: <http://www.iitk.ac.in/robotics/>
- National Wind Tunnel Facility (NWTf): <http://www.iitk.ac.in/nwtf/>
- Facility for Ecological and Analytical Testing (FEAT)
- Advanced Centre for Electronic Systems (ACES)
- Computer Aided Design Laboratory: <http://www.iitk.ac.in/cad/>
- 3i Network/Infrastructure Research Cell: <http://www.3inetwork.org/>
- INDO–US Center for Research Excellence in Fabronics
- Center for Development of Metal-Ceramic Composites
- Indo-US joint center on Biomaterials for health care:
http://www.iitk.ac.in/indo_us_biomaterials/
- Nanotechnology initiative

9. R & D projects: (www.....)

The Institute's 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 Institute faculty, research staff and students conduct research with goals and objectives ranging from intellectual curiosity, addressing contemporary challenges, developing technology, or writing scholarly publications. The Institute gains immensely from these activities and in fact, thrives on faculty quest. The Institute standing in the world as one of repute and prestige rests squarely on its performance in the research domain. Consequently, the Institute has facilitated a healthy ambience for research – both in terms of state-of-the-art infrastructure and scholastics.

The goal of our Institute is to encourage and cultivate an environment to carry out fundamental as well as applied research activities in the professional fields. Accordingly, the members 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 which you will be comfortable requires refinement of your reach idea 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 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 programme manager and seek required information on matching of 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.

Operational Manual for Research & Development Division

- **Proposal Description: Title:** It is the summary of the proposed study. 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 important 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 of the Institute. It is necessary to check your calculations before you submit it to the funding agency.
- **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 proposed budget of the study.

A. Type of Research Projects

a. Initiation grant <http://www.iitk.ac.in/dord/initiationgrant.htm>

The Institute funds grant to new faculty for initiating research. The proposal should include a description of research that he/she wishes to conduct over the next 1-2 years. It is a platform meant to help new faculty to prepare for subsequent proposal submissions.

Guiding notes:

- The initiation grant is for an amount of Rs 10 lakhs at present to procure research equipments, PC, printer, UPS, books, furniture, miscellaneous items and domestic travel for the purpose of initiating projects. It does not include:
 - a) appointing staff;
 - b) conference travel (for which other sources are available).
- Proposal is presented by the new faculty before an Institute level committee, consisting of DORD, DOFA, and DRPG.

b. Sponsored Research Projects

<http://www.iitk.ac.in/dord/sponsoredprojects.htm>

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.

Individual projects

The Institute encourages investigation of basic and applied areas of science and technology, 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.

Collaborative projects

Faculty may also participate in collaborative projects with other domestic or foreign partners. In such projects, even though there may be an overall project, there must be a separate budget and scope of work statement to be done by the faculty and staff of the Institute. The summary statement provided to the Institute should be based primarily on the portion to be done by the Institute. The Institute will treat this like any other sponsored project.

The Institute soon after receiving the sanction letter 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 of the Institute, in anticipation of the release of the Funds.

The money received through Grants is parked in the Current Account held by the Institute and the Institute does not earn any interest on the Grants received. Neither the Institute charges any interest from the Funding agencies in case of delay in reimbursement of expenditure or transfer of the Funds pledged by the agency towards the execution of the Projects by the PIs of IIT Kanpur.

Guiding notes:

- **Project responsibility:** 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.
- **Preparation and Submission of the Proposal:** The project proposal should be formulated according to the format prescribed by the concerned funding Agency. The format is available at the respective website of each Funding Agency.

Project proposal forms for some funding agencies are available at http://web.iitk.ac.in/dord/forms/Project_Proposal.htm. A general format is provided below:

- **Proposal Description: Title:** It is the summary of the proposed study. 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).

Operational Manual for Research & Development Division

- 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 important 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 of the Institute. It is necessary to check your calculations before you submit it to the funding agency.
- 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 proposed budget of the study.
- While making an estimate of the funds required for a project, the following budget heads should be taken into account:
 - (a) Salary of Project Staff including PhD scholars
 - (b) Equipment
 - (d) Consumables
 - (e) Travel (domestic, international)
 - (f) Contingency
 - (g) Overheads (@20% of project cost)

Operational Manual for Research & Development Division

- Overheads: Overheads are presently calculated @20% of the total project cost. Please refer 13 Section B.
http://www.iitk.ac.in/dord/DORD/Guidelines_overheads.pdf
- Endorsement is printed on the Dean's letterhead, and is signed by the PI.
- A proposal that satisfies all the conditions, particularly of the overheads, will be forwarded by the Dean: R&D. Any deviation from the norms (e.g. reduction of overhead) 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 Institute's 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 of records.
- IPR issue: All IPR related issues are agreed between the Institute and the funding agency. Preferably, IPR will be jointly shared by IIT Kanpur and the funding agency. For Board approved IPR policy of the Institute, please refer http://www.iitk.ac.in/siic/IP_policy.pdf.
- MoU/Agreement preparation: The Institute has Board approved guidelines for drafting MoU/Agreement. For preparation of MoU/agreement, please refer 19 in Section B.
- After completion of the project, final report should be submitted to the funding agency.
- A completion certificate should be obtained from the funding agency for successful completion of the project based on which project account will be closed.

After the project is sanctioned, for registration, operation of the Project, please refer function of the Office of R&D in Section C.

c. Consultancy Projects

<http://www.iitk.ac.in/dord/consultancyprojects.htm>

The Institute has 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.

Guiding notes:

- A consultancy project/task/work is one, where faculty and research staff provides 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 Institute. This means, that whenever payments are done, they should come in the name of the Institute, which 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.
- Preparation and Submission of the proposal: In case of a consultancy project, normally based on the requirement, proposal is prepared by the PI. It should specifically mention breakage of funds, normally consultancy fee as the primary component. It may also have budget for supporting manpower, equipment, travel contingency and other such costs to execute the consultancy project.
- Overheads and service tax: Please refer Guideline XV Section B.
http://www.iitk.ac.in/dord/DORD/Guidelines_overheads.pdf

At the stage of proposal submission, the budget will reflect project costs (X), 25% overheads (0.25X) and service tax (10.3% of 1.25X).

Service tax is subject to periodic revision by the Government of India.

Service tax is not deducted on projects, if the funds are received in foreign currency.

Service tax on equipment is not chargeable, in case equipment is to be returned to the funding agency/organization after completion of the project. This should be clearly spelt out in the MoU/proposal itself.

- In international project:
 - Funds are received in foreign currency;
 - service tax is not applicable;
 - The research collaboration of IITK with the other party/funding agency should be in conformity with the laws of both the Countries and/or International laws as the case may be.
- A MoU/agreement that satisfies all the conditions, particularly of the overheads, service tax will be approved by the Institute. Any deviation from the norms (e.g. reduction of overhead) will have to be discussed and explicitly approved. The approving authority for any relaxation is the Dean: R&D.
- The softcopy of the proposal will be sent to the Office for records.
- IPR issue: All IPR related issues are agreed between the Institute and the funding agency. Preferably, IPR will be jointly shared by IIT Kanpur and the funding agency. For Board approved IPR policy of the Institute, please refer Guideline http://www.iitk.ac.in/siic/IP_policy.pdf.
- MoU/ agreement preparation: Institute has Board approved guidelines for drafting MoU/Agreement http://www.iitk.ac.in/dord/guidelines_drafting.pdf. For preparation of MoU/agreement, please refer Guideline XX Section B.

Some template/model MoUs of different types are available at:
<http://web.iitk.ac.in/dord/mou/>.

- When MoU is clear from all angles and acceptable to both the parties, it is sent to the Director, IITK for approval along with the Note File (summary of MoU).
- After approval, PI/HOD/DORD/DD/Director as the case may be along with witness sign the MoU.
- Project responsibility: 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. The Institute provides the PIs necessary support.

- After the project is sanctioned, for registration, operation of the Project, please refer functions of the Office of R&D in Section C.
- After completion of the project, final report should be submitted to the funding agency.
- A completion certificate should be obtained from the funding agency for successful completion of the project based on which project account will be closed.
- Function of the Office of R&D: The Office acts as a liaison between the Institute and industry / government bodies to undertake consultancy projects with specific problem, which are generally of short duration.

d. 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 gages, and chemical identification of unknown species. Testing is commonly accomplished in general-purpose laboratories and does not require elaborate preparation or data analysis. Testing is commonly accomplished in general purpose laboratories and does not require elaborate preparation or data analysis.

Guiding notes:

- The procedure for overall operation of the project is similar like that of consultancy project.
- The MoU/agreement should be submitted to the Dean: Research & Development (after getting it forwarded by the HOD/Head of the Center) for signature. Forwarding is required to ensure that sufficient resources are available, and the project can be executed.
- A MoU/agreement that satisfies all the conditions, the service tax will be approved immediately. Any deviation from the norms will have to be discussed and explicitly approved. The approving authority for any relaxation is the Dean.
- The Office will make a suitable record of the proposal, and then courier the project proposal to the concerned agency along with the Institute's 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 of records. The Dean R&D is the competent authority for approving all project proposals.
- Overheads and service tax: Overheads are not deducted on testing projects. Service tax at applicable rates is deducted. Service tax is not deducted on projects funded by agencies outside India and funds are received in foreign currency. Refer guideline XV in Section B.
http://www.iitk.ac.in/dord/DORD/Guidelines_overheads.pdf
- After deduction of service tax, the balance receipt of testing is distributed as: 34% Institute, 33% DPA, 33% distribution (among participating employees).

After the project is sanctioned, for registration, operation of the Project, please refer function of the Office of R&D in Section C.

Certification:

The Institute (through its faculty) is *not authorized to undertake certification* in any form. At best, one can say that, on a given day, with a given sample, a well-defined test yielded the following results.

e. Institute supported projects

<http://www.iitk.ac.in/dord/financialsupport.htm>

It is anticipated that sustained long-term support to research and coherent research groups will deliver immense overall advantage. Against this background, The Institute has proposed for creation of a plan budget for research.

1. Based on the yearly approvals, a total yearly budget of Rs 3 – 4 crores may be available, with the budget likely to grow (significantly) in the future.
2. A total of 4-5 projects would be approved every year, each project being proposed for a period of three or four years.
3. Projects would be selected from detailed proposals submitted to the Institute. The proposals would necessarily be in extremely important and attractive areas. They would be reviewed by a panel of experts, including some from outside the Institute, if necessary. The quality of the proposal would be the primary factor guiding its selection for financial support.
4. Proposals would ideally be inter-disciplinary. They would be developed by a team of faculty and staff from within the Institute. However, we do not plan to restrict proposal development in any manner, at this point of time.
5. The investigators would have considerable flexibility in using the money, subject to initial approval by the expert committee.
6. Projects funded by the Institute would be carefully monitored. Publications, PhD students, and patents would be used as indicators of success.

7. It is hoped that stable financial support from within the Institute will enable our faculty to forge new directions, accept grand challenges, and make a dent in the international scene.

In view of the Institute decision to financially support research of faculty and staff using internal resources, the following strategy for selection and monitoring of projects, including implementation details and deadlines will be adopted.

Guiding notes:

- Call for proposals: Office of Dean: R&D will announce the call for proposals from the academic staff of the Institute. The call will include the Institute position on thrust areas, though proposals would be welcome from all domains of science and technology. Interesting proposals involving social sciences will also be considered. Proposals can be developed by individuals though it is likely that high quality proposals would be inter-disciplinary and hence originate from a group. Proposals will have to be in the DST format. Financial support will be provided for up to a period of three to four years. The quantum of funding is clearly substantial.
- Review process: Proposals will be reviewed by a Board-constituted standing committee. The committee may seek the opinion of international experts to evaluate the proposal. Such experts may be suggested by the investigator in the proposal itself. Quality, originality and the likelihood of high impact would be the guiding principles during the evaluation. Presentations may be arranged to gauge the originality and importance of the proposed research. The committee will make decisions with respect to the suitability of the proposal for financial support as well as other aspects such as time-frame requested, cost of equipment, consumables, staff, expenses towards travel, and workshops-conferences that the investigator may wish to organize. The recommendation of the committee, forwarded by Dean: R&D will be submitted to Director for final approval.
- Administrative issues: The standing committee for evaluating sponsoring projects from Institute resources would be composed of the faculty of the Institute. The committee will have a membership of six with Dean: R&D as the Chairman. In addition, each proposal will be independently reviewed by 2-3 subject experts. Members of the Departmental Advisory Committee may be drawn in for the review process as well as discussions. The standing committee will advise the Board of Governors on areas of research that the Institute should undertake and identify areas of collaboration with leading groups around the world.

- **Timeline:** Call for proposals would be launched in early January every year. Proposals will be due on 31st January. Review (internal and external) is expected to be complete by 31st March. Presentations would be held in mid-April and all decisions would be announced by the last week of April. Reviews of ongoing projects would be arranged in October each year.
- **Identifying areas of research:** This step is understandably the most important. Science and technology evolve at galloping speeds – an aspect that requires flexibility in the choice of research disciplines, investment, as well as faculty recruitment. Research directions could be driven by pure excitement and curiosity. More importantly, certain breakthroughs create new opportunities and avenues of research. The possibility of commercializing ideas, products, devices, and processes will call for sustained funding in specific areas. Ideas may flow from the industry or the Government. Research may be driven by crisis situations or concerns related to national security. The research community periodically announces grand challenges with suitable financial rewards. As an Institute, we may propose to take on leadership positions in subjects that we have traditionally excelled in. The emphasis will vary from one year to the next and will require continuous discussion. Departments, Centers, and IRDC will have to provide continuous advice to the Institute on the choice of focus areas.
- **Evaluation:** Progress would be closely monitored, using external experts, if necessary. High impact publications would be the first step in this evaluation. Institute support will also be viewed as an investment for bringing in major projects and awards. Contribution to national goals in missions such as health, communications, energy, environment, and water will be suitably recognized.

f. Special grants

Sometimes, there are special grants given to the Institute 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.

Guiding note:

- Such grants may be treated as a project for operational reasons. For such projects, the Institute overheads may be reduced or waived. The decision will be taken on a case-by-case basis by the Dean.

g. Travel grants

Travel support is given by funding agency for specific travel support. All travel expenditures are paid out of this account.

Guiding note:

- For taking any travel advance and settlement or reimbursement of the travel expenses from such grant, please refer 27 of Section C (Functions of the Office of R&D).

h. Committee for Acquisition of Research Equipment (CARE)

<http://www.iitk.ac.in/dord/care.htm>

Major equipment in the areas of research where a long-felt need exists or for new thrust areas of research is the main focus of the CARE scheme. Proposals for purchase of major research equipment are invited from or a group of faculty members drawn from across the Institute. Every year, a typical amount of 2.5-3 crore is available for CARE scheme.

Guiding notes:

- Submission of the Proposal: The proposals as per the proforma included are to be submitted to DORD office taking into account the scope of the Scheme as outlined in the next section of this document.
- The proposals need to be duly forwarded by the concerned Head(s) of the Departments / Centers. It is essential that the proposal involves at least two departments/centers and at least six users, who will be clearly identified in the proposal. The proposers will identify one Department / Center as the lead Department / Center of the proposal. The Head(s) of the other Department(s) / Center(s) associated with the proposal will also be required to co-forward the proposal along with the Head of the lead Department / Center. The lead Department / Center is expected to contribute significantly to the infrastructural support required, such as space and manpower, for the equipment to be purchased. The other associated Department(s) /Center(s) can contribute in terms of running and maintenance costs of the equipment, which will be decided by a user committee duly approved by the DORD.
- It is understood that the proposer/head of the lead department/center will ensure providing fair access to all the participating users or any new user in the institute, identified later, without any discrimination, failing which the facility may be transferred to another unit/department in the institute or alternate coordinator may be assigned. There is no restriction on the number

of proposals from a Department/Center. The CARE committee will review all the proposals. The committee is chaired by the Dean, R&D and the committee members are appointed by the Director. Its recommendations will be forwarded to the Director, and the Dean, R&D will make the final announcement as per the approval of the Director.

After the proposal gets accepted, please refer Section C Functions of the Office of R&D for purchase of equipment.

i. Fellowships

Fellowships are of 3 kinds:

1. Student fellowships: Student applies to CSIR or UGC for fellowship.
2. Professional fellowships: Faculty applies for fellowships of various organizations e.g. BOYSCAST, Swarnajayanti, Ramanna fellowship, J.C. Bose. They need to submit the proposal along with the application. Funding agency declares award of fellowships.
3. Emeritus fellowships: Retired faculty applies for fellowships to UGC, AICTE.

Guiding notes:

- In case of student fellowship, letter is received by the Institute, based on which appointment letter is given to the student and salary is released.
- In case of professional fellowships, faculty applies for fellowships of various organizations e.g. BOYSCAST, Swarnajayanti, Ramanna fellowship, J.C. Bose. They need to submit the proposal along with the application. Funding agency declares award of fellowships.

In this case, normal project account is opened in the Office for fellowship received. Operation of the project is just like any other project account.

- In case of emeritus fellowships, retired faculty applies for fellowships to UGC, AICTE. After receiving such fellowship, appointment letter is given to the faculty who starts working in the Institute and salary is released by the Office of R&D.

j. Fund for Improvement of S&T Infrastructure (FIST)

The Department of Science and Technology (DST) has a FIST scheme to build infrastructure facilities in universities and higher educational institutions. The grant under this scheme is provided for strengthening infrastructure of the identified department in teaching and research and is to be spent exclusively for the said purpose.

Guiding note:

- The FIST account is opened in the Office for grant received. Operation of the project is just like any other project account.

B. 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 academic 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 opportunity to gain guidance from experts to further work in the area.

a. Promotion of Work Experience & Research (POWER)

<http://www.iitk.ac.in/dord/power/home.php>

POWER is the first initiative of its kind in India to promote coordinated Research and Work-Experience through student-industry interaction. It gives students the freedom and opportunities to work upon their own ideas in diverse areas of business, science and technology that have a bearing on the existing industrial and national problems. It offers a database of experts, accessibility to institute resources, funds, and basic skill-building projects (including lecture series, workshops, visiting trips).

b. GE3 (Group on Environment & Energy Engineering)

The group increases awareness about the importance of energy efficiency.

10. Center for Development of Technical Education (CDTE)

Self financing courses

In order to encourage awareness as well as to provide exposure to state-of-the-art subjects in diverse areas of science and technology, the faculty and academic staff of the Institute offers courses for faculty members of various NITs, government engineering colleges, private colleges, researchers from National R&D Laboratories as well as professionals from private industries. The courses for participants are offered under the Quality Improvement Program. The participants belonging to industry pay a registration fee to participate in such courses. Courses last for a week to two weeks and can be of intense experience.

The Institute aims to encourage such courses at the high end to contribute to skill development in the working professionals as well as generate revenue for the Institute.

Organizing Conferences/ symposium/ workshops

Conferences/ symposium/ workshops are an important part of academic and research world, and academicians across the world voluntarily put effort in conference organization. Generally, the organizations, where these volunteers work, provide direct and indirect support for such conferences. The Institute also provides support for organizing conferences, which help in building the brand image of the Institute.

The Institute encourages the use of its facilities for conferences. There will be charges for the use of these facilities, and it is expected that conferences will have minimal or no impact on regular academics of the Institute.

Guiding notes:

- For organizing any self financing courses, workshops, conferences, seminars, request has to be routed through Head, CDTE. CDTE head will help PIs in availing institute resources like visiting hostel, event management and auditorium.
- If a faculty (or research staff) member is part of the organizing group of a conference, then the Institute will permit (and facilitate) opening of a separate bank account in the name of the conference event, which will be jointly operated by the faculty member from the Institute who is associated with the event, and some other conference organizer (general chair, or the finance chair). Such accounts may only be opened with explicit permission, and must be closed within six months of completion of the event. The

account should be audited by the Institute designated person before closing. The responsibility of operating the account, fulfilling the tax obligations, etc. rests entirely with the Conference Organizers – the Institute is only a facilitator.

- In case of self financing courses, 15% of the total receipts (registration as well as grants) will be transferred to the CDTE account of the Institute.
- For calculation of overheads, please refer Guideline XIV Section B.
http://www.iitk.ac.in/dord/DORD/Guidelines_overheads.pdf

11. Filing and Management of Patents

The Institute's scope and scale of pursuing research has substantially evolved to include collaborative projects, technology mission, technology transfer and IPR.

IPRs are generated by the faculty while working in the Institute on projects funded by either institute or external agencies. IPR is a buzz word in global economy. The Institute should try to keep its rights intact as far as possible. Sharing of IPRs is decided by negotiations with the funding agency and on case to case basis. For sharing and commercialization of IPRs, the Institute has the Board approved policy: http://www.iitk.ac.in/siic/IP_policy.pdf.

These IPRs are generated by faculty/staff/students individually or in collaboration, for the purposes of any revenues will be treated as property of the Institute. The Institute will, on a case-by-case basis, get into an agreement with the creator(s) of the IPR, regarding the sharing of revenues that may accrue by selling/leasing/granting rights/etc. of such IPR.

12. Contract/Agreements

The Institute's research philosophy has progressed from inter-departmental collaboration, to inter-institutional partnerships at national and international levels. The Institute needs to sign several Memoranda of Understanding/contracts/agreements with Indian as well as international academic/research institutions and industries to strengthen its collaborative research efforts either for carrying research, . The objectives of these MoUs are promoting, strengthening, maintaining scientific and academic co-operation, exchange of faculty, students, staff, technology transfer, sharing of intellectual property for the purposes of engineering research, and educational programs, sharing scientific instruments of common interest.

While getting into these research/academic agreements with agencies, laboratories, organizations, and companies, the document that is prepared needs

to be couched in the right language. It carries legal weightage and can be very important under certain circumstances.

Guiding notes:

- For drafting MoU/contract/agreement, the Institute has the Board approved guidelines http://www.iitk.ac.in/dord/guidelines_drafting.pdf.
- BOG, IITK has given in-principle approval for additional guidelines for drafting MoU/Contract/Agreement (http://www.iitk.ac.in/dord/guidelines_drafting.pdf).

Some template/model MoUs of different types are available at:

<http://web.iitk.ac.in/dord/mou/>

A few sample MoUs of IITK with external agencies are available on:

<http://web.iitk.ac.in/dord/mou/samplemous/>

For getting MoU checked and further processing and note file, please refer 28 of Section C (functions of the Office of R&D).

Section B: Guidelines

13. Institute's policy on Overheads and Service Tax

http://www.iitk.ac.in/dord/DORD/Guidelines_overheads.pdf.

I. Background:

- i) Project cost refers to the expense incurred by the PI for the duration of the project. It includes equipment, salaries, travel, consumables, and contingency.
- ii) Overheads refer to the payment due to the Institute from the grant approved by the funding agency-organization-industry.
- iii) Sponsored project refers to one in which the PI carries out original research. Such projects, generally do not have a provision for payment of honorarium (though exceptions are possible).
- iv) Consultancy project utilize prior skill and competence of the PI. They allow the PI to charge honoraria (including payments to employees of the Institute). These payments can be in cash or deposited in the respective PDAs.
- v) Testing refers to a very limited duration activity involving a calculation or a measurement.
- vi) Service tax is required to be paid for all consultancy and testing projects.
- vii) Norms for payment of honorarium are separately posted.

II. Calculation of overheads:

1. SPONSORED RESEARCH: Proposals submitted for sponsored research must show overheads of 20% on the project cost. [Example: If the project requirement is X units, overheads would be 0.2X units and the total budget would be for 1.2X units.]
 - a. When money is received from the funding agency, overheads as approved would be deducted. When money is received from a private organization as a consolidated amount, 16.7% would be deducted as overheads.
2. CONSULTANCY: At the stage of proposal submission, the budget will reflect project costs (X), overheads at 25% ($X_1=0.25X$) and service tax at 10.3% ($X_2=10.3\%$ of $(X+X_1)$). Service tax is subject to periodic revision by the Government of India.
 - a. When money is received from the funding agency in a lump sum, the following procedure will be followed. At the first instance, **Service tax** is deducted (= {the total amount received /110.3} x 10.3). Next, 25% Institute Overheads are deducted from the remaining funds (= {funds

Operational Manual for Research & Development Division

after deducting service tax $\{125\} \times 25$). The balance funds are credited into the project account as per the budgetary allocations of the project.

- b. Service tax will be deposited in a suitable account in accordance with the rules of Government of India.
 - c. Service tax on equipment is waived if the funding agency-organization reclaims it at the end of the project, which should be the part of the proposal.
 - d. Service tax is not deducted, if the funds are received in foreign currency.
3. COURSES: For short-term courses, conferences, workshops, and symposia, 15% of the total receipts (registration as well as grants) will be transferred to the CDTE account of the Institute.
 - a. For QIP, ISTE, and DST-type courses, prescribed norms would apply.
 - b. 15% overheads will be paid for courses conducted outside IIT Kanpur.
 4. TESTING: After deduction of service tax, the balance receipt of testing is distributed as per: 34% Institute, 33% DPA, 33% distribution (among participating employees).
 5. DISTRIBUTION: The overheads (A) collected from sponsored and consultancy projects as well as courses and conferences will be distributed within the Institute as follows:

Sl. No.	Nature of Project	Overheads %	OVERHEADS SHARE OF VARIOUS UNITS		
			Institute	DPA	PDA
1.	Sponsored	20%	0.6 A	0.25 A	0.15 A
2.	Consultancy	25%	0.7 A	0.3 A	NIL
3.	Courses (within IITK)	15%	0.7 A	0.3 A	NIL
4.	Conferences/workshops/symposia	15%	0.7 A	0.15 A	0.15 A
5.	Courses (outside IITK)	15%	0.7 A	0.3 A	NIL
6.	Testing Fee	34% +33% +33% =100% (total)	34% of the total receipts	33% of the total receipts	33% of the total receipts as honorarium /PDA

14. Professional Development Account (PDA)

PDA is created for individual faculty, research staff on request soon after his/her joining, and is like a perpetual project whose PI is the faculty or staff. Incomes in PDA are largely due to some other activity of the faculty member.

Please refer the original document prepared for creation of PDA in 1993
<http://web.iitk.ac.in/dord/rules/PDAdocument.pdf>.

The latest guidelines can be referred at
<http://web.iitk.ac.in/dord/rules/PDAlatest.pdf>.

Credits in the PDA

The following may be credited into the PDA:

1. Overheads of sponsored projects (as per approved disbursement);
2. Contributions from JEE, GATE, JMET and other similar examinations of the Institute;
3. Amount transferred from continuing (or self-financing) courses or workshops that is not drawn as honorarium;
4. Full or portion of the balance amount of consultancy projects;
5. Any other income with the approval of DORD.

Utilization of PDA

The PDA can be utilized for the following purposes:

1. Purchase of equipment;
2. Travel (within the country and abroad) for research or related discussion;
3. Conference related payment;
4. Purchase of Books, journal subscription, Professional Membership;
5. Teaching material and teaching aids;
6. Expenses related to promotion of professional activities;
7. Recruitment of qualified staff;
8. Any other expenditure as permitted from the consultancy account except honorarium payment;
9. Any other expenditure with the approval of DORD.

As a PDA is treated like a project, all purchases shall be made following the Institute Purchase Rules for projects. No honorarium can be drawn from this account.

15. Department Promotional Account (DPA)

Head of the Department operates DPA.

Credits in the DPA

The following may be credited into the DPA:

1. 25% of the overheads collected from sponsored research projects of the faculty of the department.
2. 30% of the overheads collected from consultancy projects of the faculty of the department.
3. 30% of the overheads collected from courses conducted by the faculty of the department within IIT Kanpur.
4. 15% of the overheads collected on the Conferences/workshops/symposia organized by the Department.
5. 30% of the overheads collected from courses conducted by the faculty of the department outside IIT Kanpur.
6. 20% of Gate/JEE Contribution of Participating faculty
7. Interest earning of Endowment Fund Account
8. Conference balance
9. 33% of balance receipt of testing.

Utilization of DPA

The DPA can be utilized for the following purposes:

1. Taxi fare, travel reimbursement to guest visiting the department
2. Telephone charges
3. Purchase of equipment for the department
4. Contractual payment for work assignment
5. Office administrative expenses (stationary, cartridge)

16. Books

The rich outcome of the research endeavors can be seen in the large number of books. Right from the beginning, book-writing has been a strong point of IITK faculty. The strong academic environment prevailing in the campus encourages faculty members to write books in the area of their expertise. The support from CDTE cell in this context is noteworthy.

Following the practices across the world, books authored by faculty or research staff are not treated as projects or consultancies. Hence, any royalties received for books authored by faculty members are not within the purview of the Institute – they need not be reported to the Institute.

17. Payment of honorarium

http://web.iitk.ac.in/dord/officeorder_honorarium_pool.pdf

Guidelines for honorarium committee

http://web.iitk.ac.in/dord/officeorder_honorarium.pdf

18. Entrepreneurship support through SIIC

The Institute has set up the *SIDBI Innovation & Incubation Centre (SIIC)* <http://www.iitk.ac.in/siic/index.html> in collaboration with *Small Industries development Bank of India (SIDBI)* to foster innovation, research, and entrepreneurial activities in technology-based areas. SIIC provides a platform to start-ups prospective entrepreneurs and intrapreneurs (faculty, academic staff, alumni, and students) to convert their innovative ideas into commercially viable products.

3-tier incubation at SIIC

Category I:

Ventures that qualify as a nursery incubation project initiated by one or more members of the academic staff, students and/or alumni of one of the IITs or other premier institutes, supported by the Institute, or some other technology promotion agency (government or non-government) with a view to trying out a novel technological idea for upgradation to a commercial proposition, scaling up a laboratory proven concept, and setting up a technology business enterprise.

Category II:

Technology-based start up company promoted by a 1st. Generation Entrepreneur desirous of R&D partnership with the Institute or company with a view to trying out a novel technological idea for upgradation to a commercial proposition, scaling up a laboratory proven concept and setting up a technology business enterprise.

Category III:

Technology/R&D unit of an existing small/medium size enterprise, industry association or a R&D Company who desires to have close technology interface with the Institute.

All applications for membership of SIDBI INNOVATION AND INCUBATION CENTRE (SIIC) in IIT Kanpur are evaluated by the Evaluation Committee for residency in SIIC.

Each successful applicant approved for membership by the Evaluation Committee will have to execute a License Agreement for space utilization with the Institute

as well as a bilateral MOU on Synergistic collaboration with the Institute through SIIC.

The Center provides facilities (<http://www.iitk.ac.in/siic/facilities1.html>) like seed money, in campus accommodation, mentoring by faculty member, business plan development, business promotion, incubation space, office support, library and documentation, assistance in obtaining finance, advertisement agencies, legal experts, advantages of electronic and animation cell, and access to resources at the Institute

19. Intellectual Property Rights

INTELLECTUAL PROPERTY POLICY DOCUMENT

I. Intellectual Property Ownership

A. IITK Ownership

1. Intellectual property of any kind created by faculty, students, staff, project staff, visitors and others, such as trainees from other institutes, participating in IITK programs or using IITK funds or facilities, are owned by IITK when either of the following applies:
 - a) The intellectual property was created with the significant use of funds or facilities administered by IITK.
 - b) The intellectual property was created (i) as a part of the normal professional duty or (ii) work for hire.
 - c) The intellectual property was created in the course of or pursuant to a sponsored/consultancy research agreement with IITK. In such cases, specific provisions related to IP made in contracts governing such activity will determine the ownership of IP.

- d) The intellectual property was created as a part of academic research and training leading towards a degree or otherwise.
2. All copyrights, including copyrighted software will be owned by IITK when it is created as a part of any of the academic programs of IITK or created pursuant to a written agreement with IITK, providing for transfer of copyright or ownership to IITK. More specifically:
 - a) IITK will be the owner of the copyright on all teaching materials created by IITK and non-IITK personnel for external agencies, institutions and industry under the continuing education and distance education programs of IITK. However, the authors will have the right to use the material for their teaching and research activities.
 - b) IITK will not claim ownership of copyright on books and scientific articles authored by IITK personnel. However, IITK will have the copyright if books and reports have been created using funds specifically provided for this purpose by IITK.

B. Inventor/Author Ownership

1. Inventors/Authors will own intellectual property when
 - a) None of the situation defined above for IITK-ownership of intellectual property applies.
 - b) It is created outside their assigned/normal area of research/teaching, for example, popular novels, poems, musical compositions, or other works of artistic imagination, without the use of significant institute resources.
2. Students will own copyright on theses/dissertation created as a part of their academic programmes. However, the student must grant to IITK royalty-free permission to reproduce and distribute copies for teaching and research as well as for dissemination for teaching and research to other academic institutions.
3. Ownership of software code, patentable subject matter and other intellectual property contained in the theses/reports are subject to conditions specified under IITK-ownership and Inventor/Author ownership.

C. Third-Party Ownership

1. Ownership of intellectual property resulting from:
 - a) Funds provided partially or fully by a third-party to IITK will be governed by specific provisions in the contract between the third-party and IITK.
 - b) Exchange programs between IITK and other institutions will be governed by specific provisions in the contract between the third-party and IITK.
 - c) In case no such specific contract exists, IPR will remain with IITK.
2. In cases of all IP produced at IITK, IITK shall retain a non-exclusive, free, irrevocable license to copy/use IP for teaching and research activities, consistent with confidentiality arguments where ever entered by IITK.
3. In cases where an IP is created by IITK personnel, fully or as a part of the team, during deputation, official leave, or sabbatical, the concerned IITK personnel should officially communicate the IP to IITK. If the IP involves ideas/software developed, fully or in part, using significant institute resources, then the IP will also be owned by IITK fully or partially, as the case may be.

II. Disclosures, Confidentiality and Assignment of Rights

1. For sponsored and/or collaborative work the provisions of the contract pertaining to disclosure of IP are applied.
2. For all other IP produced at IITK, the inventors will be required to disclose their IP to the **IPEC** (Intellectual Property Evaluation Committee) at the earliest date using an **IPDF** (Intellectual Property Disclosure Form).
3. It will be mandatory for students to submit an IPDF, countersigned by their supervisor(s), at the time of filing their B.Tech. report, M.Tech. and PhD theses.
4. The inventor shall assign the rights of the disclosed IP to IITK before leaving the institute and will agree to the terms and conditions for the sharing of any financial benefits received by the institute by commercialization of such IP.
5. Having made the disclosure, the inventors, both IITK and non-IITK personnel, shall maintain confidentiality of the IP during the period it is pending with IITK for the assessment of the possibility of commercialization and protection of IP, unless authorized in writing by IITK.

III. Evaluation of Intellectual Property

1. Evaluation of Intellectual Property will be done by the IPEC (Intellectual Property Evaluation Committee). Dean (R&D) will be the Chairman and the Head of the organization within IITK responsible for commercialization, will be the member secretary. The Director will nominate at least three additional faculty members with expertise or familiarity/experience in areas related to the IP.
2. Evaluation of IP means:
 - a) Assigning ownership of IP.
 - b) Determining whether an IP is innovative and fit for filing in India and foreign countries.
 - c) Determining whether the IP has a reasonable chance for commercialization.
3. After evaluation of IP, if IITK decides not to take the responsibility for the protection of the IP, then it will assign all the rights of the IP to the inventors.
4. Even in such cases, as in (3), IITK may take the responsibility of facilitating protection of the IP on case by case basis.
5. A decision on the annual renewal of IP rights will be taken by the IPEC. If IITK decides not to renew the IP, fully or partially, then it will assign the rights of the IP, wherever relevant, to the "inventors."

IV. Contracts and Agreements

All agreements related to IP, including, but not limited to the following categories, undertaken by any IITK personnel and students need to be approved by the institute:

1. Allegiance, Affirmation and Confidentiality Agreement.
2. Evaluation Agreement.
3. License Agreement
4. Technology Transfer (Commercialization) Agreement
5. Alternative Dispute Resolution Agreement

6. Classified Information Non-Disclosure (specific) Agreement

The Dean (R&D), with specific approval of the Director, will be the authorized signatory in all categories of agreements listed above.

V. Commercialization

1. IITK shall market the IP and identify potential licensee(s) for the IP to which it (i) has ownership and (ii) for which rights have been assigned to it.
2. For the IP where exclusive rights have not already been assigned to a third party, the creators may also contact potential licensee(s) on their initiative maintaining confidentiality and taking all necessary care to ensure that the value of the IP is not affected.
3. If IITK is not able to commercialize the IP in a reasonable time then the inventor(s) may approach IITK for assignment of rights of the invention(s) to them.

VI. Revenue Sharing

1. The net earnings from the commercialization of IP owned by IITKanpur would be shared as follows:

Case	Net earnings	Inventor(s)	IITK's Share	Service Account [*]
1	For the first amount Q	65%	25%	10%
2	For the next amount Q	45%	45%	10%
3	For amounts more than 2Q	25%	65%	10%

Additional guidelines for drafting an agreement, MOU, or a contract

This note is to be read as an addendum to the Board-approved IPR policy of the Institute, in particular Section C, Third-Party Ownership. It relates to IPR sharing when research/consultancy is financially supported partially or wholly by an

external organization. Government agencies such as DST waive any claim on IPR. In such instances, IPR will be held solely by IIT Kanpur.

1. *Intellectual Property Rights:*

Notes: Most companies are not willing to share IPR with the intention that they may gain advantage of monopoly profit. IPR, as an intangible asset plays a significant role in building an Institution. It is an important tool in economic growth. The Institute should try to keep its rights intact as far as possible. Following are various options (first being the best) in order to restrict dilution of IPR generated within IIT Kanpur.

- Where significant amount of resources are from IITK, **IITK shall be the sole owner** of any intellectual property (including but not limited to know-how, patents, copyrights, design rights, rights relating to computer software, data, and any other industrial or intellectual property rights) developed during the course of the MOU (Ref. Examples 1, 2 of Annexure A).
- When only a portion of its resources is supplied by the Institute, ownership of any intellectual property (including but not limited to know-how, patents, copyrights, design rights, rights relating to computer software, data, and any other industrial or intellectual property rights) developed jointly during the course of the MOU shall be vested in **both parties** of the Memorandum (Ref. Examples 3, 4 of Annexure A).

Consequently,

Both parties shall have the joint right to determine the commercial exploitation and disposition of such intellectual property, and both parties shall make joint applications for the registration of the same. Before any registration or commercialisation of any intellectual property takes place, the parties agree to reach a separate agreement covering issues such as exploitation of rights and revenue sharing.

- When a substantial portion of the cost of the activity is paid for by the third part, ownership of any intellectual property developed during this MoU can **remain with the other party** as specified in MoU entered for such research (Refer Examples 5, 6, 7 of Annexure A). However, as noted in the original IPR policy –

In cases of all IP produced at IITK, IITK shall retain a non-exclusive, free, irrevocable license to copy/use IP for teaching and research activities, consistent with confidentiality arguments where ever entered by IITK.

There are several attributes to be taken into consideration while deciding whether the Institute has invested significant/substantial/only a portion of its resources. Subsequently, the decision of sharing of intellectual property will be arrived at (Refer Annexure B).

2. *Patent filing charges:*

Notes: Patent filing outside the country is quite expensive. Hence, for securing IPR outside India, the Institute should negotiate for full payment of expenses by the second party but joint ownership of IPR. [This was agreed upon in the MoU with EADS France.] Following are the various options available, in diminishing order of priority.

- Option 1: IITK shall contribute not more than 50% of the total filing, prosecution and maintenance expenses for securing IPR (exact % to be defined at the time of filing) in India. In all other countries, the other party will pay for all charges and patent will be in the **name of both IITK and the other party**.
- Option 2: IITK shall contribute not more than 50% of the total filing, prosecution and maintenance expenses for securing IPR (exact % to be defined at the time of filing) in the countries that IITK identifies from the list of designated countries. In all other countries, the other party will pay for all charges and assign patent jointly **to IITK and the other party**. This provision includes countries where patent costs are so high that the Institute cannot make any meaningful contribution to the expenditure at all.
- Option 3: IITK does not contribute to the total filing, prosecution and maintenance expenses for securing IPR (exact % to be defined at the time of filing) in the countries that IITK identifies from the list of designated countries, except India. Here, the other party will pay for all charges and patent will be **assigned to the other party**. Within India, costs would be shared and patent will be in the **name of both IITK and the other party**.

3. *Use of IPR/research results:*

Notes: In case of use of results arising from research, the draft below is the Board-approved clause that should be included in the agreement even if IPR is owned by the other party.

For projects conducted at IIT Kanpur, all IP is produced within the Institute. Thus, IITK shall retain **a non-exclusive, free, irrevocable license to copy/use IP for teaching and research activities**, consistent with confidentiality arguments where-ever entered in the agreement.

4. *Publications:*

Notes: For any academic institute, publications of results (papers, thesis) are crucial for their very existence. Hence, IIT Kanpur should retain its right to publish research conducted within its laboratories (excluding confidential information) without consent/ written permission from the other party. As a result, delay in publications can be avoided. Following are various options that can be pursued:

- Option 1: Consent of the third party is not required for any publication arising out of intellectual property generated during the course of the contract.
- Option 2: Any publication arising out of the intellectual property shall be possible with simply a written note of information to the other party.
- Option 3: Any publication arising out of the intellectual property shall be possible with the consent of the other party. Such consent will be normally granted within 90 days and shall not be unreasonably withheld.
- Option 4: Any publication arising out of the intellectual property shall be possible with written notice to the other party. If required, publication will be delayed by 6-8 weeks to enable the other party to file a joint patent within the country or elsewhere.

5. *Background IPR:*

(IPR developed at IIT Kanpur *a priori* or independent of the Project)

If required, the following clauses may be included while building the MOU.

- Background IPR will remain the property of IITK.
- IITK gives non-exclusive rights to use the background rights based on which rights under the MOU are developed.

6. *Confidentiality:*

It is important to realize that confidentiality pertains to the researcher or consultant and his/her group, but not the Institute as a whole.

Thus, one of the following options may be followed.

- Faculty and team members involved in the project will receive confidential information. They will be personally responsible for non-disclosure of the confidential information.

- Non-disclosure obligation will remain valid up to the termination/expiry of the agreement.

OR

- Non-disclosure obligation will remain valid for 5 years after termination/expiry of the agreement.

OR

- Perpetual obligation: This situation must be avoided as far as possible. (In extreme instances, PI will give a letter to the Institute, assuring personal responsibility in perpetuity.)

7. *Dispute resolution:*

Hopefully, this situation does not arise at all. Yet, it needs to be drafted carefully and the PI alerted to its implications. In descending order of preference (the first being the most desirable), these clauses may read as follows:

- This Agreement shall be governed by Indian laws; exclusive place of jurisdiction shall be New Delhi (India). (Foreign courts are not allowed).
- Arbitration
 - a. In case of any dispute, the same shall be referred to the _____ of _____ and the Director, IITK for arbitration. Reference made shall be deemed to have been made under the provisions of the Arbitration and Conciliation Act, 1996 or any statutory modification/re-enactment thereof and rules made there-under.

Or

- b. in accordance with the Rules of Arbitration of the International Chamber of Commerce.

Or

- c. in accordance with the Arbitration Rules of the United Nations Commission on International Trade Law (UNCITRAL).
- Non-standard arrangements:
 - a. Arbitration shall be conducted in New Delhi, India.
 - b. MOU is silent regarding the place of arbitration. The place will also be decided as a part of arbitration.
 - c. The party that wants to file a case will give the other, the choice of place of arbitration.

8. *Payment terms:*

Release of payment must be clearly stated. Usual norms are the following:

- There has to be an initial payment to start the project (say 25%).
- Budget schedule with amount and date of payment is included as an article/clause of the MOU or as an annexure.
- All cheques are payable to Director, IIT Kanpur or Registrar, IIT Kanpur.
- Remark on Sponsored projects:
 - Budget includes Institute overheads.
 - IITK is exempted from payment of any income tax.
- Remark on Consultancy projects:
 - Budget should include service tax (for funding in Indian rupee) and Institute overheads.

9. *Deliverables:*

In a well-drafted agreement, the task-definition should be clear and precise. The following is thus recommended.

- Deliverables are clearly mentioned as an article/clause of the MOU or as an annexure.
- Statement of Work and dates of milestones to be achieved are spelt out.
- A full project proposal may be attached for completeness.

10. *Ownership of property:*

IITK will be the owner of equipment (and software) purchased out of the contract, until and unless provided otherwise in the contract.

11. *Duration:*

The MoU shall be effective from date of signing and shall remain in force for a period of _____ years (as agreed upon).

12. *Penalty clause:*

Such a clause is not acceptable. In other words, no penalty will be given by IITK for non performance or delay in performance during the course of the project.

13. *Security deposit:*

No security deposit will be paid by the Institute to start a project.

14. *Technology transfer agreement:*

Technology transfer agreements are initiated when a private party sees research conducted at the Institute in the form of a publication (conference or journal). The agreement should give reference to the publications of the technology being pursued.

The following warranties will apply to any development accomplished at the Institute.

- Any information, materials, services, intellectual property, other property or rights, granted or provided by either party pursuant to this agreement are on an *as-is-where-is basis*. IITK does not make any warranties of any kind, either express or implied, as to any matter including, but not limited to, warranty of fitness for particular purpose, or merchantability, exclusivity or results obtained from use.
- The Institute cannot give warranty of successful exploitation of the technology.

Third Party Indemnification

- In case, the other party transfers/assigns IPR acquired in technology transfer agreement developed by IITK, or transfers/sells IPR/product developed based on the technology during any project to any third party, the above clauses will also be applicable to third party.

15. *Coordinator:*

Name of the coordinator/Project investigator must be mentioned on the first page of the MOU.

16. *Signatory:*

As per prevailing norms, *Dean: Research and Development* is the signatory to all research and consultancy agreements. The PI signs the document as a witness. Prior approval of the Director is to be obtained through a note file.

Annexure A: Examples

Generous IPR sharing

1. Visakhapatnam Steel Plant (VSP) has a requirement to develop a Level-2 Automation for their LD Converters of Steel Melt Shop. Electronics Corporation of India (ECIL) along with InterralIT bid for the tender using Model Building Software developed by IIT Kanpur for the Steel making process. Since IIT Kanpur is contributing significantly in terms of technology, it is agreed that all intellectual property rights developed during the project shall *remain property of IIT Kanpur*. The duration of the MoU is for 18 months while IIT Kanpur will receive Rs. 14200000.
2. In collaboration with IISER Bhopal, IIT Kanpur is assisting in automation of academic, library, accounts, purchase and personnel cells. As IIT Kanpur is using all its expertise gained over a period of time in its own automation, all intellectual property related to the software and know-how will *rest with IIT Kanpur*. The duration of the agreement is 3 years with money involved of Rs. 53.02 lakhs.

Optimal IPR sharing

3. In a research agreement with European Aeronautic Defence and Space Company (EADS), EADS within the framework of its research program on Reconfigurable computing – high level specification, modeling and synthesis of run-time reconfigurable systems, wishes to obtain research services from IIT Kanpur. The duration of the agreement is 26 months and EADS shall pay 39600 Euros. It is decided that all intellectual property generated during the research activity will be *jointly shared*.
4. IIT Kanpur has developed split packing design in HiGee. Chevron is willing to demonstrate it in a specific application directed to treating gas streams to remove acid gas components. These development activities will be carried out at Chevron's laboratory facilities at one of its refineries with the cooperation of IIT Kanpur at no cost to IIT Kanpur. Through this agreement, IIT Kanpur is granting technology to Chevron. Chevron agrees to pay IIT Kanpur a royalty of USD 50000 for each installation of application by Chevron upto 20 such installations. It is decided to jointly own *program patent and program technical information*.

Harsh IPR sharing

5. In a research agreement with IHI Corporation, IHI has given a research outline "Development of outer-rotor Surface Permanent Magnet Synchronous Motor using electromagnetic analysis" and funded USD 17929. The project duration is 1 year. It was decided that any intellectual property shall be owned by IHI.

But, IIT Kanpur shall have a royalty free, non-exclusive, irrevocable license to copy/use IP for research and educational purposes.

In case IHI commercialise the project results, a reasonable royalty or financial recognition shall be negotiated in keeping with industry norms.

6. In a consultancy agreement with GE India Technology Center Private Limited, Bangalore, the Institute is providing services in the field of design and simulation of a STATCOM for harmonics. The project duration is 6 months.

It was decided that any intellectual property shall be owned by GE.

But, GE will grant IITK a paid up, royalty free, non-exclusive license for its internal research, educational and academic purposes perpetually.

7. In a cooperation agreement with Corus Technology BV, IITK and Corus wish to develop coated metal substrates for use in instance organic and polymer solar cells and organic and polymer light emitting diodes. Corus is paying a fixed sum of Rs. 4,464,720.00 to IITK.

All results generated will be the property of Corus.

Corus will include name of the inventors in the patent application and IITK shall have right to use, free of charge, the results and the know-how gained for research and development within the Institute.

Background IPR will remain with the Institute.

Annexure B: Deciding factors for IPR sharing

There are several parameters to be considered while deciding whether the Institute has invested significant or substantial or only a portion of its resources. To name a few:

1. Problem definition/innovator

In case of sponsored research, faculty or research staff identifies, defines, and describes the problem and submits it to the funding agency in the form of a project proposal.

In a consultancy project, the problem definition originates from a company or an organisation.

If intellectual property is generated around the original problem statement, the funding organisation has a fair claim to it. As a result IPR will be equally shared. Publications may be withheld for a specific time period till the company has commercialised the idea.

More often, IPR is generated during the course of problem solving and may only be peripherally connected to the original objective. The faculty/research staff and the Institute will then assert a dominant share in the IPR. In such case, IPR will be equally shared and both the parties will have equal opportunities to commercialise it.

2. Finance

- **For execution of the project**

Normally, the other party pays total funds needed for executing the project. But, it is just a notional cost of the project. There are several other costs (indirect cost) involved, incurred by the Institute such as lab space, computers, networking services, salary of the human resources, maintenance, some special purpose equipment.

Hence, the argument of the counter party to solely own the intellectual property is not viable.

- **For commercialisation**

Sometimes, the collaborating agency pays not just for the execution of the project but also royalty in case of commercialisation of the potential product. In such a case, intellectual property can be jointly shared with the other party (Refer Example 4 of Annexure A).

3. **Intellect/ human resources**

Under normal circumstances, faculty, research staff at the Institute put their intellectual inputs in the research activity. In such a case, sharing of intellectual property will not be less than 50%.

4. **Infrastructure**

In case the project is not executable without specific infrastructural facility available at IIT Kanpur, the intellectual property will be solely owned by IIT Kanpur.

In case, both the parties share infrastructure for the project (including space, computers and manpower), the intellectual property will be jointly shared.

5. **Background intellectual property/ know-how**

In case, the collaborating funding agency is interested in applying the background intellectual property of IIT Kanpur in its product, any further technological development will also be solely owned by IIT Kanpur (Refer Examples 1, 2 of Annexure A).

6. **Any other factor**

If in case, there are other factors not considered above, the decision related to the extent of sharing of intellectual property will be taken on a case-to-case basis.

20. Stores and purchase Manual

The BOG approved guidelines for purchase procedures as *Stores and Purchase Manual* http://www.iitk.ac.in/centralstores/store_purchase_manual.pdf.

21. Travel advance and settlement

For foreign TA/DA rules, please refer

http://web.iitk.ac.in/dord/rules/foreign_TA_DA_rules.pdf

For TA/DA rules for Institute employees, please refer

http://web.iitk.ac.in/dord/rules/TA_DA_rules.pdf

For TA/DA rules for Project staff, please refer

http://web.iitk.ac.in/dord/rules/TA_DA_Project_Staff.pdf

For DA eligibility, please refer

http://web.iitk.ac.in/dord/rules/Eligibility_of_DA.pdf

22. Project employments

I. Research staff designations and salary structure to be effective from September 1, 2009: http://web.iitk.ac.in/dord/forms/Project_Appointments.htm.

Table: A

Sl. No.	Designation	Minimum Qualifications	Salary Range existing	Revised Salary Range
1.	Consultant	Ph. D / Master's degree with significant experience and expertise in the relevant area	20000- 2000 - 35000	20000-2500-50000
2.	Senior Project Scientist	M Tech + 4 yrs experience/ Ph. D or M.Sc./ Equivalent* + 6 years experience	12000-1200-25000	18000-1800-36000
3.	Senior Project Engineer	Ph. D or M. Tech. + 4 years exp./ B.Tech /M.Sc + 6 Yrs Exp.	12000-1200-25000	18000-1800-36000
4.	Project Scientist	Ph. D or M. Sc./ Equivalent* + 4 years exp	10000-1000-22000	15000-1500-30000

Operational Manual for Research & Development Division

5.	Project Engineer	M. Tech + 2 years exp or B. Tech. + 4 years exp.	10000-1000-22000	15000-1500-30000
6.	Senior Project Associate	M. Tech or B. Tech / M. Sc. or Equivalent* + 2 years exp.	8000 - 800 - 18000	12000-1200-24000
7.	Project Associate	B. Tech / M. Sc. or Equivalent*	6000 - 600 - 15000	10000-1000-20000

- Equivalent (*) includes B-Tech / MBA / MCA / PG Diploma in Management / Information Technology (of duration of 2 years regular or 3 years' part time)
- No separate HRA and TA are applicable for the incumbents staying on the campus since the same are inbuilt in the consolidated salary.
- However, additional 15% HRA and 10% TA can be offered separately if the incumbent wishes to stay outside the campus.
- EPF is inbuilt in the consolidated salary.
- In place of EPF, OPD facility at Health Centre IITK and compulsory hospitalisation medical insurance package will be offered. However, no reimbursement of medical expenses be admissible.

Technical Staff:

Table: B

Sl. No.	Designation	Minimum Qualifications	Exiting Salary Range	Revised Salary Range
1.	Project Technician	B.Sc./Diploma Engg. + 4 years exp. or High School + ITI + 9 years exp.	5500 - 550 - 11000	8000-800-16000
2.	Senior Project Mechanic	Diploma Engg. or High School + ITI + 5 years exp.	4500 - 450 - 8000	7000-700-14000

3.	Senior Project Assistant	Graduate (B.Sc/B.A./BCo m. or equivalent) + 3 years exp.	4500 - 450 - 8000	7000-700-14000
4.	Project Mechanic	High School + ITI	4000 – 400 -7000	6600-660-13200
5.	Project Assistant	Graduate (B.Sc/B.A./B.Co m. or equivalent). or High School + 5years exp	4000 – 400 -7000	6600-660-13200

- No separate HRA and TA applicable on the above five positions as the same are inbuilt in the consolidated salary.
- EPF is inbuilt in the consolidated salary.
- In place of EPF, OPD facility at Health Centre IITK and compulsory hospitalisation medical insurance package will be offered.

Effective dates of Implementation and other Provisions:

The above proposed revision of the new structure of pay scales for research staff shall be implemented as follows:-

1. The revision of scales is effective from September 1, 2009 subject to the conditions mentioned below.
2. Provision of revised pay scales to the project staff in the existing projects shall be subject to explicit recommendation of the PI with an undertaking that the project will be able to absorb the additional financial burden in view of the above revision for the existing staff members. In the absence of the funds and approvals, all the research staff shall continue to draw the salary as per the existing structure of pay.
3. For the new projects, the PIs shall submit their project proposals and budget calculations as per the above proposed pay structure.
4. No arrears or any retrospective implementation of the revised scales are admissible under any circumstances.
5. The old scales and the new scales shall be in force hand in hand till further review and decisions.
6. The mapping of the revised structure shall be done with the corresponding scale and designation without any deviation.

7. The minimum start pay in the revised structure or the nearest step of the consolidated pay level shall be offered whichever is higher; when the migration from old to the new structure takes place.

Terms & Conditions of Employment:

1. Experience of working in relevant field, research lab, and workshop only.
2. At the time of selection, the selection committee can recommend a higher start by offering a maximum of five increments in case of experienced candidates. The higher start from the initial level of the scale can be calculated duly counting the number of years of past experience and offering one increment each for each year of service already put in, over and above the minimum number of years required towards applicable experience.
3. In case of satisfactory performance, there can be one increment on completion of one year. However, in case of deserving and excellent performance, there can be upto two increments for each year based on the specific recommendation and justification provided by the Principal Project investigator.
4. Extension of services from time to time can be given upto a maximum of one year in each instance.
5. In case of migration of a project employee from one project to another project, valid reasons and justification for such migration without the need for undergoing fresh selection process, be submitted. In those cases, the personal file No. shall remain the same.
6. If a person already working or worked earlier in any specific project of the Institute the last pay drawn can be taken as the basis for fixing the consolidated pay for the fresh position being appointed for.
7. In case of retired personnel from the Institute service, the academic qualifications can be relaxed commensurate with the experience and the designation with proper mapping to the designations and experience levels as mentioned in the above tables.
8. In case the employee has reached the last slot of the scale, stagnation increments of one for each year can be given upto a maximum of three years.
9. **Upgradation of a Project employee:** In case the PI considers to upgrade a Project employee within the same project, he/she after reviewing performance of the employee can recommend for upgradation without going through selection committee. However, in case of up-gradation of the employee to work in some other project, the case shall be put up through the selection committee for consideration. The upgradation should be justifiable in terms of additional qualifications and experience, acquired commensurate with the position for which being considered.

10. **Half-Time or Part-time Project Employment:** In view of the requirements and limited provisions in certain Projects, suitable candidates can be considered for Half Time employment in projects with suitable designation as per the above structure. However, the employee shall be paid only 50% of the respective salary payable to a full time employee. As per the project requirements, the working session can be decided in a flexible manner, like Morning or Evening shift.
11. **Adjunct employment or Joint employment in two projects:** If an expert or a professional is required for two projects at the same time or in view of financial provisions in any single project, a Project employee can be considered for Adjunct or Joint employment, thus facilitating for working in two projects simultaneously. The financial burden can be shared appropriately from each of the two projects. PIs of the two different projects shall be the joint signatories of the selection committee for such an appointment.
12. The maximum length of service for a project employee in normal cases cannot exceed five years.
13. **Payment of House Rent Allowance & Transport Allowance:**
(In case of Research Staff (Table A) staying outside only):
 - HRA @ 15% of the salary can be paid if recommended by the PI and approved by the sponsoring agency.
 - Payment of Transport Allowance: Transport Allowance also can be paid on recommendation by the PI and approval by the sponsoring agency.
14. **Leave Entitlements:**

Type of Employment	Casual Leave Per month	Total C/L entitlement in a Year	Annual Leave Per month	Total A/L entitlement in a Year	Medical leave without Pay
Project Contract employee	01	08	2 ½	30	Maximum 30 days on production of valid medical certificates

Note : *If medical leave (without pay) extends beyond 30 days at a time, such period of absence shall be counted as discontinuation of services and a new incumbent may be inducted in his/her place through the process of selection committee.*

15. **Insurance Cover:**

Short term contract project/Regular employees will be advised to enroll themselves under Group accidental, medical and life Insurance at their own cost. However, the Project Investigator may opt for 50% of matching contribution towards the cost of above insurance for the project employees, if the project finances provide for the same e.g. contingency budget head). Necessary re-imburement can be claimed by the employees on producing receipts. R&D office will empanel the medical and insurance agencies for this purpose.

16. **Medical Facilities:**

Routine OPD medical facility shall be provided at the Health Centre located within the Institute campus. The cases of serious illness may be referred to the Govt. hospital/Private hospital as per opinion of the medical authorities. For Project employees, medical facility for self only shall be provided in the Institute Health Centre without any re-imburement of cost of medicines. Any outside referral shall not be reimbursable. A medical booklet shall be provided to each employee by the ID Cell at the time of joining which has to be produced to the Health Centre staff at the time of obtaining medical treatment and returned on expiry of term/resignation/termination.

II. Engagement of skilled / semi-skilled / unskilled personnel under work assignment mode – Implementation of online approval system:

In order to carry out miscellaneous job functions required for the research projects of R&D, the system of engaging skilled / unskilled manpower on hourly basis is under practice. This method of engaging personnel is in practice for assignments such as electronic data processing, data entry, translation activity, content preparation, technical assembly, installation, and other unskilled & semi-skilled job functions etc., which are very much short-term in nature.

In order to simplify the procedure of engaging personnel under this category the following procedure shall be implemented.

The PI shall make a request for payment / sanction from Contingency / Salary Budget Head:

- (i) For payment of advance amount in the prescribed proforma
- (ii) For sanctioning of imprest in the prescribed proforma.
- (iii) Alternatively the PI can also spend the available funds and pay the Work assignment bills and subsequently claim reimbursement from the Contingency / Salary Head.

There is no need for a separate prior approval for engaging personnel on work assignment basis since the approvals shall be accorded along with the sanction of advance / imprest or reimbursement of the expenses under this category.

The PI can also authorise any permanent employee of the Institute for keeping the advance and making the payment and verifying the same on behalf of the PI in the prescribed payment voucher.

The PI shall make the payment of remuneration for different category of skilled/semi-skilled / unskilled manpower engaged on hourly basis from the imprest advance also under contingency or salary head of the project. The remuneration for a period of 26 days in a month is subject to a maximum amount of Rs. 10,000/-per month.

On payment of wages in the prescribed proforma, the PI shall submit the bills for recouping / adjusting the payment vouchers through Imprest / advance account existing in his or her name.

The work assignment for any particular person will be allowed for a period not more than 89 days at a time for any particular project.

No retired person from Govt. Service/ Institute Service can be hired under work assignment.

No person can be appointed on work assignment from more than one source i.e. one sponsored project/consultancy simultaneously.

III. Short Term Consultants / Experts / Specialists:

The services of short term Consultants / Experts/ Specialists can be hired in order to meet the requirements of a Project. The requisition for engagement of short term consultant shall be submitted by PI/Indenter and shall be approved by the Dean R&D. The Consultancy proposal should be submitted on the prescribed form after going through the standard terms and conditions prescribed therein. The Prerequisites for short term consultants are follows:-

- The short term consultant /expert / specialist should not be an employee of IIT Kanpur.

- Service Tax Registration No. should be mentioned.
- PAN No. of the consultant must be mentioned on the requisition.
- No Objection Certificate from the current employer of the consultant must be obtained.
- Bank a/c No. with Bank Name & Branch must be mentioned on the requisition form for short term consultants.
- Payment shall be made to the employer / parent institute of the consultant.
- A computerized invoice should be submitted by the consultant /expert / specialist.

IV. JRF / SRF of UGC / CSIR etc., for Students:

CSIR	Stipend	Contingency	
JRF	12000/-	Nil	
SRF	14000/-	20000/-	
RA	15000/-	50000/-	
AICTE	20000/-	25000/-	
UGC		Sciences	Non-Sciences
JRF	12000/-	12000/-	10500/-
SRF	14000/-	25000/-	20000/-

V. Assistantship to students:

The regular students of the Institute can be employed on projects on full time / part-time basis as the case may be as PRA/PSRA with the following Fellowship Structure:

Full time:

Category	Existing Rs. (Per month)	Revised Rs. (Per month)
Project Research Associate (PRA)	5000/- or above	8,000/- or above
Project Senior Research Associate (PSRA)	6000/- or above	12000/- or above

Part-time:

The hourly rate for students engaged on part-time shall be as follows:

Category	Existing Per Hour Rs.	Revised Per Hour Rs.
UG students	Rs. 40/- to 80/-	Rs. 60 /- to 100 /-
PG students	Rs. 75/- to 150/-	Rs. 100/- to 200 /-

Terms & Conditions:

- The verification of the grades of the B. Tech students applying for part time project employment be continued.
- The minimum CPI for employing B. Tech students for part time project work is 6.5.
- The employment of students be recommended by the Project Coordinator, Thesis Supervisor, DUGC/ DPGC Convener, Head in the prescribed proforma.
- Outside students to be engaged on the projects for part-time / full-time / summer employment should carry NOC from the current HOD of the Institution along with a bona-fide student certificate.
- Applicable Income Tax is deducted wherever, necessary for the remuneration / honorarium being paid out of the Project employment assignments.

23. Declaration for no interest earning on bank account for grants received

Institute allows the PIs to initiate the project work soon after receiving the sanction letter in anticipation of release of funds. Money received through grants is parked in the current account in bank on which the Institute does not earn any interest. Neither the Institute charges any interest on delay in reimbursement of expenditure by the funding agency nor does it earn interest on money received from the funding agency. This policy of the Institute provides for healthy project management and promoting research and development. The certificate to this effect is placed at http://web.iitk.ac.in/dord/certificate_nointerest.pdf.

Section C: Functions of the Office of R&D

Office of Research & Development was set up to provide specialised administrative and managerial support for the operation of sponsored research, consultancy and other related R&D activities of the Institute. It facilitates interaction with external agencies, both national and international. It also promotes and manages Institute-Industry interaction and all externally funded research and development projects. The key role of the office of R&D is to provide a creative atmosphere in research and development activities of the Institute. To say a few, functions are:

1. Promotion of Institute-Industry interactions: It provides helping hand in establishing collaborative research partnerships for undertaking creative and advanced research in emerging areas of interest to the industry.
2. Joint collaborative programmes: The Institute has signed several Memoranda of Understanding with Indian as well as international academic/research institutions and industries to strengthen its collaborative research efforts.
3. Technology Development and Transfer Mission: Management of transfer / licensing of technologies resulting from R&D activities of faculty, scientists and students of the Institute to industries / user agencies.
4. Administrating research projects: For administration, and smooth functioning of these projects, several cells have been created.

24. Project Management Cell

- Submission of Proposal: The project proposal for any sponsored/ consultancy/ workshops/ conference for funding should be submitted to the Dean: Research & Development for signature along with the endorsement cum letter of forwarding (<http://www.iitk.ac.in/dord/endorsement.htm>).
- The letter is signed by the PI. Forwarding of HOD/Head of the Center is required to ensure that sufficient resources are available, and the project can be executed.
- The softcopy of the proposal will be sent to the Office of records. The Dean R&D is the competent authority for approving all project proposals.
- Registration of the Project: When the project is sanctioned by the funding agency/industry, a duly filled new project registration form (http://web.iitk.ac.in/dord/forms/Project_Registration.htm) along with the sanction letter/ agreement/ MoU/ proposal needs to be submitted to the Office. A suitable project number is assigned.
- Cheque/Demand Draft/ECS is received from the funding agency by DoRD office. If it is received by PI, it is to be submitted to DORD office.
- A project number is assigned. Different budget heads with respective sanctioned amount are created to make the project operational.
- Operation of the Project: The funds and the budget of the project are maintained in the Office. However, the main authority to spend the amount from a project is the PI/Co-PI subject to the approval of the DORD.
- The expenses against respective budget head should not cross the sanctioned limit at any time. If any changes are to be done to the budgetary allocation, approval should be taken from the sponsoring agency and submitted to the Office.
- Submission of Progress Reports and other Deliverables: It is the responsibility of the PI to send timely reports and other deliverables. Statement of account to be submitted will be made available to the PI on request to the Office.
- Auditing of Funds: Every financial year, the R&D accounts are audited by Auditor General Uttar Pradesh (AGUP), which covers all the project accounts. AGUP gives a certificate mentioning accounts are in order and are

maintained according to best accounting principles with qualification (audit para), if any.

- Utilization Certificate: The donors demand utilisation certificate from time to time. The PIs shall coordinate with the Office of the Dean, R&D. The UCs can be downloaded from the DORD site and verify the expenditure and subsequently forward it to DORD for approval. Any format other than the online, as conveyed by the agency can be submitted by the PIs for the approval of DORD.

Funding agencies will not release the funds for the following year without UC/SE and annual progress report.

Based on the audited statements, utilization certificate of individual project is prepared, which may be sent to the funding agency by the PI. The UCs are stamped as "expenditure preaudited".

- Project Closure and Completion Report: For extension of the project, permission from the funding agency may be sought. Project is extended after submission of the letter from the funding agency.
- The Principal Investigator is responsible for submitting the final report, and other details as per the guidelines of the funding agency. A copy of this report will also be sent to the Office.

Remaining funds, if any, will be returned to the sponsoring agency. In case of consultancy project, the balance amount may be transferred to PDA/DPA. After this, the Project will be closed.

PI needs to submit in the project closure form duly filled, available on DORD website (http://web.iitk.ac.in/dord/forms/Project_Registration.htm).

- Overheads: As and when new project is opened or at the beginning of financial year, overheads are deducted. For calculation and division of overheads, please refer Guideline I Section B.
- Service Tax: Service tax at applicable rates is deducted from the project as and when cheque is received. The deducted amount of service tax is deposited in a suitable account in accordance with the rules of Government of India. Please refer 13, Section B.
- **To raise invoice/grants-in-aid Bill:** The PI is responsible for sending invoice or grants-in-aid bills to funding agency as per requirement of project budget. The invoices are forwarded by the Dean: R&D.

25. Personnel and Establishment Management Cell

- Research and support staff can be appointed on projects, if there is budgetary provision for staff salaries in the budget sanctioned for the project. All appointments on the project will be on a consolidated basis. Project appointments can be made on adhoc basis or through selection committee.
- All forms related to appointments can be checked at:
http://web.iitk.ac.in/dord/forms/Project_Appointments.htm.
- Research staff designations and salary structure to be effective from September 1, 2009:
http://web.iitk.ac.in/dord/forms/Project_Appointments.htm.
- Adhoc Appointment
Adhoc Appointment of project personnel can be made for not more than three months.

Purpose	Procedure
Adhoc appointment	<ol style="list-style-type: none"> 1. Request for adhoc appointment is to be submitted to DORD Office along with application and CV of the candidate. 2. Approved by the Director. 3. Appointment letter is issued. 4. Joining report is to be submitted by the employee.

- Regular Appointment of Project Personnel
The project positions are co terminal with the project maximum duration. Each time appointment can be made up to duration of 1 year and renewable from time to time up to maximum period of 5 years.

These appointments will be on a contractual basis at consolidated pay, and appointing authority for all project appointments of this type is the Director.

The consolidated amount to be offered will be as per BOG guidelines for regular appointment on a scale, and can be placed at an equivalent consolidated amount within the scale, depending on the project need and experience. Higher salaries may also be offered, provided the sponsoring agency agrees for the same.

Operational Manual for Research & Development Division

Purpose	Procedure
Appointment through selection committee	<ol style="list-style-type: none"> 1. Approval of advertisement and selection committee is submitted for the Dean's approval. 2. Selection committee consists of the Chairman, 2 academic staff and the PI as Convenor. 3. Position should be advertised on Institute's website. 4. Applications are received and interviews are conducted. 5. Report of selection committee is to be submitted along with copy of the advertisement, approval of the Selection Committee, Comparative Statement of Candidates, applications of the selected candidates. 6. Appointment letter is prepared. 7. Sent for Director's signature. 8. Joining report is submitted by the employee. 9. Agreement of appointment on Rs. 100/- stamp paper is to be submitted.
Extension of appointment	<ol style="list-style-type: none"> 1. Request for extension of appointment is submitted. 2. Approved by the Dean and the Director. 3. Extension letter is prepared. 4. Agreement of extension on Rs. 100/- stamp paper is submitted.

Student Research Associates from within and outside the Institute for assisting the research activity on part time/full time basis with hourly/monthly remuneration structure.

Form	Remarks
Request for Employment of Students in Project UG/MTech/Ph.D	<ol style="list-style-type: none"> 1. Can be appointed as Project Fellow or Project Sr. Research Asst. Sr. 2. Can be undergraduate student. 3. Approved by DUGC and HOD. 4. In case of student outside IIT Kanpur, NOC of HOD and bonafide certificate
M.Tech/Ph.D	<ol style="list-style-type: none"> 1. Can be appointed as Project Research Assistant, Project Sr. Research Assistant. 2. For Post graduate students 3. Approved by thesis supervisor, DPGC and HOD.

Work Experience Certificate: It gets released when no dues signed by all the authority is submitted.

26. Stores and Purchase Management Cell

All items purchased under a project are property of the Institute, though are to be used primarily for the Project. They are to be purchased using the Institute approved procedures. After the project terminates, they remain with the Institute, unless there is a specific provision or requirement of returning the same. Consequently, each item purchased will be recorded in the Asset Register. The BOG approved guidelines for purchase procedures as *Stores and Purchase Manual* http://www.iitk.ac.in/centralstores/store_purchase_manual.pdf.

The purchase of all goods or services in different categories and the broad guideline for the purchase is given below:

Purchase Category	Purchase process
<p>Category A (Direct Purchase): Up to Rs 50000/-</p> <p>Forms are available at http://web.iitk.ac.in/dord/forms/Project_Purchases.htm</p>	<ul style="list-style-type: none"> ➤ Request along with bills/cash memos is received in the Office. ➤ Voucher prepared in R&D ➤ Dean's approval is taken ➤ Sent to Internal Audit ➤ After Internal Audit clearance, it goes to DR (F&A) for signature. ➤ Sr. No. is given after checking fund availability ➤ Cheque/cash is prepared/ given.
<p>Category B: Indigenous Above Rs 50000/-</p> <p>Forms are available at http://web.iitk.ac.in/dord/forms/Project_Purchases.htm</p>	<ul style="list-style-type: none"> ➤ Purchase Proposal Request along with the following documents is deposited in the Office. <ul style="list-style-type: none"> ○ Minimum 3 quotations (for non-proprietary items) ○ Approval of Purchase Committee for purchases above Rs. 1.5 lakhs ○ Comparative statement of quotations ○ Recommendation of the Purchase Committee ➤ After checking fund availability, Dean's approval is taken ➤ If it exceeds Rs.2 lakh (consumables) and Rs. 10 lakh (Non consumables) Director's approval is taken ➤ Sanction sheet is prepared in the Office ➤ SS sent to audit section for clearance.

Operational Manual for Research & Development Division

	<ul style="list-style-type: none"> ➤ Dean's signature is taken on Sanction Sheet. If it exceeds Rs.2 lakh (consumables) and Rs. 10 lakh (Non consumables) Director's approval is taken on Sanction Sheet. ➤ Amount is committed in system (Ingress). ➤ Sanction Sheet is approved in the Office. ➤ Purchase order is prepared in the Office. ➤ Sent to Store & Purchase section for issuing it to R&D office, PI, and vendor. ➤ Payment voucher is prepared according to terms & condition of Purchase Order. ➤ 10% balance final payment goes to Internal Audit. ➤ After Internal Audit clearance, it goes to DR (F&A) for signature. ➤ Sr. No. is generated ➤ Cheque is prepared.
<p>Category C: Procurement of imported items</p> <p>Forms are available at http://web.iitk.ac.in/dord/forms/Project_Purchases.htm</p>	<ul style="list-style-type: none"> ➤ Purchase Proposal Request along with following documents is deposited in the Office. <ul style="list-style-type: none"> ○ Quotation/ Proforma invoice three copies. ○ List of Goods (6 copies) ○ Technical Literature/Catalogue of equipment ○ End Use Certificate (if required), ○ Non Manufacturing in India Certificate, ○ Proprietary Certificate (if applicable) ➤ Proforma invoice is valid for 60 days. ➤ After checking fund availability, Dean's approval is taken. ➤ Dean's approval is taken ➤ If it exceeds Rs.2 lakh (consumables) and Rs. 10 lakh (Non consumables) Director's approval is taken. ➤ If the purchase is more than one

	<p>crore, Dean R &D is the chairman of the purchase committee.</p> <ul style="list-style-type: none"> ➤ Sent to Import Section for sanction sheet ➤ DORD's signature is taken on Sanction Sheet ➤ Amount is committed in system (Ingress). ➤ Sanction Sheet is approved in the Office. ➤ Purchase Order is prepared in Import Section ➤ Letter of Credit (LC)/Telegraphic Transfer (TT)/Swift transfer received for payment from Import section. ➤ LC covering letter prepared by R&D office after getting signature of DR/AR it is sent to bank. ➤ Bank transfers the amount to Supplier's account in form of Telegraphic Transfer or LC. ➤ Debit /credit advice received from Bank and voucher is prepared in R&D office. ➤ SR is generated.
--	--

Note:

1. The standard form is available at http://web.iitk.ac.in/dord/forms/Project_Purchases.htm for the approval of the purchase committee.

After SR (i.e. entry in the system) is done, equipment, patents, non consumable items are entered in an Asset register. At the end of the year, the Asset register is finalized.

25. Advances Management Cell

Imprest/advances can be of various types like: Contingency, consumables, non consumables and travel advance.

The Principal Investigator and others associated with the project can travel for professional work to places within or outside the country. For the travel to be supported through project funds, Institute rules for travel entitlement will apply, and will be subject to availability of funds under budget head "travel" of the project.

Approval for taking advance

The PI can use the funds from the project for taking advance. Electronic approval from DORD with a copy to HOD is admissible. There is a common form for approval and advance. For travel, it is subject to the approval before travel. In case of urgent travel, e-mail to the Dean with a copy to HOD for approval will suffice. Only 4 advances can be taken a single time from one project. PI can also maintain imprest with him/her, in which case, he/she will have to fill up form for Project Permanent Imprest.

For travel to nearby places, taxis may be hired. Payment will be made as per the Institute's approved rates. Members can also travel through regular cabs or radio cabs – these can also be reimbursed on actual by submitting the bill. Where taxi fare is more than the approved rate, Dean may approve it in exceptional cases.

For travel, the class of travel will be as per his/her entitlement in the Institute. Higher class travel may be permitted if approved by the Dean and depending upon availability of funds in travel head.

Purpose	Process
Taking advance	<ul style="list-style-type: none"> ➤ Apply online/filled up form (for project advance/request for journey approval and for TA advance) is submitted to the Office. ➤ Voucher is prepared. ➤ Dean's approval is taken. ➤ Fund availability is checked at the time of Sr. No. generation. ➤ Advance reference number is generated in the system and intimated to the advance holder. ➤ Cheque/cash is prepared/ paid.

For taking advance, online application is available on DORD online.

Disclaimer: Before applying for online TA / equipment or and other advances, the PI or the requester has to ensure that the mandatory administrative approvals are obtained from the concerned HoD / the immediate superior / reporting official as deemed necessary. The DoRD approvals are subject to such kind of clearances and confined to the Project related financial and administrative approvals only.

Settlement of advance

After expenses are incurred, form Travelling allowance bill (for settlement of TA)/ Statement of Accounts (for settling contingency, consumables, and non consumables advance) is filled up. Original bills are attached. In case of Project Permanent Imprest, Statement of Accounts for Recoupment of Imprest is filled up.

Purpose	Process
Settlement of advance	<ul style="list-style-type: none"> ➤ Form is submitted to the Office. ➤ Adjustment is made in the system. ➤ Sent to the audit for clearance. TA bill is not sent to Audit. ➤ If advance is more than the expenditure, cheque/cash (Contingency/TA balance deposit slip) is deposited. ➤ If advance is less than the expenditure, Sr. No. is generated and cheque is prepared.

The forms related to TA advance are at [http://web.iitk.ac.in/dord/forms/Project Advances And Travel From Project.htm](http://web.iitk.ac.in/dord/forms/Project_Advances_And_Travel_From_Project.htm).

For foreign TA/DA rules, please refer [http://web.iitk.ac.in/dord/rules/foreign TA DA rules.pdf](http://web.iitk.ac.in/dord/rules/foreign_TA_DA_rules.pdf)

For TA/DA rules for Institute employees, please refer [http://web.iitk.ac.in/dord/rules/TA DA rules.pdf](http://web.iitk.ac.in/dord/rules/TA_DA_rules.pdf)

For TA/DA rules for Project staff, please refer [http://web.iitk.ac.in/dord/rules/TA DA Project Staff.pdf](http://web.iitk.ac.in/dord/rules/TA_DA_Project_Staff.pdf)

For DA eligibility, please refer [http://web.iitk.ac.in/dord/rules/Eligibility of DA.pdf](http://web.iitk.ac.in/dord/rules/Eligibility_of_DA.pdf)

26. MoU Cell

The Institute's research philosophy has progressed from inter-departmental collaboration, to inter-institutional partnerships at national and international levels. The Institute needs to sign several Memoranda of Understanding/contracts/agreements with Indian as well as international academic/research institutions and industries to strengthen its collaborative research efforts.

While getting into these research/academic agreements with agencies, laboratories, organizations, and companies, the document that is prepared needs to be couched in the right language. It carries legal weightage and can be very important under certain circumstances.

Some of the important points need to remember are:

1. **Intellectual Property Rights:** IPR is a buzz word in global economy. The Institute should try to keep its rights intact as far as possible. The Institute must protect its right to use the information generated from our research at any point in the future without having to seek permission in case IPR is owned by other party. The developer should have the right to publish the paper.

The Institute has approved an IPR policy document http://www.iitk.ac.in/siic/IP_policy.pdf.

2. **Developer/Coordinator/Project Investigator:** MOU should carry the name of the developer, who will accomplish the goals of the project. He is responsible for the execution of the project.
3. **Deliverables:** The wording of this section is most crucial in the text of the MOU. Accuracy is paramount. The timeline should be attainable. Deliverables should be clearly mentioned as an article/clause of the Agreement or as an annexure. Statement of Work and dates of milestones to be achieved are spelt out. A full project proposal may be attached for completeness.
4. **Overheads and taxes:** Budget should be inclusive of Institute overheads as per rules and service tax (if applicable). Budget should be annexed to the Agreement. There should be some initial payment (say 25%) to start the project.

5. **Conflict resolution:** The MOU should stipulate the jurisdiction of the local courts (including New Delhi). This is an important point for international MOUs.

The agreement will be governed by the Indian Laws. Applicability of foreign laws for dispute resolution is not allowed.

Or

Dispute may be referred for Arbitration under the provisions of:

- the Arbitration and Conciliation Act, 1996 or any statutory modification/re-enactment thereof and rules made there-under; or
- the Rules of Arbitration of the International Chamber of Commerce; or
- the Arbitration Rules of the United Nations Commission on International Trade Law (UNCITRAL).

Place of arbitration will be New Delhi (India)

Or

In case a party files a complaint (Plaintiff), the Defendant (against whom a claim or charge is brought) will have choice to designate the place of arbitration.

6. **Confidentiality:** PI and team members shall be responsible for non disclosure of confidential information. Perpetual non-disclosure of confidential information should be avoided as far as possible.

7. **Technology Transfer agreement:**

- The agreement should give **reference of the technology** to be transferred (in terms of publications/book).
- Any information, materials, services, intellectual property, other property or rights, granted or provided by IITK pursuant to this agreement are on an **as-is-where-is** basis.
- IITK does not make any warranty of any kind, either express or implied, as to any matter including, but not limited to, warranty of fitness for particular purpose, or merchantability, exclusivity or results obtained from use.
- The Institute cannot give warranty of successful exploitation of the technology.
- In case, the other party transfers/assigns IPR acquired in technology transfer agreement developed by IITK, or transfers/sells IPR/product developed based on the technology during any project to any third party, the above clauses will also be applicable to third party.
- Technology transfer agreement will be a stand alone agreement. Any further development for manufacturing the product/commercialization of

the technology will be governed by a separate service/consultancy agreement.

8. Any penalty or security deposit clause is not acceptable.
9. Equipment purchased out of the project funds will be owned by the Institute and will not be returned to the funding agency.

Also, additional guidelines for drafting of MoUs are given at:

http://www.iitk.ac.in/dord/guidelines_drafting.pdf

Some template/model MoUs of different types are available at:

<http://web.iitk.ac.in/dord/mou/>

A few sample MoUs of IITK with external agencies are available on:

<http://web.iitk.ac.in/dord/mou/samplemous/>

When MoU is clear from all angles and acceptable to both the parties, it is sent to the Director for approval along with the Note-File (summary of MoU).

A note-file is prepared, and signed by PI, forwarded by HOD. A format of note file is available at <http://web.iitk.ac.in/dord/Notefile.doc>. A sample note-file is available at http://web.iitk.ac.in/dord/Sample_notefile.pdf.

After approval, PI/HOD/DORD/DD/Director as the case may be, along with witness sign the MoU. A copy of MoU signed by both the parties is kept in records. In every BOG meeting, a list of MoUs signed from the last BOG meeting is placed on the table.

27. R&D Accounts Cell

Functions of the R&D Accounts Section:

- i. Generation of SR subject to availability of funds.
- ii. Issuance of cheques.
- iii. Ledger reconciliation (Cheque +cash section) is done on daily basis. Total daily payments are tallied.
- iv. LC/TT payment details are maintained.
- v. RTGS/ECS transfers to the bank accounts are traced.
- vi. Investments and related interests of funds are managed.
- vii. Bank reconciliations are made on monthly basis.
- viii. Receipt and payment account is prepared at the year end.
- ix. Income and expenditure account is prepared.
- x. Balance sheet is prepared.
- xi. Audit objections are clarified.

28. Research Space Management Cell

The Research Space of the Institute such as Media Technology Centre, Computer Centre, Systems Dynamic Lab, ACMS, ACES, Environmental Science & Engineering, NWTF, DST unit of nanosciences etc., are kept under the administrative control of R&D Division for allotment of the space / labs / rooms as per the research needs. Wherever applicable, user charges will be levied.

29. RA hostel Management

To house the ever increasing number of project employees, the first Research Associates (RA) hostel was constructed in the year 1997. The Institute has a policy of housing the scientific and research staff but not technicians and others, such as those on daily wages. For room allotment in RA hostel, project staff can apply online on http://web.iitk.ac.in/dord/forms/Project_Appointments.htm.

The allotment of RA hostel will be made on availability of space. In case of non availability of rooms, TA/ DA as per rules will be given.

The residence available with R & D Office shall be allotted to the following categories of Project Staff who are other than regular students of IIT Kanpur admitted through normal academic procedures, as per the following order of seniority:

- (i) CSIR/ UGC Sponsored Research Fellows
- (ii) Consultants
- (iii) Senior Project Scientists
- (iv) Senior Project Engineers
- (v) Project Scientists
- (vi) Project Engineers
- (vii) Senior Project Associates
- (viii) Others
 - (a) Project Associates
 - (b) Research Associates/ sponsored fellows
 - (c) Support staff involved in the Projects.

Present Status of the Accommodation

Type of Accommodation	Single		Married	Total Rooms	Remarks
	Male	Female			
Old RA	64	20	Nil	84	earmarked for single occupants only
New RA	6	5	37	64	For double occupants.
i) Family -37 Type					
ii) SIDBI -10					
iii) Samtel -03					
iv) Guest - 02 Room					
v) Office - 01					

Operational Manual for Research & Development Division

SBRA i)R&D staff – 25 ii)Doordarshan-13	-	-	25	38	For married persons
---	---	---	----	----	------------------------

Methodology of Application:

An employee of R & D Projects desirous of seeking accommodation inside the IITK campus may get application from the hostel Warden or it may be downloaded from the site of IIT Kanpur (http://web.iitk.ac.in/dord/forms/Project_Appointments.htm).

The application shall be supported by the appointment letter of the individual and shall be duly recommended by the concerned PI.

Accommodation Charges

Type of Accommodation	Monthly Rent (Rs.)	Electricity & water charges (Rs. Pm)	Penal rates per month (Rs.)	License Fee (Rs)
SBRA	1200/-	Based on actuals (as per meter reading)	75/-sq mtr	280/-
Old RA	1000/-	Based on actuals (as per meter reading)	75/-sq mtr	150/-
New RA (single occupancy)	1200/-	Based on actuals (as per meter reading)	75/-sq mtr	150/-
New RA (double occupancy)	750/- each occupant	Based on actuals (as per meter reading)	75/-sq mtr	150/-
Guest Room	100/- per day	Included in the monthly rent		

For each additional member/guest in the RA hostels, Rs. 50/- per day shall be charged in addition to the normal rent. However, the parents of the Project employees are exempted from these additional charges.

31. Ranking database

Various survey agencies (national and international) conduct survey for ranking of academic institutes. The data are related to the departments, students, course details, faculty, publications, awards, scholarships, projects, infrastructure, and placement.

The Office collects data from different sections in the Institute and provides the survey agency with the latest data.

Section D: Initiatives by the Office of R&D

32. IITK REACH (REsearch And CHallenges) Symposium

<http://www.iitk.ac.in/reach/2007/index.htm>

The Institute organises a series of annual symposium to showcase the ongoing research on campus and to promote interdisciplinary research & interaction amongst faculty, students, and research staff of the Institute. IIT Kanpur REACH symposium is essentially a brain storming activity that should hopefully become a flagship event of the research calendar of IIT Kanpur.

Each year, the focus is on a few major themes of research in the Institute. Distinguished external researchers, faculty and students working in these areas are invited to speak on their work in a way that is intelligible to a general audience.

Various themes for REACH were Biomimetics: Designs Inspired by Living Systems, Future of Energy, Scientific Methodology of Forecasting, The art of experiments, Controlling and living with oscillations, and Materials for tomorrow.

33. Institute lecture series

<http://www.iitk.ac.in/dord/DORD/instlecture.pdf>

The Institute has a tradition of organizing Institute lectures on topics of general interest delivered by distinguished personnel with outstanding achievements.

34. Science Day

35. Publications

a. Directions <http://www.iitk.ac.in/infocell/iitk/newhtml/newsletter.htm>

Directions is a scientific magazine of the Institute. The magazine is a platform to reflect upon the Institute's ongoing research and development work in many different arenas. It offers a venue where we attempt to present the state-of-the-art research endeavors of our past and present faculty members as popular science articles. A typical special issue of the magazine contains articles written by faculty of the Institute in a particular field of science and technology reviewing developments in that particular field with focus upon the Institute's contribution in relevant areas.

The magazine is the voice of the Institute scientific community, its shared view of ideas. Shaped out of contributions from the members, it most aptly symbolizes the spirit of collective endeavor guiding the Institute as it confronts the present and the future challenges.

Till todate, the themes of various Directions issues were International collaborations, Success stories of interdisciplinary research, Soft computing, Product design and media communication, Smart materials and structures, Display technology and organic semiconductors, Nanoscience and nanotechnology, Optimization, and High performance computing.

b. Notes on Engineering Research and Development (NERD)

<http://nerdmag.org/>

NERD is an exciting, student-led publication in magazine format. The magazine focuses on original research being carried out by students at IIT Kanpur. It includes experiences based on summer projects, internships, conferences; biographical profile of a woman scientist to encourage female students to take up research; new pedagogical techniques adopted; policy and perspective articles for some initiatives in their embryonic stages; and various general interest articles.

c. Convocation report <http://www.iitk.ac.in/dord/convocationreport.htm>

The Office also prepares Director's report presented at the Convocation which gives information about R&D activities during the year, students' activities, and graduation data.

d. Annual Report <http://www.iitk.ac.in/dord/annualreport.htm>

Annual report is the report about the Institute that contains information about faculty, academic programme, Research & Development, Central facilities, facilities to students, placement, services and amenities, publications, books, patents filed.

The Office collects data from all sections and prepares the report, which is placed before the Parliament of India.

Section E: Automation

36. DORD online

DORD online is a portal that gives access to PIs to view their project details like receipts and expenditure from project, advances request, details of project employees at http://oa.cc.iitk.ac.in:8181/Oa/Jsp/Main_Frameset.jsp?frm=lgn.

For instructions about how to use DORD online system, please refer the *Help Document* after logging in DORD website.

Welcome *ABC*, you have privilege to access the following Office Automation Services:

Accounts Information NEW! Now you can Update your's Personal Information

- **DORD - Online [Help Document](#)**
- **Health Center- OPD Module**
- **RA Hostels Management System**

[Logout](#)

Developed by, Office Automation, Computer Centre 228,227 Indian Institute Of
Technology Kanpur, India -208016.
Contact No. : 7352/7747. Mail At: OaAdmin@iitk.ac.in
© 2000-2009. All rights Reserved.

37. List of Forms

All forms are available at <http://www.iitk.ac.in/dord/dordforms.htm>.

Project Proposal Form

Faculty and people have creative ideas of research and development in the area of science, engineering, management, economics, policy, etc. The funding agencies provide financial assistance for realization of these ideas depending upon their priorities. Such ideas are written in the form of proposal which includes description of the project, expected output, timeline, budget etc.

Different funding agencies have different formats of project proposals. http://web.iitk.ac.in/dord/forms/Project_Proposal.htm

Project appointments

http://web.iitk.ac.in/dord/forms/Project_Appointments.htm

Form	Purpose	Enclosures/Remarks
Request for Adhoc Appointment	Adhoc appointment	---
Approval of Advertisement & Selection Committee	Pre-approval for appointment through selection committee	---
Report of Selection Committee	Appointment through selection committee	<ul style="list-style-type: none"> ➤ Copy of the advertisement Approval of the Selection Committee ➤ Comparative Statement of Candidates ➤ Applications of the selected candidates
Request for Extension of Appointment	For extension of appointment	---
Request for Work Assignment	Work assignment	----
Request for engaging short-term Consultants/ Personnel who are not the employees of IIT Kanpur for Project Work	For engaging short-term Consultants/ Personnel	Resume

Operational Manual for Research & Development Division

Request for release of remuneration/consultancy charges for engaging short-term Consultants/ Personnel who are not the employees of IIT Kanpur for Project Work	For release of remuneration/consultancy charges	----
Request for Full Time/ Part-Time/Summer Employment of Student on Project	Full Time/ Part-Time/Summer Employment of student	---
Appointment of Project Research Assistant & Project Senior Research Assistant		Resume

Project registration

http://web.iitk.ac.in/dord/forms/Project_Registration.htm

Form	Purpose	Enclosures/Remarks
Registration Form for New Projects	New project opening	Sanction letter/ Agreement/ MoU/ Proposal and quotation
Request for Project Extension	Extension of project	Revised sanction letter
Request for closure of project	Closure of project	Balance has to be nil
Request for New login and password for DORD online review account	DORD online access	Approval of the Dean is required.
Form for Transfer of Funds from User's A/c to IITK/PCC/9255	Debit of online charges to salary/project account	---
Receipt Bill for Consultancy	For deduction of service tax, overheads on amount received	<ul style="list-style-type: none"> ➤ Cheque ➤ PI has to tick whether equipment will remain with IITK or not.
Receipt Bill for Testing	For deduction of service tax amount received	<ul style="list-style-type: none"> ➤ Cheque ➤ PI has to tick whether equipment will remain with IITK or not.

Operational Manual for Research & Development Division

Project Telephones	For debiting telephone charges to project	<ul style="list-style-type: none"> ➤ Forwarded by the HOD. ➤ Approval of the Dean is required.
Request of Transferring Amount to PDA	For transferring amount from project to PDA	Approval of the Dean is required.
Request of Transfer of expenditure between Two Projects or Expenditure Heads within the same Project	For transferring expenditure from one project to other	Approval of the Dean is required.

Project purchase forms

http://web.iitk.ac.in/dord/forms/Project_Purchases.htm

Form	Purpose	Enclosures/Remarks
Purchase proposal request form (indigenous)	Purchase of equipment	<ul style="list-style-type: none"> ➤ 3 quotations ➤ Approval of Purchase Committee for purchases above Rs. 1.5 lakhs ➤ Comparative statement of quotations
Purchase proposal request form (import)	Import of equipment	<ul style="list-style-type: none"> ➤ Quotation/ Proforma invoice three copies ➤ List of Goods (6 copies) ➤ Technical Literature/Catalogue of equipment ➤ End Use Certificate ➤ Non Manufacturing in India Certificate ➤ Proprietary Certificate (if applicable)
Purchase payment not exceeding Rs. 50,000/-	For direct purchases not exceeding 50000/-	<ul style="list-style-type: none"> ➤ Bills/cash memos ➤ Although single quotation is admissible in case of standard items, it is however advisable to get more than one quotation for competitive rates.

Project advances and travel forms

http://web.iitk.ac.in/dord/forms/Project_Advances_And_Travel_From_Project.htm

Project advance

Form	Purpose	Enclosures/Remarks
Form for Project Advance from a Project	Advance for Contingency, consumables, non consumables	---
Statement of Accounts for Settlement of Temporary Advance	Settling advance for Contingency, consumables, non consumables	Bills
Form for Project Permanent Imprest	For maintaining imprest	---
Statement of Accounts for Recoupment of Imprest	For recoupment of imprest	Bills
Contingency Balance Deposit Slip	For depositing excess advance taken	Cash/cheque

Travel advance

Form	Purpose	Enclosures/Remarks
Request for Journey Approval and & TA Advance	For travel advance	---
Travelling Allowance Bill	For settling travel advance	Bills
TA Balance Deposit Slip	For depositing excess advance taken	Cash/cheque

Leave application and disbursement form

http://web.iitk.ac.in/dord/forms/Leave_Application_And_Disbursement.htm

Leave application form

Form	Purpose	Enclosures/Remarks
Application for Annual/Casual Leave for project employees	Annual/Casual Leave	---
Application for Casual Leave	Casual Leave	---
Application for Earned Leave / Half-Pay Leave / Extraordinary Leave	Earned Leave / Half-Pay Leave / Extraordinary Leave	---

Disbursement form

Form	Purpose	Enclosures/Remarks
Disbursement from Consultancy Fund	For distribution of honorarium/consultancy fees	Justification in the form of hours put in and the nature of work should be included.
Disbursement of Testing Fee	For distribution of testing fees	---

Miscellaneous forms

<http://web.iitk.ac.in/dord/forms/Miscellaneous.htm>

Form	Purpose	Enclosures/Remarks
IITK Faculty visit to Technical Universities in Federal Republic of Germany (Under MoU between the DAAD and the IITs)	Visit to Technical Universities in Federal Republic of Germany	<ul style="list-style-type: none"> ➤ 2 duly filled application forms ➤ 2 copies of C.V. ➤ 2 copies of list of publication ➤ 2 copies of detailed description of project to be undertaken ➤ 2 copies of correspondence with German counter part proposed stay ➤ 2 copies of detailed itinerary of visit including names of professors/scientists
No Dues Certificate	After resignation, for getting caution money	---

Operational Manual for Research & Development Division

Junior Fellowship Report)	Research (Joining Report)	Joining report for student getting JRF	---
Form for Reimbursement of Contingency to the Fellow's for Financial Year			

Prepared by:

Avanti Joshi
Office of Research & Development
IIT Kanpur