

**GENERAL INFORMATION AND FORMAT**

**FOR SUBMISSION OF PROJECT PROPOSALS  
FOR FINANCIAL ASSISTANCE**

**INSTRUMENT DEVELOPMENT DIVISION**



**GOVERNMENT OF INDIA  
MINISTRY OF SCIENCE & TECHNOLOGY  
DEPARTMENT OF SCIENCE & TECHNOLOGY  
TECHNOLOGY BHAVAN, NEW MEHRAULI ROAD,  
NEW DELHI – 110 016**

## **GENERAL INFORMATION**

The Department of Science & Technology (DST) under its Instrument Development Programme has been promoting and supporting activities related to indigenous development of selected instruments in the country. During recent past, DST has supported the development of instruments such as IR Spectrophotometer, UV-VIS Spectrophotometer, Atomic Absorption Spectrophotometer, Soil Salinity Tester, Ion Selection Electrodes, Digital Tide Gauge etc. at various R&D institutions. This has resulted in development of these instruments and subsequent transfer of know-how to various production agencies for their commercial production.

## **IDENTIFIED AREAS**

Following areas have been identified and project proposals may be submitted for development of instruments/sensors in these areas :-

- Analytical instruments;
- Environment Monitoring and Pollution Control instruments;
- Laser based instruments;
- Instruments for Food Processing;
- Medical Instruments;
- Test & Measuring instruments;
- Geo-scientific instruments;
- Agri-electronic instruments;
- Textile instruments; and
- Sensors.

## **WHO CAN SUBMIT PROJECT PROPOSALS**

The Project Proposal could be submitted for financial support by scientist/ engineers/ technologists working in Universities and other academic institutions; R&D institutions/ laboratories having adequate infrastructure and facilities to carry out R&D work.

Financial support is provided only for staff salaries, equipment, consumables, internal travel and other miscellaneous items. No support is provided towards basic infrastructure and building.

The investigators/ R&D Group should have adequate experience and expertise in the relevant area of instrumentation.

## **PROCEDURE FOR SUBMISSION OF PROJECT PROPOSALS**

Five (5) copies of the project proposal and a soft copy should be submitted in the enclosed format. Please ensure that following documents have been completed and attached in original with one copy of the proposal.

- i. Certificate from the investigator (given on page 1 of the format); and
- ii. Endorsement from Head of the institution on Letter Head (given on page 2 of the enclosed format).

These documents may not be attached with other 4 copies of the project proposal. Application received without above documents/with incomplete information under each time of the format will not be entertained.

The project proposal may be sent to :

The Adviser & Head  
Technology Development and Transfer Division

Instrument Development Programme  
Department of Science & Technology  
Technology Bhavan, New Mehrauli Road  
NEW DELHI – 110016

The proposal may be submitted any time during the year.

### **POINTS TO BE KEPT IN MIND WHILE SUBMITTING PROJECT PROPOSALS**

#### 1. Involvements of industries

It is envisaged that the end product of development shall be transferred to industries for commercial production. Hence industry (s) are required to be associated with each project right from the beginning with financial contribution of the total cost of the project .

In addition to the above to encourage the industry so that industry could undertake R&D in the field of instrumentation. Support to industry could be extended in many forms such as (i) providing grant for supporting equipment only : (ii) sharing cost of the research programme on 50:50 basis; (iii) providing loan on soft terms; and (iv) conditional grant etc. Industry in turn may associate national institutions/ academic institutions, as they consider relevant, to complete the project. The Board considered various pros and cons of the options and decided that for R&D projects to be undertaken by industry having recognized R&D laboratories, the department may provide 50% of the cost of the consumables to the industries, to begin with. If the programme is a joint programme with an institution, in addition to the 50% of the cost of consumables to the industry, the department may support the institution for the equipment. The rest of the cost both at the institution and industry is to be funded by the industry. The IPR, in any case, will be shared by the industry, DST and the institution, if any, as the case

may be. In case the industry returns the DST share to it i.e. 50% of the consumables cost. IPR may be re-assigned by DST to industry, and the institution if any.

As far as possible the product should have sufficient users in the country and there should be adequate demand for the product in the country.

## 2. Project Duration

The projects should be time-bound normally for a duration of 2-3 years depending upon the instruments/technologies to be developed.

## 3. Monitoring of the Project

Implementation of the projects are monitored regularly by the Department of Science & Technology through a Committee of Experts. Monitoring is done normally four times a year.

## **GENERAL TERMS AND CONDITIONS FOR THE GRANT**

1. The Institution where project will be implemented, will assume financial and other administrative responsibilities of the project.
2. In case of multi-institutional project the Principal Investigator has to obtain formal agreement from the collaborating institutions/scientists.
3. International travel is normally not permissible under the project.
4. The manpower recruited for the project should be paid as per the rules of the institute and guidelines of the Government of India. (Please see page 6). The posts which are not covered under the guidelines but permissible under projects at host institute are also permitted.

The staff that may be employed for the project by the organization are not to be treated as employees of the Government of India and the deployment of such staff at the time of termination of the project will not be the concern / responsibility of the Government of India.

5. It is the policy of DST to maximize the use of equipment. In this light, investigator shall permit the use of spare or idle capacities of equipment procured under the project by bona fide users (research workers in others DST funded projects or other projects of the institute).
6. All the assets including equipment acquired and prototypes fabricated from the grant will be the property of Government of India and should not without the prior sanction of the Department of Science & Technology, be disposed of, or utilized for purposes other than those for which the grant has been sanctioned.
7. The Principal Investigator/ organization will be required to furnish progress reports every three months on the progress made on all aspect of the project including expenditure incurred on various approved items during the period.
8. The comptroller and Auditor General will have the right to access to the books and accounts of the organization for grants received from the Government.
9. The organization would maintain separate account for the project. The grant should be kept in a bank account and the interest earned should be reported to the Department of Science & Technology. The interest thus earned will be treated as a credit to the organization and will be adjusted towards further installments of the grant.
10. Grant can be terminated by DST at any stage if it is convinced that the grant has not been properly utilized or appropriate progress is not being made.
11. If the Principal Investigator wishes to leave the organization where the project is based, the organization/investigator will inform the same to DST and with its consultation evolve steps to ensure successful completion of the project, before relieving the Principal Investigator. The Investigator should submit five copies of complete and detailed report of the work done by them on the project before leaving the organization.

12. Sale proceeds, if any, of the components, prototypes, pilot plants etc. fabricated as a result of the development of the project arising directly from funds granted by the Department of Science & Technology shall be remitted to the Government of India. The Government of India, may, at its discretion allow a portion of such receipt to be retained by the organization.
13. The know-how generated from the project would be the property of the Government of India and any receipts by way of sale of know-how, utilization of know-how for production, royalties etc. shall belong to the Government of India. The Government of India, may, at its discretion, allow a portion of such receipts to be retained by the organization.
14. The Principal Investigator / organization will prepare all the documents that would be required for the transfer of know-how to the production agency/agencies and submit them of DST as and when required. The organization will be responsible to transfer the know-how developed to the production agency/agencies and supply all the needed information to the production agency/agencies as and when required.

### **GUIDELINES ON OVERHEAD EXPENSES**

Following amount will be provided to the host institution as part of the project budget towards meeting their costs for overhead expenses including infrastructure facilities etc :-

- i. 20% of the total project cost with an upper limit of Rs.5.0 lakh for educational institutions and Rs.3 lakh for laboratories and institutes under S&T agencies/departments, will be provided as a part of the project, and
- ii. On projects costing more than Rs.50 lakhs, the quantum will be decided on a case to case basis.

**FORMAT FOR  
SUBMISSION OF  
PROJECT PROPOSAL**



**CERTIFICATE FROM THE INVESTIGATOR**

**Project Title**

1. I/We agree to abide by the terms and conditions of the R&D grant.
2. I/We did not submit the project proposal elsewhere for financial support.
3. I/We have explored and ensured that equipment and basic facilities (enumerated in the proposal) will actually be available as and when required for the purpose of the projects. I/We shall not request financial support under this project, for procurement of these items.
4. I/We undertake that space time on permanent equipment (listed in the proposal) will be made available to other users.
5. I/We have enclosed the following materials :

<b><u>Items</u></b>	<b><u>Number of copies</u></b>
a) Endorsement from the Head of Institution. (On letter head)	One
b) (This) Certificate from Investigator(s)	One (In original attached with one copy of the project proposal)
c) Copies of the proposal in DST format (Pages 3 o 11)	20

Name and signature of Investigator

Date .....

Place .....

## ENDORSEMENT FROM THE HEAD OF THE INSTITUTION

(To be given on Letter Head)

### Project Title :

1. Certified that the Institute welcomes the participation of Shri/Smt..... as the Principal Investigator and Shri/Smt.....as the other investigator (s) for the project and that in the unforeseen event of discontinuance by the Principal Investigator, the other investigator (s) will assume the responsibility of the fruitful completion of the project.
2. Certified that the equipment and other basic facilities as enumerated in Section II – Part B and such other administrative facilities as per terms and conditions of the grant, will be extended to the investigator (s) throughout the duration of the project.

Name and signature of the  
Head of the Institution

Date :  
Place :

## PROJECT SUMMARY

**Project Title:**

**PI:**

**Contact No. Mobile and Office:**

**Email ID:**

**Co- PI's:**

**Total Cost:**

**Duration:**

**Manpower:**

**Equipment:**

**Industry Partner:**

**Objectives:**

**Deliverables:**

**Budget Details:**

Sr. No.	Items	Budget( in Lakhs)			
		1 <sup>st</sup> Year	2 <sup>nd</sup> Year	3 <sup>rd</sup> Year	Total
1.	Salaries/ Wages				
2.	Equipments				
3.	Consumables				
4.	Travel				
5.	Contingencies				
6.	Overhead Expenses*				
	<b>Total</b>				

**Any other relevant information:**

## FORMAT FOR SUBMISSION OF PROJECT PROPOSALS

### PART – A

**1. Project Title :**

**2. Broad Area :**

(Tick the concerned area of the project)

- a) Analytical Instruments ( )
- b) Environment Monitoring and Pollution Control Instruments ( )
- c) Instruments for Food Processing ( )
- d) Laser based Instruments ( )
- e) Medical instruments ( )
- f) Test & Measuring Instruments ( )
- g) Geo-scientific Instruments ( )
- h) Agri-electronics instruments ( )
- i) Textile Instruments ( )
- j) Sensors ( )
- k) Industrial Instruments ( )
- l) Other area (Please specify) ( )

**3. TOTAL COST OF THE PROJECT:**

**4. PROJECT DURATION :**

**5. INSTITUTION / ORGANIZATION:**

**6. OTHER PARTICIPATING / INTERACTING AGENCIES :**

(Please enclose their letter regarding their willingness to participate in the project)

**7. PRINCIPAL INVESTIGATOR :**

Name :

Designation :

Institution :

Address :

**8. OTHER INVESTIGATOR (S)**

i. Name :

Designation :

Institution :

Address :

ii. Name :

Designation :

Institution :

Address :

**9. NAMES AND ADDRESSES OF EXPERTS  
(UPTO 10) WORKING IN THE SUBJECT/AREAS:**

**10. NAMES AND ADDRESSES OF PERSONS/ INSTITUTIONS  
(UPTO 10) INTERESTED IN THE OUTCOME OF THE PROJECT:**

**11. SUMMARY OF THE PROJECT (MAXIMUM 150 WORDS)**

## **PART – B**

- 1. OBJECTIVES OF THE PROJECT :**
- 2. APPLICATIONS OF THE INSTRUMENTS / SYSTEM / SENSOR TO BE TAKEN UP FOR DEVELOPMENT.**
- 3. USERS / USERS AGENCIES :**
- 4. ESTIMATED REQUIREMENT (NO. OF PIECE PER YEAR) OF THE PROPOSED INSTRUMENT / SYSTEM :**  
(Please mention how the estimated requirement is worked out, i.e. through interaction with users; market survey etc.)
- 5. ESTIMATED COST OF THE INSTRUMENT /SYSTEM AFTER DEVELOPMENT :**  
(Please indicate the cost of the components required for making one unit and indicate estimated cost at which instrument will be available to users after development).
- 6. THE COST OF SIMILAR IMPORTED INSTRUMENTS :**
- 7. PRODUCTION AGENCY / INDUSTRY :**  
(Please see page 3 of General Information. Please annex willingness/commitment from the production agency to undertake production of instrument after development and commitment for financial contribution for the project).
- 8. REVIEW OF STATUS AND TECHNOLOGY TRENDS IN RESPECT OF INSTRUMENT / SYSTEM TO BE TAKEN UP FOR DEVELOPMENT :**
  - a) International status of development.
  - b) Current status in our country.
  - c) Status in your organization/Review of expertise available with proposed investigating group in the subject of the project.
  - d) Gaps to be covered through proposed work with special reference to the proposal.
- 9. TECHNICAL DETAILS :**
  - a) Features of the instrument / system proposed to be taken up for development.

- b) Specifications.
- c) Please make a comparison of the system taken up for development with similar products if available in international market indicating similarities of differences.
- d) Description of various techniques and reasons for choosing the particular technique of measurement.
- e) Principle or operation.
- f) Block/schematic/circuit diagram.
- g) Description of various sub-systems etc.
- h) How calibration, standardization, testing etc. will be achieved? (Please describe in brief procedures/methods for these).  
(Please give references wherever applicable).

## **10. WORK PLAN :**

### **b) Methodology :**

Please describe how the work (various steps/activities involved) will be carried out including linkages with production agency & users so that the instrument/ system is development successfully and know – how is transferred to the production agency (s).

### **c) Time schedule of activities :**

Please give bar chart indicating important activities and time duration from start to end :

## **11. FACILITIES AVAILABLE AT YOUR ORGANISATION WHICH ARE RELEVANT / USEFUL IN IMPLEMENTING THE PROJECT AND WILL BE AVAILABLE TO YOU DURING THE IMPLEMENTATION OF THE PROJECT :**

A. Infrastructural facilities (Tick the appropriate box)

Item	Yes	No	NR*	Item	Yes	No	NR*
a) Workshop				g) Transportation			
b) Water & Electricity				h) Administrative & Secretarial support			
c) Standby power supply				i) Library facilities			
d) Laboratory Space & Furniture				j) Computational facilities			
e) Air Conditioned room for equipment				k) Any other (Please mention)			
f) Telecommunication							

\* NR : Not Required.

B. Available equipment (including test & measuring, calibration etc.) and accessories relevant to the project :

S.No.	Name of equipment and accessories	Model and Make	Remarks
1.			
2.			
3.			

NOTE : Please make sure that the aforesaid facilities and equipment will be available for the project.

C. Available manpower

S. No.	Name & Designation	Area of specialization
1.		
2.		
3.		



**12. A. BUDGET ESTIMATES :**

Sr. No.	Items	Budget			
		1 <sup>st</sup> Year	2 <sup>nd</sup> Year	3 <sup>rd</sup> Year	Total
1.	Salaries / Wages				
2.	Equipment				
3.	Consumables				
4.	Travel				
5.	Contingencies				
6.	Overhead expenses*				
	<b>Total</b>				

\* For the organization of the PI towards meeting their costs for overhead expenses on the project including infra structural facilities etc. Please see Annexure – 3 for details.

**12. B. BUDGET FOR SALARY / WAGES \*\*:**

Sr. No.	Designation	Scale of pay	Monthly emoluments	Number	1 <sup>st</sup> Year	2 <sup>nd</sup> Year	3 <sup>rd</sup> Year	Total

\*\* Please see Annexure – 2 for guidelines and other conditions of service for personnel participating in R&D projects.

**Justification for manpower required**

**12. C BUDGET FOR EQUIPMENT :**

Sr. No.	Equipment / Accessories	Make & Model	Imported / Indigenous	Estimated Cost	F.E. Component
<b>TOTAL</b>					

**Justification for equipment proposed**

**12. D BUDGET FOR CONSUMABLES MATERIALS :**

(Rs. Lakhs)

Sr. No.	Items	Quality	Budget			
			1 <sup>st</sup> Yr	2 <sup>nd</sup> Yr	3 <sup>rd</sup> Yr	TOTAL

**Justification for consumable materials giving estimated requirement of consumable for each prototype.**

**12. E BUDGET FOR TRAVEL :**

Please provide estimated number of visits related to the project work and cost per visit along with justification.

**13. BIODATA OF INVESTIGATORS :**

- a) Name
- b) Date of Birth
- c) Academic qualifications
- d) Areas of expertise
- e) Experience

Sr. No.	Position held (Designation)	Place of work	Duration	Areas of work

- f) Awards received , if any
- g) Publications (Nos.)
  - Books
  - Research papers
  - Patents

- h) List of publications (Paper published during last 10 years)
- i) List of project completed indicating briefly title, sponsoring agency, duration and outcome of project.

**14 Research projects currently with the investigator (s):**

Please give the following details for each project:-

- Project Title
- Duration
- Date of commencement
- Status
- Cost
- Funding agency

**Revised guidelines on emoluments and other conditions of service for research personnel and benefits to Host Institutions in R&D programmes of the Central Government Departments/ Agencies.**

Attention is invited to the O.M. No.SP/S9/2-23/97 dated 24.2.98, issued by the Department of Science & Technology, Government of India, on the above subject. The matter has been further considered by the Government and the following revised guidelines have been approved. These revised guidelines are applicable to the research personnel working on R&D programmes funded by the Central Government Departments / Agencies.

**Emoluments**

**i). Junior Research Fellow (JRF)/ Senior Research Fellows (SRF)**

		JRF 1 <sup>st</sup> and 2 <sup>nd</sup> Year	JRF (subsequent years/ SRF)
A	Graduate degree in engineering disciplines & post-graduate degree in science disciplines	Rs.12,000/- (existing Rs.8,000/-)	Rs.14,000/- (Existing Rs.9,000/-)
B	In medical and engineering subjects MBBS/BDS/MVSc/M. Pharma, ME, M.Tech, and BE/B.Tech, BVSc, B.Pharma or equivalent with 2 years experience	Rs.14,000/- (existing Rs.9,500/-)	Rs.15,000/- (existing Rs.10,000/-)

The local institution should review after two years whether JRF/SRF should continue for the third year. Similarly, at the end of the third year the local institution should review his case whether extension for another year should be given.

The Guidelines for selection of JRF/SRF will be done as per DST Office Memorandum No.12(1)/76-GRS dated 30<sup>th</sup> July, 1990. In programmes where there is a need to engage research personnel at a level higher than JRF/SRF and such need has been accepted by the funding agency, the remuneration for such personnel may be fixed as indicated below.

**Research Associates**

Research associates may be fixed at a consolidated amount at one of the 3 pay levels given below, depending upon the qualifications and experience. The Institute / Organization concerned may decide the level in which a particular associate should be placed.

**Essential Qualifications (EQ)**

In Science, Medical and Engineering subjects (PhD/MD/MDS and MVSc/ Mpharm/ME/MTEch with 3 years research / teaching / Design and development experience.

### Category

Sr. No.		Existing	Revised Pay
1.	RA – I	11,000	16,000
2.	RA – II	11,500	17,000
3.	RA – III	12,000	18,000

iii. Research Scientists : The existing scales as under will continue:

Sr. No.	Scales
1.	8000-275-13500
2.	10000-325-15200
3.	12000-375-16500
4.	Other scales below Rs.8000-13500 as recommended by the 5 <sup>th</sup> Pay Commission and approved by the Central Government

### Service Conditions :

1. DA and CCA : JRF's, SRFs and Research Associates will not be entitled to these allowances. The Research Scientists will get D.A. as per rates of Central Government and CCA as per rules of the local institutions where they are working.
2. **House Rent Allowance and Medical Benefits :** As at present, HRA and Medical benefits may be allowed to all categories viz, JRF/SRF, Research Associates and Research Scientists as per rules of the institutions where they are working. For this purpose, the fellowship amounts, for JRF/SRF and Research Associates will be taken as Basic Pay.
3. **Leave and other service benefits :** The existing policy is to continue. Under this, JRF/SRF are eligible only for casual leave while Research Associates / Scientists are entitled to leave as per rules of the institutions. However, participation by any of these categories in any scientific event in India or abroad will be treated as on duty. Maternity leaves as per Govt. of India Instructions would be available to all categories.
4. **Bonus & L.T.C :** Not admissible to any category :
5. **Retirement Benefits :** These will not be applicable to JRFs/SRFs/ Research Associate. Research Scientists who are appointed for the duration of the

project in regular scales of pay as mentioned above may be allowed to be members of the Contributory Provident Fund of the institution.

- 6. Encouragement for pursuing higher degree :** Students, selected as JRF/SRF may be encouraged to register for higher degrees and the tuition fees to undertake this may be reimbursed to the student from the contingency grant sanctioned under the project grant.
- 7. Benefits to Host Institutes :** Towards meeting their costs for overhead expenses including infrastructural facilities, an amount of :
  - i. 20% of the total project cost with an upper limit of Rs.5.0 lakh for educational institutions and Rs.3 lakh for laboratories and institutes under S&T agencies/departments, will be provided as a part of the project, and
  - ii. On projects costing more than Rs.50 lakhs, the quantum will be decided on a case to case basis.
- 8. Date of Effects :** The revision in emoluments under these orders will be applicable w.e.f 06.08.2007 for all categories of JRF/SRF and Research Associates. In the case of Research Scientist, the existing scales will continue, till further orders.
- 9.** Central Government Departments / Agencies are requested to ensure that the above guidelines are followed in regard to the remuneration and other benefits to the research personnel engaged in R&D projects funded by them. They are also requested to circulate these orders to their attached and subordinate officers and also to the autonomous institutes funded by them.
- 10.** They above may be used as guidelines by CSIR etc.