

# **Sponsored Research (RESPOND)** **Manual**

**May 2016**

**Sponsored Research (RESPOND) and  
Space Technology Cell (STC) Projects**  
**Liquid Propulsion Systems Centre**



## Sponsored Research (RESPOND)

### 1. Introduction

The Indian Space Research Organisation (ISRO) has evolved a programme through which financial support is provided for conducting research and development activities related to Space Science, Space Technology and Space Application to academia in India. This programme of Research Sponsored by ISRO is called RESPOND. In special cases research and development projects proposed by non-academic R & D laboratories can also be supported through this programme. The aim of RESPOND is to encourage quality research in areas of relevance to the Indian space programme.

The primary objective of the Indian Space programme is to harness the advanced research areas of space science and technology for national development and to derive the maximum benefit for the people of India. The Indian Space Programme includes the following major elements:

Demonstration of the feasibility of deriving from space science and technology- applications in space communications, long distance education, earth resources mapping/survey, meteorology and geodesy.

Development of indigenous capability for design and development of orbiting satellites for scientific research and space applications, sounding rockets and satellite launch vehicles.

RESPOND (Sponsored Research) programme started in the 1970s aims at encouraging academia to participate and contribute in various space related activities. Under RESPOND; projects are taken up by universities/academic institutions in the areas of relevance to Space Programme. Apart from this, ISRO has also set up Space Technology Cells at premiere institutions like Indian Institute of Technologies (IITs) - Bombay, Kanpur, Kharagpur & Madras; Indian Institute of Science (IISc), Bangalore and Joint Research Programme with University of Pune (UoP) to carry out research activities in the areas of space technology and applications. These STCs and JRP are guided by Joint Policy Committee's (JPC) chaired by Director/Vice Chancellor of the respective institution and with members from ISRO/DOS (Senior Scientists/Engineers) & the respective institution. Under the STC, projects are taken up by the faculty of the Institute (for more details visit: [www.csre.iitb.ac.in/isro\\_cell](http://www.csre.iitb.ac.in/isro_cell); [www.iitk.ac.in/dord/isro](http://www.iitk.ac.in/dord/isro); [www.kcstc.iitkgp.ernet.in](http://www.kcstc.iitkgp.ernet.in); [www.icandsr.iitm.ac.in/ISRO\\_IITM\\_CELL](http://www.icandsr.iitm.ac.in/ISRO_IITM_CELL); [www.unipune.ac.in/isro](http://www.unipune.ac.in/isro)); [List of projects taken up under STCs from 2008 onwards](#)

The main objectives of the RESPOND Programme is to establish strong links with academic institutions in the country to carry out research and developmental projects which are of relevance to space and derive useful outputs of such R&D to support ISRO programmes. RESPOND programme aims to enhance academic base, generate human resources and infrastructure at the academic institutes to support the space programme. The major activity of RESPOND is to provide support to research projects in wide range of topics in space technology, space science and applications areas to universities/ institutions. In addition conferences, workshops and publications, which are of relevance to space research, are also being supported.

## **2. Supported Areas of Research**

Research proposals are supported by ISRO in any area of relevance to the space programme of which the following are few examples:

**2.1 Space Science** : Physics of the ionosphere and magnetosphere; meteorology, dynamics of the atmosphere; geophysics, geology; astronomy; cosmology; astrophysics; planetary and interplanetary space physics and climatology.

**2.2 Space technology** : Rocket and satellite technology; propulsion systems design and optimization; aerodynamics and heat transfer problems related to space vehicles; guidance and control systems for launch vehicles and spacecraft; polymer chemistry, propellant technology; ultra-light-weight structure; satellite energy systems; space electronics, Space communication systems; orbital mechanics ,computer sciences and new material development.

**2.3 Space Application** : Remote sensing of the earth's resources: space communication; satellite geodesy image processing, satellite meteorology including weather forecasting, Space Education and Ecology.

Some illustrative examples of specific problems in the above-mentioned areas can be made available by ISRO from time to time by sharing the titles of the old projects - [list of projects from 2000 - March 2015](#). Proposers need not feel to be restricted in the selection of subjects, research areas etc for the proposals, but they need to demonstrate the intrinsic scientific merit. However, ISRO reserves the right to not to fund any proposal (s), if in its opinion, similar proposals are already funded or similar work is already done in ISRO.

## **3. Submission of Research Proposal**

An individual or group(s) of scientists / engineers affiliated to any academic institution/autonomous R&D institutions and/or faculty members of recognised academic institutions and universities may submit proposals. The Principal Investigator(s) should be full-time employee(s) of the concerned institution. The Head of the academic institution must forward proposals with application for research grants. Proposals from individuals not affiliated to any recognized institution will not be considered.

The proposals should preferably be submitted in the areas of Space Science, Space Technology and Space Application. There is no last date for submitting proposals. Each proposal must name a Principal investigator who is a domain expert in the area to which the proposal belongs and who is a full time employee/faculty of the institution forwarding the application. There may also be co-investigator(s) from the same/different institutions working on the project. But satisfactory completion of a project will be the responsibility of the Principal Investigator and her/his institution. Each proposal should provide the following information as:

- Detailed bio-data of all the investigators (Age also to be indicated) including publications/awards & recognition received.
- Contact details: address, email id, telephone/fax numbers of investigators and head of the institution forwarding the proposal
- Brief description of the research proposed including the objectives and the scientific/application merits of the work.
- Description of the research methodology or technique to be used for the proposed projected.
- The extent of financial support needed from ISRO for executing the work within the shortest possible time.
- A list of research projects related to the proposal undertaken or carried out through funding by other Agencies.
- Name and address of the Scientist/Engineer with whom the PI had co-ordinated.

Seven copies of the proposal on standard A4 size paper (297mmX210mm) should be prepared in the format attached to this brochure (Annexure). Please note that all the Forms - "Form-A", "Form-B", "Form-C" and the "Proposal Format needs to filled appropriately.

Five copies of the proposal, in the respective areas given below should be sent to one of the following ISRO Centers :

Space Sciences	Director Physical Research Laboratory Navarangapura, Ahmedabad 380 009. e-mail : <a href="mailto:director@prl.res.in">director@prl.res.in</a>
Atmospheric Sciences	Director National Atmospheric Research Laboratory Gadanki, PakalaMandal Pin-517 112 Andra Pradesh e-mail : <a href="mailto:jayaraman@narl.gov.in">jayaraman@narl.gov.in</a>
Rockets, launch vehicles and space technology including Avionics	Director VikramSarabai Space Centre ISRO P.O. Thrivananthapuram 695 022 e-mail : <a href="mailto:director@vssc.gov.in">director@vssc.gov.in</a>
Remote Sensing	Director National Remote Sensing Centre Department of Space, ISRO Balanagar, Hyderabad - 500 625(A.P.) INDIA. e-mail : <a href="mailto:director@nrsc.gov.in">director@nrsc.gov.in</a>
Space Applications Space communications, Remote sensing and meteorology.	Director Space Applications Centre Jodhpur Tekra Ahmedabad 380 015. e-mail : <a href="mailto:director@sac.gov.in">director@sac.gov.in</a>

Satellite Technology	Director ISRO Satellite Centre P.O. No. 1795, HAL Airport Road Vimanpura Post Bangalore 560 017 e-mail : <a href="mailto:director@isac.gov.in">director@isac.gov.in</a>
Systems studies related to tracking, telemetry, telecommand and other ground instrumentation for satellites and launch vehicles	Director SatishDhawan Space Centre, SHAR Sriharikota P.O. 524 124 Nellore District. Andhra Pradesh e-mail : <a href="mailto:director@shar.gov.in">director@shar.gov.in</a>
Propulsion	Director Liquid Propulsion System Center Valiamala P.O Thrivananthapuram 695 547 e-mail : <a href="mailto:director@lpac.gov.in">director@lpac.gov.in</a>

**Two copies of all proposals must be sent to :**

**Scientific Secretary,**

ISRO Head Quarters,  
Department of Space,  
AntarikshBhavan,  
New BEL Road,  
Bangalore 560 231

[E-mail : scientificsecretary@isro.gov.in](mailto:scientificsecretary@isro.gov.in)

Proposals will be evaluated by domain experts (internal and/or external) for its novelty, usefulness to Indian Space Programme and other Scientific/ technical merits. The proposal may call for changes based on review and the PI will have to re-submit the proposal incorporating the recommended changes. Proposers are informed about the outcome of the evaluation of their research proposals.

#### **4. Research Grants**

The institutions proposing a project for support are expected to commit the use of the existing infrastructure available with them. ISRO provides financial grants to support fellowship, materials, consumables, internal travel, testing charges, data etc. The fund for purchase of only essential minor equipments which are not available in the institution and would be useful for future projects will also be provided. There is no provision for any kind of payment to the Principal Investigator (or other staff) belonging to the Institution. The allocated funds cannot be used for travel abroad for any reasons.

**Guidelines governing the allocation of funds by ISRO are set out below. These may change from time to time.**

- Grants for the purchase of equipment may be provided for the investigation. The equipment must be of a specialized nature, required exclusively for the project and is either not available at, or cannot be spared from, parent Institution for the project. Such equipment should be useful for new projects to be taken up in future. In this category, PC/Computer means desktop computer only.
- Appointment of approved Research Fellows to support PI in the project activities can be made by the Academic/Research Institution for the approved project. The services of supporting staff like administrative personnel, support technical staff, technicians & technical Assistants, Surveyor, data entry operators etc., will have to be exclusively sourced by the academic or research institution undertaking the project and funds sanctioned under the project should not be diverted for the purpose. However, at the closure of the project, ISRO cannot assume any responsibility of providing continuity in employment either in the same or new project for the project staff. Such project staff who will have no claim whatsoever for recruitment in ISRO on any.
- The selection and appointment of the above project staff is the responsibility of the Principal Investigator as per the rules in vogue in respective / academic research institutions. These should be made according to the normal selection procedures of the university or institution submitting the research proposal. The qualification/ experience required and the salary offered shall be as per ISRO norms and the selection should have the approval of the head of the institution according to the rules followed in the respective Institution.
- The research personnel who are associated with the project may be awarded ISRO's research Fellowships according to guidelines laid down by ISRO for this purpose. Details on the award of Research personnel are given in following sections.
- Approved grant may be utilized for the following heads only:
  - Purchase of books and scientific literature, which are essential for the investigation, and are not available in the concerned academic/research Institution. Subscription for Journals are normally not permitted and expenditure towards Journals cannot be charged to project. In the event of a

particular Journal which is not available in the academic/research institution and which is very important and relevant to the investigation may be procured on single copy basis or Photostat copies only on prior approval of ISRO. Subscription to journals on a regular basis cannot be covered by these funds.

- Special consumable materials essential to the project.
  - Computer time, observatory time and other services.
  - Travel within India, in connection with the project or for attending seminars and symposia of relevance to the subject of the investigation.
  - Miscellaneous expenses (contingency) such as typing charges, stationery, postage, etc.
- All requirements of foreign exchange for the purchase of equipment and/or consumables should be clearly identified and mentioned in the budget. The Academic Institution /Research Institution shall arrange to provide the required foreign exchange to the project and ISRO will provide equivalent money in Indian Rupees.
  - No funds are available for international travel either partly or fully, for personnel connected with the project.
  - ISRO does not provide funds in the project for printing any material in connection with the project.
  - ISRO does not grant any funds for buildings and civil works for housing any equipment or personnel. However, charges for equipment installation can be provided only on specific approvals.
  - All travel in connection with the project should be approved by the Principal Investigator according to the TA/DA rules of the concerned Institution. The mode of Journey including air-travel may also be approved by him so that the implementation of the project takes place in time subject to the condition that the institution has no objection to such an arrangement and that the travel expenses are contained within the budgetary provisions for the project approved by ISRO
  - The funds will be sanctioned under different specific heads and will normally be released by ISRO once in every year. Reappropriation of funds among different approved heads is not permissible.
  - If the total grant released to an Institution is not fully spent, the unspent balance will be deducted out of the approved budget earmarked for next immediate release.
  - Any unspent grant at the end of the project will have to be returned to Pay and Accounts Officer, Department of Space, AntarikshBhavan, New BEL road, Bangalore-560 231

#### 4.1 Terms and Conditions of ISRO Research grants

1.	ISRO reserves the right to revoke in whole or in part the funds approved for a project at any time without assigning any reason.
2.	Approved funds must be utilized solely for the purpose for which they have been granted unless ISRO agrees other wise. A certificate that the funds have been so used must be produced by the grantee Institution at the end of each year of support.
3.	Acknowledgement of ISRO support must be made in all reports and publications arising out of an approved project/investigation. The Institution will take prior permission of ISRO before publishing any work based on an ISRO supported project. Such permission will not be unreasonably withheld.
4.	Two copies of all publications resulting from the research conducted with the aid of the grants should be submitted to ISRO.
5.	No investigator receiving a grant from ISRO may make commercial use of the results of the work through patents or otherwise. ISRO reserves the exclusive right to determine whether any patent shall be taken out and for which commercial use, if any, shall be made of any result of the investigations. All patents shall be in the name of ISRO and ISRO shall retain exclusive rights to commercially exploit them. The share, if any, for the royalty to the Investigator, the patent Institution and ISRO will be determined by ISRO.
6.	The Principal Investigator is required to submit two copies of yearly reports indicating the progress of the work accomplished. He is also required to submit two copies of a detailed scientific/technical report on the results of the research and development work after the completion of the project. One copy of these reports should be sent to the address to which the proposal was sent and other to the scientific Secretary, ISRO Headquarters. Annual reports should be sent to enable release of funds for the subsequent year. The reports will become the property of ISRO.
7.	ISRO may designate scientists/specialists to visit the Institution periodically, for reviewing the progress of work on an ISRO-funded project.
8.	An inventory of items purchased from ISRO funds should be sent to ISRO giving the description of the equipment, brief specifications, cost in rupees, date of purchase and name of supplier along with a purchase certificate from the Head of the Institution. All items of equipment and non -consumable items costing more than Rs. 5,000 remain the property of ISRO and ISRO reserves and right to recall, transfer or dispose them off either during the tenure or on the termination of the project.
9.	The accounts of the expenses incurred out of ISRO funds should be properly maintained and should be audited by an approved auditor. The final financial documents comprising of audited accounts statement and fund utilization certificate in duplicate, should be sent to ISRO at the end of each financial year of support. The final financial documents pertaining to the project should be sent to ISRO for every operational year of the project sufficiently in advance to enable the release of funds

	<p>for the subsequent year. It is the responsibility of the institution to submit the Fund Utilization Certificate (FUC) and Audited Accounts Statement (AAS) to Pay and Accounts Officer (PAO), Department of Space at the end of 12 months from the date of drawl of grant(s) from ISRO for Research Projects and at the end of 6 months for Conferences/ Seminars/ Workshops/ Symposium etc. It is mandatory for all institutions drawing grants from Department of Space to submit all financial documents within the stipulated period and any delay in the submission of the financial documents for all grants drawn from Department to Pay and Accounts Officer (PAO), Department of Space will result in delay in release of funds. In such situations, the PI cannot seek extension of project or modification of objectives of the project.</p>
10.	<p>The funds for the projects are released on annual basis. Further release of funds for ensuing year will be based on the technical performance of the project and utilization of the funds released for the project during the previous year. Any unspent balance shown in the reporting year, will be adjusted with the funds due for release during the next year.</p>
11.	<p>If the total amount sanctioned is not spent during the whole period of support, the remainder amount must be surrendered to the Pay and Accounts Officer, Department of Space, within one month after completion of the project.</p>
12.	<p>The Institution cannot divert the grants for a project to another institution if it is not in a position to execute or complete the assignment. In such a case the entire amount of the grant must be immediately refunded to ISRO.</p>
13.	<p>A register of assets, permanent and semi-permanent, should be maintained by the Institution and this should be available for scrutiny by ISRO staff.</p>
14.	<p>The assets acquired wholly or substantially out of an ISRO grant should not, without prior sanction, be disposed off or transferred to other agencies or utilized for purposes other than that for which the grant is sanctioned.</p>
15.	<p>The terms and conditions of ISRO research grants are subject to change from time to time, but the funding of any project till its completion will be governed by the terms and conditions existed on the date of starting of the project, unless mutually agreed to otherwise. The academic institution/PI cannot claim revision of fellowships or any of its elements from a retrospective date.</p>
16.	<p>ISRO reserves the right to transfer any approved project(s) from one institution to other institutions in the event of institution's inability to continue the project , PI leaving the institution etc.</p>

## **5. Terms and Conditions**

### **5.1 General rules:-**

- ISRO Research Fellowships, Research Associateships and Research Scientists hereinafter referred to as Fellowships/ Associateships/ Scientists are awarded for specific projects or Education/Research Schemes approved by ISRO. Change of level of Research Fellow, subsequent to the approval of the project will not be permitted.
- The recipients of these Fellowships/ Associateships /Scientists are expected to conduct research work whole time under the Principal Investigator of the ISRO sponsored project. In special cases of individual Research Fellows/Associates, the candidates could be governed by the conditions of Research work as specified by the projects/ programmes/ schemes for which the Fellowships have been offered by ISRO.
- ISRO may nominate a member in the committee(s) appointed by the institution in connection with the approved project.
- The Fellows/ Associates/ Scientists, appointed for ISRO project, shall not be transferred from one institution to another.
- The award of ISRO Fellowships/Associateships/ Scientists does not imply any assurance or guarantee by or from ISRO or any kind of employment to the beneficiaries.
- Generally the upper limit for the period of Fellowships/ Associateships/ Scientists will be the same as that of the project. However, in exceptional cases, mainly to enable the Fellow to complete all formalities required for submission of doctoral thesis, ISRO may consider extension of the fellowship purely based on the merit on case by case basis. However, such extensions cannot be claimed as right by either fellow or PI.
- Leave for a maximum period of 30 days in a year, in addition to general holidays, may be allowed to the Fellows/ Associates/ Scientists during the tenure of Fellowships/ Associateships/ Scientists by the appropriate authority in the university/institution. The general holidays, however, do not include the vacation period e.g., summer, winter and pooja vacations.
- Monthly emoluments of the Fellowships/ Associateships/ Scientists will be paid by the concerned institution by utilizing the project grant.

*Note: The scales of pay, service benefits, terms and conditions, etc for appointment are subject to revision from time to time by the Department of Space/Government of India.*

## 5.2 Research Fellowships

### Junior Research Fellow (JRF) / Senior Research Fellow (SRF)

Research Fellow	Qualification	1 <sup>st</sup> &2 <sup>nd</sup> Yr (monthly emoluments)
<b>Junior Research Fellow (JRF)</b>	(i) Post Graduate (PG) Degree in Basic Science with NET or equivalent qualification OR	25,000
	(ii) Graduate Degree in Professional Course with NET or equivalent qualification OR	25,000
	Post Graduate degree in Professional Course	25,000
<b>Senior Research Fellow (SRF)</b>	Qualification prescribed for JRF with two years of research experience	28,000

*Note: The performance of the Junior Research Fellows (JRF) shall be reviewed on completion of the two years, by an appropriate Review Committee duly constituted by the Directors of Centres/Units. Based on the recommendations of the review committee and approval of the Director of Centre/Unit, Junior Research Fellow may be awarded the position of Senior Research Fellow (SRF).*

## 5.3 Research Associates (RA):

**The fellowship for Research Associates may be fixed as a consolidated amount at any of three pay levels given below depending upon the qualification and experience.**

**Educational Qualification:** Doctorate or equivalent degree in Science/Engineering/Technology or having 3 years of research, teaching and design and development experience after ME / MTech with atleast one research paper in Science Citation Indexed (SCI) journal.

Sl. No	Category	Fellowship per month (Rs)
1.	<b>Research Associate I (RA-I)</b>	36,000
2.	<b>Research Associate II (RA-II)</b>	38,000
3.	<b>Research Associate III (RA-III)</b>	40,000

## 5.4 Research Scientists (RS):

The fellowship for Research Scientists remains unaltered

Sl. No.	Scales (as per VI CPC)
1.	(PB-3) 15600-39100 + GP of Rs5400
2.	(PB-3) 15600-39100 + GP of Rs6600
3.	(PB-3) 15600-39100 + GP of Rs7600
4.	Other scales below 15600-39100 + GP of Rs5400 as recommended by VI CPC and approved by Govt. of India

## 5.5 Other benefits/ Service conditions

**Dearness Allowance:** JRFs, SRFs and Research Associates will not be entitled to this allowance. The Research Scientists will be eligible to draw DA as per rates of Central Government as per rules of the local institutions where they are working.

**House Rent Allowance:** House Rent Allowance will be allowed to all research fellows viz. Junior Research Fellows (JRF), Senior Research Fellows (SRF), Research Associates (RA) and Research Scientists (RS), if they are not provided with hostel accommodation, as per rules of the institutions where they are working. For this purpose, the fellowship amount for JRF/SRF / Research Associates and Research Scientists will be taken as Basic Pay.

**Medical Benefits:** The JRF, SRF, Research Associates and Research Scientists will be allowed medical benefits, as per rule of the institution where they are working.

**Leave and other service benefits:** JRFs/SRFs are eligible only for casual leave while Research Associates/Scientists are eligible for leave as per rules of the Institutions. Maternity leave as per Govt. of India instructions would be available to all female JRFs/SRFs/ RAs/RSs.

Participation of JRF/SRF/ RA/RS in any scientific event in India or abroad will be treated as “on duty”. The travel entitlement for JRF/SRF/RA/RS for participation in scientific events/ workshops In India will continue to be the same as earlier i.e., IInd AC by rail.

Bonus & Leave Travel Concession: Not admissible to any category.

**Retirement Benefits:** JRFs / SRFs / Research Associates and Research Scientists will not be entitled to these benefits. However, Research Scientists who are appointed for the duration of the project may be allowed to be members of the New Pension Scheme (NPS) of the Institution.

**Encouragement for pursuing higher studies:** JRFs/SRFs may be encouraged to register for higher studies and the tuition fees to undertake these studies may be reimbursed from the contingency grant sanctioned under the project grant, if required.

**Benefits to Host Institutes:** Overhead expenses of 20% of the total project cost not exceeding Rs 3.00 lakhs may be permitted to the host institutions for meeting their costs including infrastructural facilities.

### **Obligations of JRF/ SRF/ RA:**

- a) JRF/SRF/RA/RS shall be governed by the disciplinary regulations of the host institute.
- b) The JRF/ SRF/ RA/RS must send a detailed consolidated report of the research work done during the entire period of Fellowship on completion of the tenure/ resignation at the earliest.

The periodic enhancement of Research fellowship: The Research Fellows, Research Associates and Research Scientists are not entitled for annual increment.

The revised emoluments will take effect from Oct 01, 2014 for all categories of JRF/SRF/ Research Associates.

## Proposal Format

### Application for Grant of Funds

1.	Name of the Institution with Full Address	
2.	Title of the Research Proposal	
3.	Name of the Principal Investigator (Address/Phone/E-mail)	
4.	Name(s) of other investigator(s) with the name(s) of their Institution	
5.	Proposed duration of Research Project	
6.	Amount of grant requested (in Rs.) 1 <sup>st</sup> Year, 2 <sup>nd</sup> Year, 3 <sup>rd</sup> Year Total	
	Manpower	
	Equipment	
	Satellite Data/Data	
	Consumables & Supplies	
	Internal Travel	
	Contingency	
	Others	
	Overheads	
	Total	
7.	a) Bio-data of all the Investigators (Format-A). b) Brief description of the Research Proposal with details of budget (Format-B). c) Declaration (Format-C).	
8.	I/We have carefully read the terms and conditions for ISRO Research Grants and agree to abide by them. It is certified that if the research proposal is approved for financial support by ISRO, all basic facilities including administrative support available at our Institution and needed to execute the project will be extended to the Principal Investigator and other Investigators.	

Name	Institution	Designation
Principal Investigator		
Co-Investigator(s)		
Head of the Department/Area		
Head of the Institution		

**Bio-data of the Investigator(s)**(Bio-data for **all the investigators** should be given, each on a separate sheet)

1.	Name																					
2.	Date of Birth (dd/mm/yyyy)																					
3.	Designation																					
4.	Degrees conferred (begin with Bachelor's degree)																					
	<table border="1"> <thead> <tr> <th>Degree</th> <th>Institution conferring the degree</th> <th>Field(s)</th> <th>Year</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>		Degree	Institution conferring the degree	Field(s)	Year																
Degree	Institution conferring the degree	Field(s)	Year																			
5.	Research/training experience (in chronological order)																					
	<table border="1"> <thead> <tr> <th>Duration</th> <th>Institution</th> <th>Name of work done</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> </tr> </tbody> </table>		Duration	Institution	Name of work done																	
Duration	Institution	Name of work done																				
6.	Major scientific fields of Interest																					
7.	List of publications																					
8.	Email id and Telephone number of PI <b>with STD Code</b>																					
9.	Email id of the Head of the academic institution																					

## Proposal Format

1.	Title of the research proposal	
2.	<b>Summary of the proposed research</b> A Simple concise statement about the investigation, its conduct and the anticipated results in no more than 200 words	
3.	<b>Objectives</b> A brief definition of the objectives and their scientific, technical and techno-economic importance.	
4.	<b>Major Scientific fields of Interest</b> A brief history and basis for the proposal and a demonstration of the need for such an investigation preferably with reference to the possible application of the results to ISRO's activities. A reference should also be made to the latest work being carried out in the field and the present state-of-art of the subject.	
5.	<b>Linkages to Space Programme/Deliverables to ISRO on successful completion of the project</b>	
6.	<b>Approach</b> A clear description of the concepts to be used in the investigation should be given. Details of the method and procedures for carrying out the investigation with necessary instrumentation and expected time schedules should be included. All supporting studies necessary for the investigation should be identified. The necessary information of any collaborative arrangement, if existing with other investigators for such studies, should be furnished. The principal Investigator is expected to have worked out his collaborative arrangement himself. For the development of balloon, rocket and satellite-borne payloads it will be necessary to provide relevant details of their design. ISRO should also be informed whether the Institution has adequate facilities for such payload development or will be dependent on ISRO or some other Institution for this purpose.	
7.	<b>Data base and analysis</b> A brief description of the data base and analysis plan should be included. If any assistance is required from ISRO for data analysis purposes, it should be indicated clearly.	
8.	<b>Available Institutional facilities</b> Facilities such as equipments, etc, available at the parent Institution for the proposed investigation should be listed.	

9.	<b>Fund Requirement</b> Detailed year wise break-up for the Project budget should be given as follows:			
	<b>Fellowships*</b>	<b>1<sup>st</sup> Yr</b>	<b>2<sup>nd</sup> Yr</b>	<b>3<sup>rd</sup> Yr</b>
	Research Scientist			
	Research Associate			
	Research Fellows			
	<b>Total</b>			
	*Note: please specify the designation, qualification and rate of salary per month for each category			
		<b>1<sup>st</sup> Yr</b>	<b>2<sup>nd</sup> Yr</b>	<b>3<sup>rd</sup> Yr</b>
	<b>Total</b>			
	Equipment**			
	<b>Total</b>			
	Please specify the various individual items of equipment and indicate foreign exchange requirement, if any			
		<b>1<sup>st</sup> Yr</b>	<b>2<sup>nd</sup> Yr</b>	<b>3<sup>rd</sup> Yr</b>
	Satellite data/data			
	<b>Total</b>			
		<b>1<sup>st</sup> Yr</b>	<b>2<sup>nd</sup> Yr</b>	<b>3<sup>rd</sup> Yr</b>
	Consumables & Supplies			
	<b>Total</b>			
		<b>1<sup>st</sup> Yr</b>	<b>2<sup>nd</sup> Yr</b>	<b>3<sup>rd</sup> Yr</b>
	Internal Travel			
	<b>Total</b>			
		<b>1<sup>st</sup> Yr</b>	<b>2<sup>nd</sup> Yr</b>	<b>3<sup>rd</sup> Yr</b>
	Contingencies			
	<b>Total</b>			
		<b>1<sup>st</sup> Yr</b>	<b>2<sup>nd</sup> Yr</b>	<b>3<sup>rd</sup> Yr</b>
	Others			
	<b>Total</b>			
		<b>1<sup>st</sup> Yr</b>	<b>2<sup>nd</sup> Yr</b>	<b>3<sup>rd</sup> Yr</b>
	Overheads(Overhead Expenses of 20% of Total Project Cost not exceeding 3.00 lakhs )			
	<b>Total</b>			
10.	Whether the same or similar proposal has been submitted to other funding agencies of Government of India. If Yes please provide details of the institution & status of the proposal.		Yes/No	

\*\*Justify each equipment. If computer is proposed, only desktop has to be purchased not laptop

**Declaration**

I / We hereby agree to abide by the rules and regulations of ISRO research grants and accept to be governed by all the terms and conditions laid down for this purpose.

I / We certify that I / We have not received any grant-in-aid for the same purpose from any other Department of the Central Government / State Government / Public Sector Enterprise during the period to which the grant relates.

	<b>Signature &amp; Name</b>	<b>Designation</b>
Principal Investigator		
Head of the Department / Area		
Head of the Institution		

**ISRO HEADQUARTERS  
RESPOND PROGRAMME OFFICE  
FORM OF FUND UTILISATION CERTIFICATE  
(PROJECTS/SCHEMES)**

Name of the Nodal  
Institution / Department  
of Organisation

Name of the Project /  
Scheme

Certified that out of Rs..... of Grant-in-aid sanctioned during the financial year ..... in favour of ..... On the subject project for the ..... (first / second/third year by Government of India, Department of Space, Bangalore as per Sanction Order No..... Date ..... and Rs. .... Unspent balance of the previous year a sum of Rs. .... has been utilized during the current financial year .....On the Project /Scheme and the balance amount of Rs..... remaining unutilised as the end of the year will be adjusted towards the grant-in-aid payable for the next year ..... The unspent balance in any on completion of the project will be/was surrendered to Pay and Accounts Officer, Department of Space, Bangalore duly supported by consolidated Audited statement of account, reports, papers, compendium of data analysis etc. (Cheque/DD No..... Date.....)

Project Investigator  
Co-Investigator

Head of Institution  
(with seal)

Registrar Finance Officer  
(with seal)

Auditor  
(with seal)

## FORMAT FOR SUBMITTING FINAL REPORT ON RESPOND PROJECTS

### A GENERAL INFORMATION

1. Title of the Project
2. Principal investigator(s) with address(es)
3. Other Investigator(s) with address(es)
4. Period of the Project (with Starting date and Completion date)
5. Total grant approved/released by ISRO
6. Total amount spent during the period of the project
7. Name and address of the University/Institution
8. Name of the ISRO/DOS Centre involved
9. Names and present addresses of Research Fellows who worked in the Project
10. Names and present addresses of Research Associates/other research Staff recruited for the project
11. Names of Research staff (in 8 & 9 above) who have completed(ing) Ph.D under the project
12. Abstract of the Report (in about 200 words)

**B. SCIENTIFIC/TECHNICAL INFORMATION:**

1. Summary of the work carried out in about 500 words
2. Introduction – Background and Objectives
3. Instrumentation – Development of equipment/hardware
4. Techniques and methods employed for the investigation/study including details of development of the software
5. Method of Analysis/Methodology
6. Results
7. Discussions & Interpretation of the results
8. Deliverables & linkages to ISRO/DOS
9. Conclusions
10. Future Plans
11. References
12. List of Publications
13. Acknowledgement

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NB: The total length of the report could normally be about 100-150 pages. This could vary depending upon the project

**ELECTRONIC TRANSFER MANDATE FORM**

**(This mandate form is to be filled in and submitted with each proposal for Grant)**

1. Institution/Organization/Society's Name & Address :
2. Organizer, Secretary or Treasurer's
  - i) e-mail ID (For mail alert) :
  - ii) Mobile No. (For SMS alert) :
3. Particulars of Bank Account of the Institution/Organization/Society :
  - A. Bank Name & Branch :
  - B. Account Number as appearing on the Cheque Book :
  - C. Account type (S.B. Account /Current Account or Cash Credit) :
  - D. 9-digit code of the Bank and Branch Appearing On the MICR cheque issued by the bank :
  - E. IFSC Code :

I/We, hereby declare that the particulars given above are correct and complete. If the transaction is delayed for reasons of incomplete or incorrect information, I/We will not held the user institution responsible.

Date : Signature of the Organizer/  
Secretary or Treasurer of  
the Organising Committee

**CERTIFICATE OF THE PAYEE/GRANTEE'S BANK**

Certified that the particulars furnished above are correct as per our records.

Bank's Stamp

Date:

Name & Signature of the  
Authorized official from the Bank  
Tele / Mob. No. :

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To,  
Pay & Accounts Officer,  
Dept. of Space,  
Antariksh Bhavan,  
Bangalore – 560 231.  
Tele : 080-2217 2253

**ISRO HEADQUARTERS  
RESPOND PROGRAMME OFFICE  
GRANT – IN – AID BILL**

Sanction letter No. and Date	
Name of the RESPOND Project/Scheme	
Name & Address of the PI	
Amount in Rupees	
Grant for the above Project during	
Amount of Grant in words	
<p>Certified that no grants have been received either from Government or Private bodies for the same purpose.</p> <p>Place: <span style="float: right;">Signature of the PI(With Seal)</span></p> <p>Date:</p>	

**Contact Address**

<b>Scientific Secretary, ISRO</b> Indian Space Research Organisation HQ, Department of Space, Government of India AntarikshBhavan, New BEL Road, Bangalore 560 231 E-mail: <a href="mailto:scientificsecretary@isro.gov.in">scientificsecretary@isro.gov.in</a>	<b>Director, RESPOND</b> Indian Space Research Organisation HQ, Department of Space, Government of India, Antariksh Bhavan, New BEL Road, Bangalore 560 231 E-mail: <a href="mailto:director-respond@isro.gov.in">director-respond@isro.gov.in</a>
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