Scheme for Young Scientists and Technologists

Application Format



GOVERNMENT OF INDIA
DEPARTMENT OF SCIENCE AND TECHNOLOGY
MINISTRY OF SCIENCE AND TECHNOLOGY
TECHNOLOGY BHAVAN, NEW MEHRAULI ROAD
NEW DELHI-110016

FORMAT-1

Segment A (Personal Information)

 Name of the Principal Investigat
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- 2. Address of the Host/Parent Institute:
- 3. Date of Birth:
- 4. Sex:
- 5. Category (Please tick appropriately): SC/ST/PH/OBC/General:
- 6. Telephone No.:
- 7. Mobile No.:
- 8. E.mail Address:
- 9. Present Position:
- 10. Please tick the area of application:

Artificial Intelligence and IoT for Societal Application in

Agriculture	
Rural Development	
Disaster Management	
• Health	
Hybrid Solar PV Technologies with Wind Generators	
Robotics for Societal Application	
Agricultural Tools and Agriculture Produce	
Nutritional Supplements and Value Added Food Products for Human and Animals	
Plant Based Health Products	
Scientific Validation and Upscaling of Traditional Knowledge Systems	
Cost Effective Health and Hygiene Aids	
Effective Indigenous Methods of Disease Identifications and Monitoring	
Natural Resource Based Livelihood Systems	
Income Augmenting Agricultural Practices	
Captive Cultivation & Breeding	
Environment Sustainability	
Additive Manufacturing	

11. Qualification:

S.	Degree	Institute/University	Year of	Subject	Percentage
No			Graduating		
1.	Graduation				
2.	Post-Graduation				
3.	PhD				
4.	Any Other				

- 12. Professional Achievements Briefly:
- 13. Are you Applying for Any Position/Fellowship:
- 14. Publications:

Segment B: General Information 1. Project Title (should be focused not exceeding 15 words):

2. i. Na	me of	PI:					
ii. N	ame of	f Co-PI:					
iii.N	ame of	f Mentor:					
3. Name	e of Or	ganization & Add	ress:				
	Acade Resea S&T (organization: emic institution: arch organization: Council: (please specify):					
5.	sancti	se of Voluntary oned by DST or by 5 years)? If yes, p	y other central	/state govt. deptt.	or from foreig	n funding ag	
	SN	Title of the project	File No.	Name of Division and funding agency (DST/DBT)	completion/ status	Amount (Rs lakh)	Whether fina UC/SE & project completion report has beer submitted (if yes, mention date)
6. a. Wł	nether,	your organization	is receiving s	upport from SEE	D, DST? *Yes/	/No*	
	roject s	ndicate whether act support provided to				nder the appr	oved activities of
	i. ii.						
	iii	i.					

	ther project activities require any clearance from relevant authorities in respect of any onmental/legal/ethical issues? Yes/No
8. Durati	on (months):
9. Cost (Rs. in Lakhs): Recurring; Non-recurring
10.	Whether the organization has been registered under PFMS? Yes/No
(Please provide the unique identification code under PFMS: (i) UNIQUE Identification Code Under DARPAN Portal of Niti Aayog (For Voluntary Organization): (ii) Name of Account Holder: (iii) Name of the Bank: (iv) Saving Account No. Only: (v) IFSC Code: (vi) MICR Code: ***********************************

Segment C- Technical Details

- 1. **Title** (Short & Focused not exceeding 15 words):
- 2. I. **Statement of the problem** (200 words)
 - i. State the main problem you seek to address:
 - ii. Who has this problem, where does it occur?
 - iii. How did you come to know of this, did the people who have problem approach you or you visualized it yourself?
 - iv. Why is it important to solve it?
 - II. **Technology gaps & Suggested solution** (150 words):

(Describe how the proposal will lead to a novel and effective solution, **based on a scientifically and technically sound concept** and keeping in view the user needs and local availability of resources)

- i. Outline your idea or solution you plan to develop:
- ii Did you think up the technological solution within your team or was it thought up in consultation with others (who):
- 3. **Review of Status** (100 words): Are you aware of any other initiative related to proposed activities to solve this problem? What were the outcomes?
- 4. **References**:
- 5. **Proposed Objectives** (Only 4-5 focused that can be observed, measured or clearly assessable):

i.	
ii.	
iii.	

5. **Methodology** (100 words):

(Describe how the project will address the societal challenges in a sustainable way. Also explain how, and in what way, the project will contribute to the advancement of knowledge in the subject/topic. Support with defined steps/relevant process details, e.g. flow chart, model, survey procedures, protocols, engineering design/schematic/layout plan - as applicable to achieve the stated objectives)

- 6. Work Plan (150 words Please also provide activities schedule Pert Diagram):
 - i. Phase wise work plan of action with time line and deliverables in tabular form (Describe how the proposal includes a plan for pilot application or trial in a realistic user environment of the technology/product, where the expected impacts to meet end user needs may be demonstrated to the fullest feasible extent).
 - ii. **Technology Selection** (State the criteria used for selection of technology for addressing problem(s) and the assessment of available technologies related to the project)

iii. Technology Development/Adoption/Modification-

as applicable (Provide information on the new R&D/adapted R & D to be carried out for technology development/adoption/ modification and brief description of the technology or training package(s) to be used. Information should be provided on the scale of operation, minimum economic viable scale, estimated cost and likely benefits of the proposed technological intervention):

iv. Institutions/places where detailed lab/field testing or experiments will be carried out:

v. Source of Technology:

	Name of Agency/Institution/Individual
Source	Expert
Generated in-house by staff	
Generated in-house by employing outside experts	
Borrowed from an outside institution/expert	
Modification of technology/know-how being	
used by the beneficiaries	
Any other (please specify):	

vi. Mechanisms for Beneficiaries mobilization & Involvement:

(Please indicate how mobilization & participation of beneficiaries in the project work will be ensured)

Formation of new SHGs/technology user group or beneficiaries' group for project implementation Involvement of existing SHGs
Through demonstration of usefulness of technology or training package
Involvement of beneficiaries through formation of enterprises Provision

of certificates for participation/proficiency for beneficiaries Involvement

of the beneficiaries as trainers and/or trainees

Financial contribution by beneficiaries in project execution

Material contribution (tools/raw material, labour, etc.) by beneficiaries in project execution

handholding through local panchayats/welfare organizations

Any others (please specify):_____

7. Environmental, Legal and Ethical Issues:

(Explain any environmental, legal and ethical compliance issues. Please mention how these will be addressed & enclose clearance certificate from concerned authorities if required)

8. **Deliverables** (the list below must correspond with and be derived from # 4, # 5 & # 6. Please also indicate affordability of deliverables to the target beneficiaries):

Deliverable	Mark √	Brief description
Product development/adaptation		
Process development/adaptation		
Technology package for development of the		
project area		
Technology capability development, training &		
documentation (e.g. reports, papers, articles,		
technology manuals, patents)		
Scientific knowledge and/or data generation		
leading to technology development in future		
Other (Please specify)		

9. **Estimated Benefits** (100 words):

Benefit	Mark √	Brief description
Economic (Cost-benefit		
analysis)		
Employment generation		
Social		
Environmental including		
potential for CDM benefits		
Others (Please specify)		

Note: Please also comments on the possible benefit sharing mechanism of project outcome by different stakeholders.

- 10. Self- sustainability of the project after SEED's project support is over (30 words):
- 11. Possibility of replication of project in similar areas (after the proposed technological solution is proven, how it will be distributed? Involving state govt. for large scale technology dissemination or via market or any other means any entrepreneur or business person involved in the work in any manner?):
- 12. Suggest measurable indicators (10-12 tangible as well as non-tangible along with means of verification) for monitoring effectiveness of project interventions in respect to the stated objectives and deliverables. The indices you choose must permit objective measurement and determination *visà-vis* time line during project cycle comparing with base line data/control-list in the table is only indicative:

S. No.	Indicators (as applicable)
1	Increase in crop production
2	Increase in land productivity
3	Change in land use pattern
4	Increase in irrigated area and/or drinking water coverage
5	Increase in family income
6	Increased availability of resources (natural and/or physical) and assets
7	No. of beneficiaries using facilities created under the project
8	Increase in livelihood/ employment opportunities
9	Diversification of livelihood activities with description
10	Improved linkages with banking/ financing institutions
11	Improved linkages with Distt. authorities/State Govt/ PRIs
12	No. of SHGs/technology user groups/cooperatives and/or enterprises formed
13	Improved linkages with market/ enterprises
14	Improved health of beneficiaries/ sanitation/ Less drudgery in work
15	Improved access to energy sources
16	No. of skilled/non skilled workers trained
17	No. of new technologies/products/processes/ services developed/adapted
18	Adoption of newly developed product indicated by number of adopters
19	No. of organizations motivated and mobilized for replication of project achievements
20	No. of publications produced (Title, Journal, issue, yr.)

Segment D: Budget Details

BUDGET ESTIMATES: SUMMARY

(Rs. in lakhs)

Sl.No.	Item	Budget			
		1 st Yr	2 nd Yr	3 rd Yr	Total
A	Recurring				
	1. Manpower				
	2. Consumables				
	3. Travel				
	4. Demo/Training programmes (if				
	applicable)				
	5. Contingencies/Other costs				
	6. Institutional Overheads*				
В	Non-Recurring				
	Permanent equipment				
	Construction of work shed/structures				
	Fabrication of prototype equipment				
	Grand Total (A+B)				

- 2. Financial Year : April to March
- 3. It is essential to provide brief & adequate justification for each item of expenditure.

A. Recurring:

1. BUDGET FOR MANPOWER

S.No.	Designation	No.	Qualification	Monthly	Budget (Rs. in lakhs)			
			&	emolument				
			experience	(Rs)				
					1 st Yr	2 nd Yr	3 rd Yr	Total

2. BUDGET FOR CONSUMABLES*

S.No.	Description of consumable	Qty./Yr	Budget (Rs. in lakhs)			
			1 st Yr	2 nd Yr	3 rd Yr	Total

^{*} Includes items like chemicals, glasswares, supplies, seed, pesticides, fertilizers, raw materials for fabrication, stationery, etc.

3. BUDGET FOR TRAVEL

S.No.	Purpose	I	Budget (Rs.	in lakhs)	
		1 st Yr	2 nd Yr	3 rd Yr	Total
1	Project logistics				
2	Field activities				
3	DST review meetings				

- i. International travel is not permitted from travel budget.
- ii. The project personnel shall exercise utmost austerity while traveling.
- iii. Please provide detailed justification for budget proposed under first two headings.

4. FIELD TESTING/DEMO/TRAININGS*

S.No.	Description of field testing/demos/trainings	No/Yr	Budget (Rs. in lakhs)			
	testing, demos , trumings		1 st Yr	2 nd Yr	3 rd Yr	Total

^{*} Include material for technology field testing/demo, training manuals, training expenses for beneficiaries. **Note:** For training give details about the subject of training(s), no. of beneficiaries/training, duration of training days, cost /training).

5. BUDGET FOR CONTINGENCIES*

S.No.	Item	Qty./Yr	Budget (Rs. in lakhs)			
			1 st Yr	2 nd Yr	3 ^{ra} Yr	Total

^{*} Includes items like computer time, secretarial assistance, documentation, cost of technology transfers/acquisitions (intellectual fees), lab/field trials, maintenance/servicing of equipment, incidental expenses, etc.

B. Non-Recurring:

BUDGET FOR PERMANENT EQUIPMENT/WORKSHED/STRUCTURES

S.No.	Equipment/Item details	Qty	Budget (Rs. in lakhs)
1			·
2			
3			
4			

- i. Include installation charges, transport, taxes/duties/levies, etc. Please try to avail tax/duty exemptions as applicable to your institution/organization.
- ii. Budgetary quotations will be required for permanent equipment (estimates, if the equipment is to be fabricated locally for prototype testing etc) and other items under non-recurring head, once project is approved for financial support.
- iii. Drawings/layouts, etc. prepared by authorized professionals/agencies should be submitted for proposed work shed/structures, if applicable, and supported by documents showing availability of required land along with consent letter from the owner (Panchayat/individual/Govt./etc.).
- iv. Proper record should be maintained for the items procured under this Head.

Annexure-I

ENDORSEMENT FROM THE HEAD OF INSTITUTION (TO BE GIVEN ON LETTER HEAD)

PROJ.	ECT TTTLE:
1.	Certified that the Institute welcomes participation of Dr./Shri/Smt./Km as the Principal Investigator, Dr./Shri/Smt./Km as the Co-Investigator
	and Dr./Shri/Smt./Km as Mentor for the project and that in the unforeseen event of discontinuance by the Principal Investigator, the Co-Investigator will assume the responsibility for the fruitful completion of the project (after obtaining consent in advance from DST).
2.	Certified that the equipment, other basic facilities and such other administrative facilities as per terms and conditions of the grant, will be extended to investigator (s) throughout the duration of the project.
3.	Institute assures financial and other managerial responsibilities of the project.
4.	Certified that the organization has never been blacklisted by any department of the State Government or Central Government.
Name	and Signature of Head of Institution
Date:	
Place:	
REMA	ARKS

In regard to research proposals emanating from scientific institutions/laboratories under various scientific departments the Head of the Institution is required to provide a justification indicating clearly whether the research proposals falls in line with the normal research activities of the institution or not and if not, the scientific reasons which merit its consideration by DST.

Annexure-II

CERTIFICATE FROM THE INVESTIGATOR

PRO	JECT T 	TTLE:							
1.	We a	We agree to abide by the terms and conditions of the DST grant.							
2.	We d	lid not submit this	or a similar project pro	pposal elsewhere for financial support.					
3.	as an	We have explored and ensured that equipment and basic facilities will actually be available as and when required for the purpose of the project. We shall not request financial support under this project, for procurement of these items.							
4.	We undertake that spare time on permanent equipment will be made available to other users								
5.	We h	We have enclosed the following materials:							
	ITEMS			NUMBER OF COPIES					
	(a)	Endorsement for the Institution (rom the Head of (on letter head)	One					
	(b)	Copies of the F	Proposals	3					
	(c)	of Association, the Institution, and Annual Re	ertificate, Memorandum Rules and Regulations Audited Balance Sheet port of previous three y untary Organization).	of					
Nam	e & Sig	gnature of PI	Name & Signature of	Co-PI Name & Signature of Mentor					

Annexure-III

PROFORMA FOR BIODATA OF INVESTIGATORS (P.I. & CO-I.)

Sl. No.	. Title of the project	Name	of O	rganizati	ion Status
(2))List of projects submitted				
Sl. No.	. Title of Project	Duration From to	To	tal Cost	Funding Agency
H. (1)	List of completed and on g	oing projects			
		arch Papers, reports (please specify			General articles
G.	Publication (Numbers only)				
F.	Award/Prize/Certificate etc.	won by the inve	stiga	tor:	
	Professional career:				
	Academic career (From Gra of specialization – Enclose of	•	-		level indicating subject and area alification):
E.	Academic and professional	career:			
C.	Institution Address with e mail ID and Mobile No		D.	Whether	belongs to SC/ST
A.	Name		B.	Date of	Birth