WTI call 2019

Call for Research Proposals under Water Technology Initiative-Research, Technology and Innovation on Nexus of water with Energy, Food, Health.

1. Preamble:

Water Technology Initiative is a demand oriented user centric initiative which includes development research in laboratories as well as application research in field. The scope of initiative covers the entire value chain of R&D right from water oriented applied research, pre competitive technology development, technology based classification & assessment of technology options, pilot-demonstration of technology leads from laboratories and academic institutions to evolve a basket of technology options and mounting of technically, socially, environmentally and eventually affordable convergent solutions suited to socio-economic context. Based on stakeholdersø consultation, it is being inferred that there is a need to promote research for cross sectoral interface in the water domain. This is necessary to enhance access to water supply and services and reduce disparities among different sections and regions which calls for a multi-goal optimisation process accounting for sectoral integration of water-food-energy with health-education-equity.

2. Objective of Call:

The objective of the call is to mobilize study, research, innovation and technology proposals to explore, understand and address nexus of water issues with the sectors e.g. energy, food, health, infrastructure etc. in the context of existing and emerging water challenges in the country especially with reference to reliable availability of water for drinking, municipal, and agricultural requirements. The scope of this call

will not include sensing and treatment of industrial waste water and water use efficiency in industrial sector. The present call would support thematic lab based Research Development and Demonstration (RD&D) on Water quality sensing, analysis, treatment and management for addressing issues related to Water-food, Water-Energy, Water-Health, Water-Energy-Food-Health and other cross sectoral Nexus. The topics could include:

- I. Treatment and management of Water quality for Public Health, water related disasters, cleaning the rivers etc.
- II. System optimization of water supply &treatment systems for optimal water & energy use.
- III. New Sensor technologies and intelligent sensor products for real time measurement of water quality and quantity in energy operations.
- IV. Sustainable options for water quality such as in-situ remediation.
- V. Study of transport and fate of Emerging Contaminants, PPCP and Pesticides.
- VI. Sustainable water harvesting, recharge and porous cities (usability, health impacts, efficiency & safe use etc.)
- VII. Sustainable Desalination Technologies.
- VIII. Optimizing water quality and quantity for different usage.
 - IX. Sustainable Integration of alternate energy source.

The above topics are only illustrative and any other topic addressing call spirit can be considered under this call. The call would include following components:

3.1 Action Research stream:

Concept:

Proposal should aim at conducting scientific study of the nexus of water issues with other sectors and the outcome should be evidence based action plan/policy recommendations etc.

Eligibility:

The proposals are to be led by faculties/ scientists working in regular position in recognized Academic Organizations / Public funded R&D Institutions/ Laboratories, Central and state government autonomous organisations state S&T councils. Interaction of water experts with other researchers in nexus area is encouraged.

Project Cost: Not exceeding ₹70 lakh (indicative) where equipment cost is not expected to exceed 30% of the project cost. Overheads are admissible as per DST norms above these costs.

Project duration: 3 years maximum

3.2 Applied Research Stream: Leading to establishment of Proof-of-Concept.

Concept:

Proposal should explore innovative ideas with a view to showcase the unique advantages of the idea over existing alternatives and to demonstrate that their innovative idea has the ability to address a significant end user need. This has to be substantiated by clear articulation of need supported by quantitative performance statement from the participating user.

Eligibility:

The proposals have to be submitted preferably in the institute - user / industry partnership. The proposals are to be led by faculties/ scientists working in regular position in recognized Academic Organizations / Public funded R&D Institutions/ Laboratories, state S&T councils in partnership with other academic/ R&D organisation,

DSIR recognized SIRO organizations, Central and state autonomous organisations, industry association, industries etc.

Project Cost: Not exceeding ₹ 70 lakh (indicative) where equipment cost is not expected to exceed 30% of the project cost.

Project duration:3 years maximum

3.3 <u>Technology Development Stream</u>: Leading to Lab Scale Demonstration.

Eligibility: The proposals have to be submitted in the <u>institute ó industry / user</u> partnership only. The proposals are to be led by faculties/ scientists working in regular position in recognized academic institutions,

public funded R&D Institution/ Laboratories, state S&T councils in partnership with other academic/ R&D organisation, state line

departments, S&T based voluntary organisation, DSIR recognized

SIRO organization etc. Participation of industries/ start-ups and

industry association is strongly recommended. The role of industry

in the proposal should be tangible and it should show interest in

promoting or encouraging the developed technology. The

company/industry has to be willing to contribute in the form of

industry attributable technical inputs and resources in kind.

Project Cost: No ceiling. Lab Scale Demonstration plant costs will be admissible

based on the project requirement. However, other equipment cost

should not exceed 30% of the project cost.

Project duration: 2 years maximum

3.4 <u>Technology Asessment Stream</u>:Leading to Pilot Scale Demonstration for technology in field setting.

Eligibility: The proposals are to be led by faculties/ scientists working in regular position in recognized academic institutions, public funded R&D Institution/ Laboratories in partnership with other academic, R&D organisations, DSIR recognized R&D organizations, industries and Users (Utility, Panchayat, Municipal Corporation).

Project cost: No ceiling. The stream also includes grants to academic/R&D institute(s), for setting up of pilot demonstration plant, provided the partnering user demonstrates willingness to validate the technology through providing tangible inputs to the project.

Project duration: 2 years maximum (18 months for installation and 6 months for assessment of technology.)

3.5 <u>Convergent Solution Stream</u>: Leading to customised sustainable convergent solution including techno-socio economic environmental assessment for mounting sustainable solution for a population of 10000 or more.

This stream envisages-

Customised convergent technological solutions to address prevalent and

emerging water challenges in selected clusters having clearly identified

water challenges amenable to technological solutions.

Techno-socio-economic environmental assessment of technology

options in clusters of credible population size (say 10,000 or more).

Also up-scaling of convergent solutions successfully demonstrated

under various research, development and demonstration programme for

a larger population (say 1,00,000 or above). For upscaling, successful

demonstration need to be proven.

Eligibility:

The proposals have to be submitted in the consortium mode only. The

consortium is expected to be led by faculties/ scientists working in regular

position in recognized academic institutions, public funded R&D Institution/

Laboratories, state S&T councils in partnership with other academic/ R&D

organisation, state line departments, S&T based voluntary organisation etc.

Participation of industries/ start-ups is also welcome, where-ever applicable.

The consortium should essentially include at least a user having interest in the

intervention, a solution designer and a solution provider. The role of solution

designer and provider can be assumed by the same organization, if the

organization has required expertise and experience.

Project cost: No ceiling.

Project duration: 3 years maximum

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4. Call Dates

Call Opening Date: 14th March, 2019

Call Closing Date: 30th June, 2019

5. Proposal Formulation:

The applicants are encouraged to identify current & emerging nexus challenges on the identified topic in consultation with stakeholders. The relevance of the research should be based on identified need. The formulation exercise would typically involve collecting site specific conditions and assessing holistic water requirement and identifying nexus issues. The strategy for sustainability of intervention post intervention also needs to be explicitly stated. The applicants are advised to indicate TRL level at the beginning and end of the project.

6. Criteria for evaluation (Not applicable for stream 3.1)

The proposals would generally be evaluated based on the following criteria. However, weightage of each of these criterions will vary depending upon the anticipated output of each stream:

- i) Demand or need of proposed work
- ii) Credibility Track Record and commitment of Project Team
- iii) Novelty, feasibility and scientific merit of proposed work
- *iv)* Superiority of proposed work over existing alternatives.(not applicable for 3.1)
- v) Proposed formulation with clear definition of problem proposal is going to solve, why it is important, clear articulation of methodology and

delineation of roles and responsibilities.

vi) Potential, Technical, social, environmental and economic viability of proposed work.

DST at the behest of Expert Panel may introduce any other criteria considered to be critical for successful implementation of the project.

7. Proposal Format and Submission:

Proposals may be submitted at e-PMS (onlinedst.gov.in) under Technology Mission Division in prescribed format of Individual Proposal which is available on e-PMS and at DST website.

Two (2) hardcopies of uploaded research proposal should also be sent to Dr. Neelima Alam, Scientist 'E', Technology Mission Division (E&W), Department of Science & Technology (DST), Technology Bhavan, New Mehrauli Road, New Delhi- 110016 by Speed Post and reach before the closing date of the call. The envelope should be super scribed with the "WTI call 2019 - Research, Technology and Innovation on Nexus of water with Energy, Food, Health:----- (Action Research stream/ Applied Research Stream/Technology Development Stream/ Technology Assessment stream/Convergent Solution Stream), Name of Principal Investigator".

COMPONENT	/ STREAM APPLIED FOR:
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(Tick the most appropriate one)	
Action Research stream :	
Research Stream:	

FORMAT FOR SUBMISSION OF PROPOSAL FOR SUPPORT UNDER WATER TECHNOLOGY INITIATIVE (WTI)

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	Core Proposal Bio-Data of PI and Co-PI Budget Undertaking from the Investigator Endorsement from The Head of Institution Endorsement from the Collaborators

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I. Proposal Summary

S.	File No.	DST/WTI/			
No.		(TO BE FILLED BY DST)			
I	Title				
II	Project cost	(Amount in lakhs)			
III	Duration	(in months)			
Ш	PI Name				
	Date of Birth				
IV	Co-PI Name				
	Date of Birth				
V	Lead Organisation				
VI	Lead Organisation Status	Govt. organisation/ Statutory body/ Registered society (NGO)/ Registered society (autonomous body)/Trust /Govt. autonomous/ Govt. aided institute/ Private sector company/others (<i>Tick Any</i>)			
VII	Collaborator				
	Organisation (C O)				
VIII	CO Status				
IX	Objectives				
Х	Methodology				
ΧI	Deliverables	New/Upgraded Product; New/Upscaled Process; New/ Upgraded System; Services (including software); Feasibility analysis; report; mention any other in bullet form			

Note: Restrict the above information to single A4 page size

File No.	DST/WTI/
	(TO BE FILLED BY DST)

Financial requirements:

(Break- up of cost)

SI no.	ITEM	Description	Individual	Total Amount
			sub-head cost	(All figure in lakhs)
1	MANPOWER			
	(mention Posts with gross emoluments)			
	(Refer Annexure –viii)			
2	PERMANENT EQUIPMENTS LIST			
	(mention cost of individual item)			
3	3 OTHER COST			
4	CONSUMABLES			
5	TRAVEL			
6	CONTINGENCIES			
7	OVERHEADS CHARGES			
	GRAND TO	OTAL		

_		
Grand	total	

DST Share:

Collaborator share (if any)	(Mention the	Item & its amount) :
Note: Kindly restrict the in	nformation to	single A 4 page size

II. CORE PROPOSAL

1. Project Title

5. Target Beneficiaries

5. Objectives of the Proposal

/	nrecise d	and auar	ntified us	e Rullet	Form)
ı	DIPLISE C	ma auar	ninea. us	se bullet	CUIIIII

7	Critical	Review	of Status	Identifying	Gans
/.	Critical	review	OI Status	identiliving	Gabs

(include references)

- 3.1 National Status Review
- 3.2 International Status Review

8. Outline of the Project (with schematics, where possible)

(Define the problems and give technical details)

9. Deliverables of the project (brief description)

- i) New/Upgraded Product
- ii) New/Upscaled Process
- iii) New/Upgraded System
- iv) Services (including software)
- v) Feasibility analysis
- vi) Any other

10. Methodology

(Please highlight how success in the project execution will be ensured)

11. Milestones with Months, Work Elements & Responsible Organisation for each Work Element

S. No.	Milestone	Target Month	Work Elements	Responsible Organisation
			1.	
			2.	
			3.	
			1.	
			2.	
			3.	
			1.	
			2.	
			3.	

12. Work Plan

(Attach bar chart giving project activities and milestones. Highlight Milestones)

13. Names of 5 Experts/Agencies/ Institution working in the similar area

(Please give complete Name, Designation, Address with pincode, telephone numbers & e-mail addresss)

14. Any other information relevant to the Project proposal/ execution of the project

III. Proforma for Bio-Data of Principal Investigator (PI) and Co-Principal Investigator (Co PI)

1. 2. 3. 4.	Name Gende E-mail Qualific	er I ID				
	S.No.	Degree	Institution	Year	Divisio	on/Class
4.	Emplo	yment Experie	ence			
4.	Emplo S.No.		ence Organisation	Nature	of Job	Period
4.				Nature	of Job	Period
4.				Nature	of Job	Period
4.				Nature	of Job	Period
 4. 5. 	S.No.	Position & C			of Job	Period
	S.No.	Position & C	Organisation For last 5 years on		of Job	Period

Patents filed/Granted with details

6.

			eu	iciibac	iapters cor	s Published /Ch	DOOK	7.
					Projects	sored Research	Spons	8.
vements	Achiev	Amount	Period	and	Agency	Sponsoring Officer Conce	Title	S. No
					<u> </u>	ultancy Project:	Consi	9.

S. No	Title	Sponsoring Agency	Period Amount		

10. Sponsored Research/Consultancy Projects submitted for approval

S.No.	Title	Agency to whom submitted	Duration	Amount

IV. BUDGET ESTIMATES

1. Break-up of Total Budget

(All Amount in Lakhs)

S.No	Item	1 st Yea	r	2 nd Ye	ar	3 rd Yea	ar	Total	
		DST	Collaborator*	DST	Collaborator*	DST	Collaborator*	DST	Collaborator*
1.	Manpower								
2.	Permanent Equipment								
3.	Other Costs (Outsourcing, Fabrication, Testing and patents etc)								
4.	Consumables								
5.	Travel								
6	Contingencies								

7	Overhead Charges				
	Total				

Grand Total (DST + Collaborator)

^{*} Give financial contributions of Each Collaborator Separately, if any.

2. Itemised	Budget				
(Please provide	justification)				
2.1. Manpower					
lget for Salaries	(To be borne by DST))			
Designation	Qualification	Salary per month	No. of Persons	Amount Rupees in Lakh	Justification
Budget for Salar	ies (To be borne by Co	ollaborator(s), if any)			
	ies (To be borne by Co	Salary per month	No. of Persons	Amount Rupees in Lakh	Justification
Budget for Salari Designation			No. of Persons	Amount Rupees in Lakh	Justification
			No. of Persons	Amount Rupees in Lakh	Justification

Budget for Permanent Equipment (To be borne by DST**)**

Description of	Foreign/Indigenous	Unit Landed Price	Nos. of Equipment	Total Rupees	Justification in relation to
Equipment		(CIF+Custom Duty+			project requirement
		others)			

Budget for Permanent Equipment (To be borne Collaborator (s), if any)

Description of Equipment	Foreign/Indigenous	Unit Landed Price (CIF+Custom Duty+ others)	Nos. of Equipment	Total Rupees	Justification in relation to project requirement

^{*} A List of equipment and facilities available to the investigators and relevant to the project may also be provided, separately.

2.3. Other Costs (Outsourcing, Fabrication, Testing and Patenting etc.**)**

Budget for Other Costs (To be borne by DST)

Item	1 st Year	2 nd Year	3 rd Year	Total	Justification including basis of cost estimates/quotations
Outsourcing					
Fabrication					
Testing					
Patenting					
Others					

Budget for Other costs (To be borne Collaborator (s), if any)

Item	1 st Year	2 nd Year	3 rd Year	Total	Justification including basis of cost estimates/quotations
Outsourcing					
Fabrication					
Testing					
Patenting					
Others					

2.4 Consumables

Budget for Consumable Materials (To be borne by DST)

1 st Year	2 nd Year	3 rd Year	Total	Justification including basis of cost estimates / quotations

Budget for Consumable Materials (To be borne by Collaborator (s), if any)

1 st Year	2 nd Year	3 rd Year	Total	Justification including basis of cost
				estimates/quotations

2.5. Domestic Travel*

Budget for Domestic Travel (To be borne by DST**)**

1 st Year	2 nd Year	3 rd Year	Total Rupees	Justification;	indicating		
				(journeys, t transport	mode and	class	of

Budget for Domestic Travel (To be borne Collaborator (s), if any)

1 st Year	2 nd Year	3 rd Year	Total Rupees	Justification; indicating
				journeys, mode and class of transport.

^(*) No foreign travel is generally not permitted under DST grants. Class and mode of transportation should be as per the entitlement of the concerned staff in the institute. Travel component of PRC visits would be added by DST separately in the project cost).

2.6 Contingencies

Budget for Contingencies (To be borne by DST)

1 st Year	2 nd Year	3 rd Year	Total	Justification including basis of cost estimates/quotations

Budget for Contingencies (To be borne Collaborator (s), if any)

,	1 st Year	2 nd Year	3 rd Year	Total	Justification including basis of cost estimates/quotations

2.7	Designation	on of the officer in organization who is vested with financials power:
	Proposal i	f approved, Payment shall be made in favour of
	i.	Bank Account No.
	ii.	IFSC Code.
	iii.	MICR Code.
	iv.	Bank Branch Address
	(This	will facilitate in fast electronic transfer of funds)
2.8	Mention	HRA % applicable to Research fellow in your institute and the classification category of your
	city/ tow	n:
	(Please en	nsure to fill all the above details otherwise it shall be considered as NIL)

V. UNDERTAKING FROM THE INVESTIGATOR(S)

Pro	ject Title:
1.	I/We have carefully read the terms and conditions of the Water Technology Initiative Programme and I/We agree to abide by them.
2.	I/We have not submitted this or a similar Project proposal elsewhere for financial support.
3.	I/We have explored and ensured that the equipment and the basic facilities described in the Research Proposal, will actually be available as and when required for the purpose of the Project. I/We shall not request financial support under this project, for procurement of these items.
4.	I/We undertake that spare or idle capacity of the permanent equipment procured under the Project will be made available to other legitimate users from parent and other organisations.
5.	I/We have enclosed the following :
	Endorsement from the Head of the Institution
а	(on letter head)
b	Undertaking from the Collaborator(s)
С	Complete Project Proposal (5 copies)
	Name and signature of the Investigators
Dat	e
Plac	

VI. ENDORSEMENT FROM THE HEAD OF THE ORGANISATION

(To be typed on the letter-head of the organization)

Project Title

1.	Certified that the organization welcomes the participation of Dr/Mr/Mrs
	as the PI and Dr/Mr/Mrsas the Co-PI for the project and
	that in the unforeseen and legitimate event of discontinuation by the PI, the
	Co-PI will assume full responsibility for completion of the project. Information
	to this effect, endorsed by me, will be promptly sent to the DST

- 2. Certified that the equipment, other basic facilities and other administrative facilities as per the terms and conditions of the award of the Project, will be extended to the investigator(s) throughout the duration of the project
- 3. The Organization shall ensure that financial and purchase procedures are followed as per the prevailing norms of the organization, within the allocated budget.
- 4. The Organisation shall provide timely the Statement of Expenditure and the Utilisation Certificate of the grant as required by the DST in the prescribed format.
- - i. Organisation Name as per Bank records:
 - ii. Bank Account No.:
 - ii. IFSC Code:
 - iii. MICR Code:
 - iv. Bank Name:
 - v. Bank Branch Address
 - vi. Unique Agency code of the Organisation and Institute:

As per the extant guidelines of Govt. of India, you are requested to register yourself on <u>Central Plan Scheme Monitoring System</u> (CPSMS) website and inform us unique agency code to facilitate the electronic fund transfer.

{website link- https://pfms.nic.in/Users/LoginDetails/Login.aspx}.

stitute)
/Stamp
(Name tions and

above. A brief profile of my organization is summarised below:

I hereby affirm that my organization/industry is committed to participate in the Project to the full extent as indicated including financial liabilities accruing therefrom as detailed

Name of Organisation	
Line of Business	
No. of employees	
Annual Turn over	
The Annual Report for the last financial year is enclosed.	
	(Head of the Organisation)
	Seal/Stamp
Date	
Place	

Annexure I

Terms & Conditions of the Grant

- Approval of the Research Proposal and the grant released for it is for the specific Project sanctioned and the released grant should be exclusively spent on the Project within the stipulated period. The Institution may use funds obtained from any other Organisation with the concurrence of DST, for the Project. Any un-spent balance out of the amount sanctioned must be surrendered to the Government of India through a crossed Cheque/ Demand Draft drawn in favour of Drawing & Disbursing Officer, DST.
- 2. For permanent, semi-permanent assets acquired solely or mainly out of the project grant, an audited record in the form of a register shall be maintained by the Institute. The term "Assets" include (a) the immovable property acquired out of the grant; and (b) movable property of capital nature where the value exceeds Rs 1000/-. The Institute is required to send to the Department of Science & Technology a list of Assets acquired from the grant. The grant shall not be utilised for construction of any building unless specific provision is made for that purpose. Full infrastructural facilities by way of accommodation, water, electricity, communication, etc. for smooth implementation of the project shall be provided by the Institute.
- 3. All the Assets acquired from the grant will be the property of the Government of India and should not be disposed off or encumbered or utilised for purposes other than those for which the grant had been sanctioned, without the prior sanction of the DST.
- 4. At the conclusion/ termination of the project, the Government of India will be free to sell or otherwise dispose off the Assets which are the property of the Government. The Institute shall render to the Government necessary facilities for arranging the sale of these assets. The Government of India has the discretion to gift the Assets to the Institutions or transfer them to any other Institution if it is considered appropriate.
- 5. The Institution/PI will furnish Six Monthly Progress Report (Annexure-V) (5 copies) of the work on the Project on half-yearly basis (i.e. if the date of start of a project is 12.09.07 the first Six Monthly Technical Progress report shall be for the period 12.09.07 to 31.03.08, the next will be from 01.04.08 to 30.09.08 and so on). In addition, the DST may designate a Scientist/ Specialist or an Expert Panel to visit the Institution periodically to review the progress of the work being carried out and to suggest suitable measures to ensure realisation of the objectives of the Project. During the implementation of the Project the Institution will provide all facilities to the visiting scientist/ specialist or the Expert Panel by way of accommodation, etc. at the time of their visit. In case of exceptional circumstances, request for extension for time period must be submitted to DST six months prior to the approved date of completion of the project (Annexure-VII). On completion of the Project, submit the final statement of Expenditure (Annexure –II) along with utilization certificate (Annexure –III) and ten copies of self contained Project Completion Report (Annexure-VI) as per DST format.
- 6. At the time of seeking further installment of the grant, The Institution/ PI has to furnish the following documents:
 - a) Statement of Expenditure (SE) (Annexure- II) and Utilisation Certificate (UC) (Annexure-III) for financial year upto 31st March (in original or copy if sent earlier)
 - b) An authenticated up-to-date Statement of Expenditure (annexure-II) including Committed Expenditure for the Project on the date of seeking further installment .

- 7. Request for specific approval of the Department to **carry forward** the unutilised grant to the next financial year for utilisation for the same Project, should be sent along with SE & UC, after completion of the financial year.
- 8. The Comptroller & Auditor General of India, at his discretion, shall have the right of access to the books and accounts of the Institution maintained in respect of the grant received from the Government of India.
- 9. The Institution will maintain separate audited accounts for the Project. If it is found expedient to keep a part or whole of the grant in a bank account earning interest, the interest thus earned should be reported to the DST and should be reflected in the Statement of Expenditure. The interest thus earned will be treated as a credit to the Institution to be adjusted towards further installment of the grant.
- 10. The Institution will not entrust the implementation of the work (except the out-sourced part as approved) for which the grant is being sanctioned to any other institution nor will it divert the grant receipts to other institutions as assistance. In case the Institution is not in a position to implement or complete the Project, it should, forthwith, refund to the DST the entire grant received by it or the balance grant with it in favour of DDO, DST.
- 11. All the personnel including Research personnel appointed under the project, for the full/ part duration of the project, are to be treated as temporary employees and will be governed by the Administrative rules/ service conditions (for leave, TA/DA etc) of the implementing Institute. They are not to be treated as employees of the Government of India and the DST will have no liability, whatsoever, for the project staff after the completion of the Project duration.
- 12.For the expeditious implementation of the research Project, the PI will take the assistance of the Institution in the process of selection and appointment of staff and payment to them. Scale and emoluments for the posts not covered under DST's OM are governed by the norms prevalent in the implementing Institution or as agreed upon in consultation with the DST
- 12. The DST reserves the right to terminate the project at any stage if it is convinced that the grant has not been properly utilised or satisfactory progress is not being made.
- 13. The Project becomes operative with effect from the date on which the Draft/ Cheque is received by the implementing Institution. This date should be intimated by the Institution authorities/ Principal Investigator to the DST. It will, in no case be later than one month after the receipt of the draft/ cheque by the Institution.
- 14. If the Principal Investigator (PI) to whom a grant for a project has been sanctioned wishes to leave the Institution where the project is based, the PI/Institution will inform the DST of the same and in consultation with the DST, evolve steps to ensure successful completion of the Project, before the PI is relieved.
- 15. The data pertaining to the project should be systematically collected, scientifically documented and submitted to DST which later would be placed in public domain. This clause would not be applicable for the projects where legal protection of the know–how generated is felt necessary.
- 16. Investigators wishing to publish technical/ scientific papers based on the research work done under the project should acknowledge the assistance received from the DST, indicating the scheme.

- Investigators are expected to publish some of the research papers emerging out of the Project work in leading Indian Journals.
- 17. If the results of research are to be legally protected, the results should not be published without securing legal protection for the research results. For projects identified to have a distinct potential for generating know-how, in the form of product/ process, that could be protected through patenting, copyrights etc., the PI should carefully follow the "Guidelines/ Instructions for Technology Transfer and Intellectual Property Rights" provided in the Guidelines for Implementing Research Projects booklet issued by the DST. [http://www.tifac.org.in] For further information/clarification on this subject- The Director, Technology Information, Forecasting and Assessment Centre (TIFAC), Patent Facilitating Cell, Vishwakarma Bhawan, Shaheed Jeet Singh Marg, New Mehrauli Road, New Delhi- 110016, E-mail: tifac@nda.vsnl.net.in, may be contacted.

Annexure - II

COST DETAILS OF PERMANENT EQUIPMENT/ ASSESTS

SI. No	Name of Equipment Asset with model Name, etc and data of procurement	Sanctioned amount Rs.	Actual Expenditure (*) FE Rs.	Other Expenses (**) If any	Utilisation Rate (%)

^(*) This should include only the cost of equipment, insurance and freight charges.

^(**) Other expenses such as bank charges agency commission etc should be avoided through appropriate negotiations. If unavoidable expenses incurred, the same may be indicated.

COMPONENT/ STREAM APPLIED FOR:

(Convergent Solution Stream):

(Technology Assessment stream):

FORMAT FOR SUBMISSION OF PROPOSAL FOR SUPPORT UNDER WATER TECHNOLOGY INITIATIVE (WTI)

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II. Proposal Summary

S.	File No.	DST/WTI/
No.		(TO BE FILLED BY DST)
I	Title	
II	Project cost	(Amount in lakhs)
III	Duration	(in months)
Ш	PI Name	
	Date of Birth	
IV	Co-PI Name	
	Date of Birth	
V	Lead Organisation	
VI	Lead Organisation Status	Govt. organisation/ Statutory body/ Registered society (NGO)/ Registered society (autonomous body)/Trust /Govt. autonomous/ Govt. aided institute/ Private sector company/others (<i>Tick Any</i>)
VII	Collaborator	
	Organisation (C O)	
VIII	CO Status	
IX	Objectives	
Х	Methodology	
ΧI	Deliverables	New/Upgraded Product; New/Upscaled Process; New/ Upgraded System; Services (including software); Feasibility analysis; report; mention any other in bullet form

Note: Restrict the above information to single A4 page size

File No.	DST/WTI/
	(TO BE FILLED BY DST)

Financial requirements:

(Break- up of cost)

SI no.	ITEM	Description	Individual	Total Amount
			sub-head cost	(All figure in lakhs)
1	MANPOWER			
	(mention Posts with gross			
	emoluments)			
	(Refer Annexure –viii)			
2	PERMANENT EQUIPMENTS			
	LIST			
	(mention cost of individual			
	item)			
3	OTHER COST		1	
4	CONSUMABLES			
5	TRAVEL			
6	CONTINGENCIES			
7	OVERHEADS CHARGES			
	GRAND TO	OTAL		

Grand total :

Collaborator share (if any) (Mention the Item & its amount):
Note: Kindly restrict the information to single A 4 page size
II. CORE PROPOSAL
3. Project Title
4. Principal Investigator (PI) Name:
Designation:
Complete Address (with city pin code):
Telephone & Mobile No.:
E-mail:
3. Co-Principal Investigator (Co-PI)
Name:
Designation:
Complete address(with city pin code):
Telephone & mobile No. :
E-mail:
6. Collaborating Agencies/Industries (If any)

DST Share:

5. Target Beneficiaries

7. Critical Review of Status Identifying Gaps
(include references)
3.1 National Status Review
3.2 International Status Review
8. Outline of the Project (with schematics, where possible)
(Define the problems and give technical details)
9. Deliverables of the project (brief description)
i) New/Upgraded Product
ii) New/Upscaled Process
iii) New/ Upgraded System
iv) Services (including software)
v) Feasibility analysis
vi) Any other
10. Methodology
(Please highlight how success in the project execution will be ensured)
11. Milestones with Months, Work Elements & Responsible Organisation for
each Work Element

7. Objectives of the Proposal

(precise and quantified, use Bullet Form)

S. No.	Milestone	Target Month	Work Elements	Responsible Organisation
			1.	
			2.	
			3.	
			1.	
			2.	
			3.	
			1.	
			2.	
			3.	

12. Work Plan

(Attach bar chart giving project activities and milestones. Highlight Milestones)

13. Names of 5 Experts/Agencies/ Institution working in the similar area

(Please give complete Name, Designation, Address with pincode, telephone numbers & e-mail addresss)

14. Any other information relevant to the Project proposal/ execution of the project

III. Proforma for Bio-Data of Principal Investigator (PI) and Co-Principal Investigator (Co PI)

1. 2. 3. 4.	Name Gender E-mail II Qualifica					
	S.No.	Degree	Institution	Year	Division/	Class
4.	Employi	ment Experien	ce			
	S.No.	Position & Or	ganisation	Nature of	Job	Period
5.	List of P	ublications (Fo	er last 5 years only)			
	5.1 Jou	ırnal Publicatic	ons			
	5.2 Co	nference Prese	ntations			

Patents filed/Granted with details

6.

Spon	sored Research Projects			
Title	Sponsoring Agency and Officer Concerned	Period	Amount	Achievements
	Spon	' ' ' ' ' ' '	Title Sponsoring Agency and Period	Title Sponsoring Agency and Period Amount

S. No	Title	Sponsoring Agency	Period Amount			

10. Sponsored Research/Consultancy Projects submitted for approval

S.No.	Title	Agency to whom submitted	Duration	Amount

IV. BUDGET ESTIMATES

2. Break-up of Total Budget

(All Amount in Lakhs)

S.No	Item	1 st Yea	r	2 nd Ye	ar	3 rd Yea	ar	Total	
		DST	Collaborator*	DST	Collaborator*	DST	Collaborator*	DST	Collaborator*
1.	Manpower								
2.	Permanent Equipment								
3.	Other Costs (Outsourcing, Fabrication, Testing and patents etc)								
4.	Consumables								
5.	Travel								
6	Contingencies								

7	Overhead Charges				
	Total				

Grand Total (DST + Collaborator)

^{*} Give financial contributions of Each Collaborator Separately, if any.

2. Itemised	Budget				
(Please provide	justification)				
2.1. Manpower					
lget for Salaries	(To be borne by DST))			
Designation	Qualification	Salary per month	No. of Persons	Amount Rupees in Lakh	Justification
Budget for Salar	ies (To be borne by Co	ollaborator(s), if any)			
	ies (To be borne by Co	Salary per month	No. of Persons	Amount Rupees in Lakh	Justification
Budget for Salari Designation			No. of Persons	Amount Rupees in Lakh	Justification
			No. of Persons	Amount Rupees in Lakh	Justification

Budget for Permanent Equipment (To be borne by DST**)**

Description of	Foreign/Indigenous	Unit Landed Price	Nos. of Equipment	Total Rupees	Justification in relation to
Equipment		(CIF+Custom Duty+			project requirement
		others)			

Budget for Permanent Equipment (To be borne Collaborator (s), if any)

Description of Equipment	Foreign/Indigenous	Unit Landed Price (CIF+Custom Duty+ others)	Nos. of Equipment	Total Rupees	Justification in relation to project requirement

^{*} A List of equipment and facilities available to the investigators and relevant to the project may also be provided, separately.

2.3. Other Costs (Outsourcing, Fabrication, Testing and Patenting etc.)

Budget for Other Costs (To be borne by DST)

Item	1 st Year	2 nd Year	3 rd Year	Total	Justification including basis of cost estimates/quotations
Outsourcing					
Fabrication					
Testing					
Patenting					
Others					

Budget for Other costs (To be borne Collaborator (s), if any)

Item	1 st Year	2 nd Year	3 rd Year	Total	Justification including basis of cost estimates/quotations
Outsourcing					
Fabrication					
Testing					
Patenting					
Others					

4.4 Consumables

Budget for Consumable Materials (To be borne by DST)

1 st Year	2 nd Year	3 rd Year	Total	Justification including basis of cost estimates / quotations

Budget for Consumable Materials (To be borne by Collaborator (s), if any)

1 st Year	2 nd Year	3 rd Year	Total	Justification including basis of cost
				estimates/quotations

2.5. Domestic Travel*

Budget for Domestic Travel (To be borne by DST**)**

1 st Year	2 nd Year	3 rd Year	Total Rupees	Justification;	indicating		
				(journeys, t transport	mode and	class	of

Budget for Domestic Travel (To be borne Collaborator (s), if any)

1 st Year	2 nd Year	3 rd Year	Total Rupees	Justification; indicating
				journeys, mode and class of transport.

^(*) No foreign travel is generally not permitted under DST grants. Class and mode of transportation should be as per the entitlement of the concerned staff in the institute. Travel component of PRC visits would be added by DST separately in the project cost).

2.7 Contingencies

Budget for Contingencies (To be borne by DST)

1 st Year	2 nd Year	3 rd Year	Total	Justification including basis of cost estimates/quotations

Budget for Contingencies (To be borne Collaborator (s), if any)

,	1 st Year	2 nd Year	3 rd Year	Total	Justification including basis of cost estimates/quotations

2.7	Designation	on of the officer in organization who is vested with financials power:				
	Proposal i	f approved, Payment shall be made in favour of				
	i.	Bank Account No.				
	ii.	IFSC Code.				
	iii.	MICR Code.				
	iv.	Bank Branch Address				
	(This	will facilitate in fast electronic transfer of funds)				
2.8	2.8 Mention HRA % applicable to Research fellow in your institute and the classification category of yo					
	city/ tow	n:				
	(Please en	nsure to fill all the above details otherwise it shall be considered as NIL)				

V. UNDERTAKING FROM THE INVESTIGATOR(S)

Pro	ojec	t Title:		
	1.	I/We have carefully read the terms and conditions of the Water Technology Initiative Programme and I/We agree to abide by them.		
	2.	I/We have not submitted this or a similar Project proposal elsewhere for financial support.		
 I/We have explored and ensured that the equipment and the basic facilities describe Research Proposal, will actually be available as and when required for the purpos Project. I/We shall not request financial support under this project, for procurement items. 				
	4.	I/We undertake that spare or idle capacity of the permanent equipment procured under the Project will be made available to other legitimate users from parent and other organisations.		
	5.	I/We have enclosed the following :		
		Endorsement from the Head of the Institution		
а		(on letter head)		
b		Undertaking from the Collaborator(s)		
С		Complete Project Proposal (5 copies)		
		Name and signature of the Investigators		

Date

Place

VI. ENDORSEMENT FROM THE HEAD OF THE ORGANISATION

(To be typed on the letter-head of the organization)

Project Title

1.	Certified that the organization welcomes the participation of Dr/Mr/Mrs
	as the PI and Dr/Mr/Mrsas the Co-PI for the project and
	that in the unforeseen and legitimate event of discontinuation by the PI, the
	Co-PI will assume full responsibility for completion of the project. Information
	to this effect, endorsed by me, will be promptly sent to the DST

- 2. Certified that the equipment, other basic facilities and other administrative facilities as per the terms and conditions of the award of the Project, will be extended to the investigator(s) throughout the duration of the project
- 3. The Organization shall ensure that financial and purchase procedures are followed as per the prevailing norms of the organization, within the allocated budget.
- 4. The Organisation shall provide timely the Statement of Expenditure and the Utilisation Certificate of the grant as required by the DST in the prescribed format.
- - i. Organisation Name as per Bank records:
 - ii. Bank Account No.:
 - ii. IFSC Code:
 - iii. MICR Code:
 - vii. Bank Name:
 - viii. Bank Branch Address
 - ix. Unique Agency code of the Organisation and Institute:

As per the extant guidelines of Govt. of India, you are requested to register yourself on <u>Central Plan Scheme Monitoring System</u> (CPSMS) website and inform us unique agency code to facilitate the electronic fund transfer.

{website link- https://pfms.nic.in/Users/LoginDetails/Login.aspx}.

(Head of the Institute) Seal/Stamp

Date

Place

VII. Endorsement from Stakeholders/ Collaborating Industry/ Non-Academic Partners/Voluntary Organizations

(if any)

(On the official letter head)

I have gone through the Project proposal entitled...... submitted by(Name of PI) ...of.....(Name of the Institute) for DST funding and noted the obligations and responsibilities indicated in our name which are as below:

(Tick, as applicable)

- 1. Contribution in financial terms (mention amount in Rs.)
- 2. Contribution in Kind (list activities):
 - 2.a Pre-implementation of the project :
 - 2.a.1 Land approvals and acquisition
 - 2.a.2 Commitment towards technical / human resources.
 - 2.a.3 Legal clearances
 - 2.a.4 Sharing of data technical designs & drawings.
 - 2.a.5 Undertaking to maintain the assets.
 - 2.a.6 Providing data as required
 - 2.a.7 Sharing preliminary work done so far on similar activities.
 - 2.a.8 Any other, please specify.
 - 2.b During implementation of the project:
 - 2.b.1 Coordination and partership with the consortium.
 - 2.b.2 Depute a dedicated manpower team for the project.
 - 2.b.3 Community mobilization and engagement, group-creation, capacity building, training, orientation and awareness etc.
 - 2.b.4 Any other, please specify.
 - 2.c Post project:
 - 2.c.1 Undertaking for taking over of the project & ensuring the sustainability of the intervention.
 - 2.c.2 Generation and analysis of data from the intervention.

2.c.3 Any other, please specify.

above. A brief profile of my organization is summarised below:	
Name of Organisation	
Line of Business/ Service	
No. of employees	
Annual Turn over (if industry)	
The Annual Report for the last 3 financial years is enclosed.	
	(Head of the Organisation)
	Seal/Stamp
Date	
Place	

I hereby affirm that my organization/industry is committed to participate in the Project to the full extent as indicated including financial liabilities accruing therefrom as detailed

Annexure I

Terms & Conditions of the Grant

- Approval of the Research Proposal and the grant released for it is for the specific Project sanctioned and the released grant should be exclusively spent on the Project within the stipulated period. The Institution may use funds obtained from any other Organisation with the concurrence of DST, for the Project. Any un-spent balance out of the amount sanctioned must be surrendered to the Government of India through a crossed Cheque/ Demand Draft drawn in favour of Drawing & Disbursing Officer, DST.
- 2. For permanent, semi-permanent assets acquired solely or mainly out of the project grant, an audited record in the form of a register shall be maintained by the Institute. The term "Assets" include (a) the immovable property acquired out of the grant; and (b) movable property of capital nature where the value exceeds Rs 1000/-. The Institute is required to send to the Department of Science & Technology a list of Assets acquired from the grant. The grant shall not be utilised for construction of any building unless specific provision is made for that purpose. Full infrastructural facilities by way of accommodation, water, electricity, communication, etc. for smooth implementation of the project shall be provided by the Institute.
- 3. All the Assets acquired from the grant will be the property of the Government of India and should not be disposed off or encumbered or utilised for purposes other than those for which the grant had been sanctioned, without the prior sanction of the DST.
- 4. At the conclusion/ termination of the project, the Government of India will be free to sell or otherwise dispose off the Assets which are the property of the Government. The Institute shall render to the Government necessary facilities for arranging the sale of these assets. The Government of India has the discretion to gift the Assets to the Institutions or transfer them to any other Institution if it is considered appropriate.
- 5. The Institution/PI will furnish Six Monthly Progress Report (Annexure-V) (5 copies) of the work on the Project on half-yearly basis (i.e. if the date of start of a project is 12.09.07 the first Six Monthly Technical Progress report shall be for the period 12.09.07 to 31.03.08, the next will be from 01.04.08 to 30.09.08 and so on). In addition, the DST may designate a Scientist/ Specialist or an Expert Panel to visit the Institution periodically to review the progress of the work being carried out and to suggest suitable measures to ensure realisation of the objectives of the Project. During the implementation of the Project the Institution will provide all facilities to the visiting scientist/ specialist or the Expert Panel by way of accommodation, etc. at the time of their visit. In case of exceptional circumstances, request for extension for time period must be submitted to DST six months prior to the approved date of completion of the project (Annexure-VII). On completion of the Project, submit the final statement of Expenditure (Annexure –II) along with utilization certificate (Annexure –III) and ten copies of self contained Project Completion Report (Annexure-VI) as per DST format.
- 6. At the time of seeking further installment of the grant, The Institution/ PI has to furnish the following documents:
 - c) Statement of Expenditure (SE) (Annexure- II) and Utilisation Certificate (UC) (Annexure-III) for financial year upto 31st March (in original or copy if sent earlier)
 - d) An authenticated up-to-date Statement of Expenditure (annexure-II) including Committed Expenditure for the Project on the date of seeking further installment.

- 7. Request for specific approval of the Department to **carry forward** the unutilised grant to the next financial year for utilisation for the same Project, should be sent along with SE & UC, after completion of the financial year.
- 8. The Comptroller & Auditor General of India, at his discretion, shall have the right of access to the books and accounts of the Institution maintained in respect of the grant received from the Government of India.
- 9. The Institution will maintain separate audited accounts for the Project. If it is found expedient to keep a part or whole of the grant in a bank account earning interest, the interest thus earned should be reported to the DST and should be reflected in the Statement of Expenditure. The interest thus earned will be treated as a credit to the Institution to be adjusted towards further installment of the grant.
- 10. The Institution will not entrust the implementation of the work (except the out-sourced part as approved) for which the grant is being sanctioned to any other institution nor will it divert the grant receipts to other institutions as assistance. In case the Institution is not in a position to implement or complete the Project, it should, forthwith, refund to the DST the entire grant received by it or the balance grant with it in favour of DDO, DST.
- 11. All the personnel including Research personnel appointed under the project, for the full/ part duration of the project, are to be treated as temporary employees and will be governed by the Administrative rules/ service conditions (for leave, TA/DA etc) of the implementing Institute. They are not to be treated as employees of the Government of India and the DST will have no liability, whatsoever, for the project staff after the completion of the Project duration.
- 12. For the expeditious implementation of the research Project, the PI will take the assistance of the Institution in the process of selection and appointment of staff and payment to them. Scale and emoluments for the posts not covered under DST's OM are governed by the norms prevalent in the implementing Institution or as agreed upon in consultation with the DST
- 13. The DST reserves the right to terminate the project at any stage if it is convinced that the grant has not been properly utilised or satisfactory progress is not being made.
- 14. The Project becomes operative with effect from the date on which the Draft/ Cheque is received by the implementing Institution. This date should be intimated by the Institution authorities/ Principal Investigator to the DST. It will, in no case be later than one month after the receipt of the draft/ cheque by the Institution.
- 15.If the Principal Investigator (PI) to whom a grant for a project has been sanctioned wishes to leave the Institution where the project is based, the PI/Institution will inform the DST of the same and in consultation with the DST, evolve steps to ensure successful completion of the Project, before the PI is relieved.
- 16. The data pertaining to the project should be systematically collected, scientifically documented and submitted to DST which later would be placed in public domain. This clause would not be applicable for the projects where legal protection of the know–how generated is felt necessary.
- 17. Investigators wishing to publish technical/ scientific papers based on the research work done under the project should acknowledge the assistance received from the DST, indicating the scheme. Investigators are expected to publish some of the research papers emerging out of the Project work in leading Indian Journals.

18. If the results of research are to be legally protected, the results should not be published without securing legal protection for the research results. For projects identified to have a distinct potential for generating know-how, in the form of product/ process, that could be protected through patenting, copyrights etc., the PI should carefully follow the "Guidelines/ Instructions for Technology Transfer and Intellectual Property Rights" provided in the Guidelines for Implementing Research Projects booklet issued by the DST. [http://www.tifac.org.in] For further information/ clarification on this subject- The Director, Technology Information, Forecasting and Assessment Centre (TIFAC), Patent Facilitating Cell, Vishwakarma Bhawan, Shaheed Jeet Singh Marg, New Mehrauli Road, New Delhi- 110016, E-mail: tifac@nda.vsnl.net.in, may be contacted.

Annexure - II

COST DETAILS OF PERMANENT EQUIPMENT/ ASSESTS

9	Sl. No	Name	of	Sanctioned	Actual	Other		Utilisation Rate
		Equipme	ent	amount Rs.	Expenditure (*)	Expenses	(**)	(%)
		Asset	with		FE Rs.	If any		
		model	Name,					
		etc and	data of					
		procurei	ment					

(*) This should include only the cost of equipment, insurance and freight charges.

(**) Other expenses such as bank charges agency commission etc should be avoided through appropriate negotiations. If unavoidable expenses incurred, the same may be indicated.

COMPONENT/ STREAM APPLIED FOR:

(Tick the most appropriate one)

(Technology Development Stream):	
(

FORMAT FOR SUBMISSION OF PROPOSAL FOR SUPPORT UNDER WATER TECHNOLOGY INITIATIVE (WTI)

CONTENTS

S.No	ITEMS	Page No(s)
I	Proposal Summary	
II	Core Proposal	
III	Bio-Data of PI and Co-PI	
IV	Budget	
V	Undertaking from the Investigator	
VI	Endorsement from The Head of Institution	

		T
VII	Endorsement from the Collaborators	
Annexure	es ·	
I	Terms and Condition for the Grant	
II	Request for Annual Installment with Up-to-Date Statement of	
	Expenditure	
III	Utilisation Certificate	
IV	Cost Details of Permanent Equipment/ Assests	
V	Six Monthly Project Progress Report	
VI	Project Completion Report and the Comprehensive Report	
••		
VII	Request for Extension of Project	
VIII	Guidelines -Project Manpower	

III. Proposal Summary

S.	File No.	DST/WTI/
No.		(TO BE FILLED BY DST)
I	Title	
II	Project cost	(Amount in lakhs)
Ш	Duration	(in months)
Ш	PI Name	
	Date of Birth	
IV	Co-PI Name	
	Date of Birth	
V	Lead Organisation	
VI	Lead Organisation	Govt. organisation/ Statutory body/ Registered society (NGO)/ Registered society (autonomous body)/Trust /Govt. autonomous/ Govt. aided
	Status	institute/ Private sector company/others (Tick Any)
VII	Participating Industry	
VIII	Collaborator from	
	participating industry	
IX	Collaborator	
	Organisation (C O)	
Х	CO Status	
XI	Objectives	
XII	Methodology	
XIII	Deliverables	New/Upgraded Product; New/Upscaled Process; New/ Upgraded System; Services (including software); Feasibility analysis; report; mention any other in bullet form

Note: Restrict the above information to single A4 page size

File No.	DST/WTI/
	(TO BE FILLED BY DST)

Financial requirements:

(Break- up of cost)

SI no.	ITEM	Description	Individual	Total Amount
			sub-head cost	(All figure in lakhs)
1	MANPOWER			
	(mention Posts with gross emoluments)			
	(Refer Annexure –viii)			
2	PERMANENT EQUIPMENTS LIST			
	(mention cost of individual item)			
3	OTHER COST			
4	CONSUMABLES			
5	TRAVEL			
6	CONTINGENCIES			
7	OVERHEADS CHARGES			

Grand total :
DST Share:
Collaborator share (if any) (Mention the Item & its amount) :
Note: Kindly restrict the information to single A 4 page size
II. CORE PROPOSAL
1. Project Title
2. Principal Investigator (PI) Name:
Designation:
Complete Address (with city pin code):
Telephone & Mobile No. :
E-mail:
3. Co-Principal Investigator (Co-PI)
Name:
Designation:
Complete address(with city pin code):
Telephone & mobile No.:
E-mail:
4. Collaborating Agencies/Industries (If any)
5. Target Beneficiaries

6. Objectives of the Proposal

/	nrecise and	dauant	ified 115e	Bullet Form	۱
ı	precise uni	ı yuunu	ilieu, use	Dullet I Ullil	,

7. Chilical Review of Status Identifying da	eview of Status Identifying Gaps	7.
---	----------------------------------	----

(include references)

- 3.1 National Status Review
- 3.2 International Status Review

8. Outline of the Project (with schematics, where possible)

(Define the problems and give technical details)

9. Deliverables of the project (brief description)

- i) New/Upgraded Product
- ii) New/Upscaled Process
- iii) New/Upgraded System
- iv) Services (including software)
- v) Feasibility analysis
- vi) Any other

10. Methodology

(Please highlight how success in the project execution will be ensured)

11. Milestones with Months, Work Elements & Responsible Organisation for each Work Element

S. No.	Milestone	Target Month	Work Elements	Responsible Organisation
			1.	
			2.	
			3.	
			1.	
			2.	
			3.	
			1.	
			2.	
			3.	

12. Work Plan

(Attach bar chart giving project activities and milestones. Highlight Milestones)

13. Names of 5 Experts/Agencies/ Institution working in the similar area

(Please give complete Name, Designation, Address with pincode, telephone numbers & e-mail addresss)

14. Any other information relevant to the Project proposal/ execution of the project

III. Proforma for Bio-Data of Principal Investigator (PI) and Co-Principal Investigator (Co PI)

1. 2. 3. 4.	Name Gender E-mail II Qualifica					
	S.No.	Degree	Institution	Year	Division	n/Class
4.	Employr	ment Experie	nce			
	S.No.	Position & O	rganisation	Nature	e of Job	Period
5.	List of P	ublications (F	or last 5 years only	y)		
		irnal Publicati nference Pres				

Patents filed/Granted with details

6.

7.	. Books Published /Chapters contributed								
8.	8. Sponsored Research Projects								
S.	Title	Sponsoring	Agency	and	Period	Amount	Achievements		
No		Officer Conce	erned						
		·	·				·		

Consultancy Projects 9.

S. No	Title	Sponsoring Agency	Period	Amount	

Sponsored Research/Consultancy Projects submitted for approval 10.

S.No.	Title	Agency to whom submitted	Duration	Amount

IV. BUDGET ESTIMATES

6. Break-up of Total Budget

(All Amount in Lakhs)

S.No Item		1 st Year		2 nd Ye	2 nd Year		3 rd Year		Total	
		DST	Collaborator*	DST	Collaborator*	DST	Collaborator*	DST	Collaborator*	
1.	Manpower									
2.	Permanent Equipment									
3.	Other Costs (Outsourcing,Fabrication, Testing and patents etc)									
4.	Consumables									
5.	Travel									
6	Contingencies									
7	Overhead Charges									

Total				

Grand Total (DST + Collaborator)

^{*} Give financial contributions of Each Collaborator Separately, if any.

2. Itemised	Budget				
(Please provide	justification)				
2.1. Manpower					
dget for Salaries	(To be borne by DST)				
Designation	Qualification	Salary per month	No. of Persons	Amount Rupees in Lakh	Justification
Budget for Salari	ies (To be borne by Co	ollaborator(s), if any)			
	Qualification	Salary per month	No. of Persons	Amount Rupees in Lakh	Justification
			No. of Persons	Amount Rupees in Lakh	Justification
Budget for Salari			No. of Persons	Amount Rupees in Lakh	Justification

Budget for Permanent Equipment (To be borne by DST**)**

Description of	Foreign/Indigenous	Unit Landed Price	Nos. of Equipment	Total Rupees	Justification in relation to
Equipment		(CIF+Custom Duty+			project requirement
		others)			

Budget for Permanent Equipment (To be borne Collaborator (s), if any)

Description of	Foreign/Indigenous	Unit Landed Price	Nos. of Equipment	Total Rupees	Justification in relation
Equipment		(CIF+Custom Duty+ others)			to project requirement

^{*} A List of equipment and facilities available to the investigators and relevant to the project may also be provided, separately.

2.3. Other Costs (Outsourcing, Fabrication, Testing and Patenting etc.**)**

Budget for Other Costs (To be borne by DST)

Item	1 st Year	2 nd Year	3 rd Year	Total	Justification including basis of cost estimates/quotations
Outsourcing					
Fabrication					
Testing					
Patenting					
Others					

Budget for Other costs (To be borne Collaborator (s), if any)

Item	1 st Year	2 nd Year	3 rd Year	Total	Justification including basis of cost estimates/quotations
Outsourcing					
Fabrication					
Testing					
Patenting					
Others					

2.4 Consumables

Budget for Consumable Materials (To be borne by DST)

1 st Year	2 nd Year	3 rd Year	Total	Justification including basis of cost estimates / quotations

Budget for Consumable Materials (To be borne by Collaborator (s), if any)

1 st Year	2 nd Year	3 rd Year	Total	Justification including basis of cost
				estimates/quotations

2.5. Domestic Travel*

Budget for Domestic Travel (To be borne by DST**)**

1 st Year	2 nd Year	3 rd Year	Total Rupees	Justification;	indicating		
				(journeys, t transport	mode and	class	of

Budget for Domestic Travel (To be borne Collaborator (s), if any)

1 st Year	2 nd Year	3 rd Year	Total Rupees	Justification; indicating
				ourneys, mode and class of transport.

^(*) No foreign travel is generally not permitted under DST grants. Class and mode of transportation should be as per the entitlement of the concerned staff in the institute. Travel component of PRC visits would be added by DST separately in the project cost).

2.8 Contingencies

Budget for Contingencies (To be borne by DST)

1 st Year	2 nd Year	3 rd Year	Total	Justification including basis of cost estimates/quotations

Budget for Contingencies (To be borne Collaborator (s), if any)

,	1 st Year	2 nd Year	3 rd Year	Total	Justification including basis of cost estimates/quotations

2.7	Designation	on of the officer in organization who is vested with financials power:				
	Proposal i	f approved, Payment shall be made in favour of				
	i.	Bank Account No.				
	ii.	IFSC Code.				
	iii.	MICR Code.				
	iv.	Bank Branch Address				
	(This	will facilitate in fast electronic transfer of funds)				
2.8	Mention HRA % applicable to Research fellow in your institute and the classification category of your					
	city/ tow	n:				
	(Please et	nsure to fill all the above details otherwise it shall be considered as NIL)				

V. UNDERTAKING FROM THE INVESTIGATOR(S)

Place

Pro	ject Title:					
	1. I/We have carefully read the terms and conditions of the Water Technology Initiative Programme and I/We agree to abide by them.					
2.	e have not submitted this or a similar Project proposal elsewhere for financial support.					
3.	I/We have explored and ensured that the equipment and the basic facilities described in the Research Proposal, will actually be available as and when required for the purpose of the Project. I/We shall not request financial support under this project, for procurement of these items.					
4.	I/We undertake that spare or idle capacity of the permanent equipment procured under the Project will be made available to other legitimate users from parent and other organisations.					
5. I/We have enclosed the following:						
	Endorsement from the Head of the Institution					
а	(on letter head)					
b	Undertaking from the Collaborator(s)					
С	Complete Project Proposal (5 copies)					
	Name and signature of the Investigators					
Dat	re					

VI. ENDORSEMENT FROM THE HEAD OF THE ORGANISATION

(To be typed on the letter-head of the organization)

Project Title

1.	Certified that the organization welcomes the participation of Dr/Mr/Mrs
	as the PI and Dr/Mr/Mrsas the Co-PI for the project
	and that in the unforeseen and legitimate event of discontinuation by the
	PI, the Co-PI will assume full responsibility for completion of the project.
	Information to this effect, endorsed by me, will be promptly sent to the
	DST

- 2. Certified that the equipment, other basic facilities and other administrative facilities as per the terms and conditions of the award of the Project, will be extended to the investigator(s) throughout the duration of the project
- 3. The Organization shall ensure that financial and purchase procedures are followed as per the prevailing norms of the organization, within the allocated budget.
- 4. The Organisation shall provide timely the Statement of Expenditure and the Utilisation Certificate of the grant as required by the DST in the prescribed format.
- 5. The grant for the proposal, if approved may be made in favour of, Payment shall be made in favour of
 - i. Organisation Name as per Bank records:
 - ii. Bank Account No.:
 - ii. IFSC Code:
 - iii. MICR Code:
 - x. Bank Name:
 - xi. Bank Branch Address
 - xii. Unique Agency code of the Organisation and Institute:

As per the extant guidelines of Govt. of India, you are requested to register yourself on <u>Central Plan Scheme Monitoring System</u> (CPSMS) website and inform us unique agency code to facilitate the electronic fund transfer.

 $\{website\ link-\underline{https://pfms.nic.in/Users/LoginDetails/Login.aspx}\}.$

	(Head of the Institu
	Seal/Sta
Date	
Place	
VII. Endorsement from collabo	ating Industry/ Agency
(if any)	
(On the off	icial letter head)
	proposal entitledsubmitted of the Institute) for DST funding and noted in our name which are as below:
obligations and responsibilities indicated	in our name which are as selow.
1. Contribution in financial terms (mention	on amount in Rs.)
2. Contribution in Kind (list activities)	
	/industry is committed to participate in uding financial liabilities accruing therefrom

Name of Organisation	
Line of Business	
No. of employees	
Annual Turn over	
The Annual Report for the last financial year is enclosed.	(Head of the Organisation) Seal/Stamp
Date	
Place	

Annexure I

Terms & Conditions of the Grant

- Approval of the Research Proposal and the grant released for it is for the specific Project sanctioned and the released grant should be exclusively spent on the Project within the stipulated period. The Institution may use funds obtained from any other Organisation with the concurrence of DST, for the Project. Any un-spent balance out of the amount sanctioned must be surrendered to the Government of India through a crossed Cheque/ Demand Draft drawn in favour of Drawing & Disbursing Officer, DST.
- 2. For permanent, semi-permanent assets acquired solely or mainly out of the project grant, an audited record in the form of a register shall be maintained by the Institute. The term "Assets" include (a) the immovable property acquired out of the grant; and (b) movable property of capital nature where the value exceeds Rs 1000/-. The Institute is required to send to the Department of Science & Technology a list of Assets acquired from the grant. The grant shall not be utilised for construction of any building unless specific provision is made for that purpose. Full infrastructural facilities by way of accommodation, water, electricity, communication, etc. for smooth implementation of the project shall be provided by the Institute.
- 3. All the Assets acquired from the grant will be the property of the Government of India and should not be disposed off or encumbered or utilised for purposes other than those for which the grant had been sanctioned, without the prior sanction of the DST.
- 4. At the conclusion/ termination of the project, the Government of India will be free to sell or otherwise dispose off the Assets which are the property of the Government. The Institute shall render to the Government necessary facilities for arranging the sale of these assets. The Government of India has the discretion to gift the Assets to the Institutions or transfer them to any other Institution if it is considered appropriate.
- 5. The Institution/ PI will furnish Six Monthly Progress Report (Annexure- V) (5 copies) of the work on the Project on half-yearly basis (i.e. if the date of start of a project is 12.09.07 the first Six Monthly Technical Progress report shall be for the period 12.09.07 to 31.03.08, the next will be from 01.04.08 to 30.09.08 and so on). In addition, the DST may designate a Scientist/ Specialist or an Expert Panel to visit the Institution periodically to review the progress of the work being carried out and to suggest suitable measures to ensure realisation of the objectives of the Project. During the implementation of the Project the Institution will provide all facilities to the visiting scientist/ specialist or the Expert Panel by way of accommodation, etc. at the time of their visit. In case of exceptional circumstances, request for extension for time period must be submitted to DST six months prior to the approved date of completion of the project (Annexure-VII). On completion of the Project, submit the final statement of Expenditure (Annexure -III) along with utilization certificate (Annexure -III) and ten copies of self contained Project Completion Report (Annexure-VII) as per DST format.
- 6. At the time of seeking further installment of the grant, The Institution/ PI has to furnish the following documents:
 - e) Statement of Expenditure (SE) (Annexure-II) and Utilisation Certificate (UC) (Annexure-III) for financial year upto 31st March (in original or copy if sent earlier)
 - f) An authenticated up-to-date Statement of Expenditure (annexure-II) including Committed Expenditure for the Project on the date of seeking further installment .
- 7. Request for specific approval of the Department to **carry forward** the unutilised grant to the next financial year for utilisation for the same Project, should be sent along with SE & UC, after completion of the financial year.
- 8. The Comptroller & Auditor General of India, at his discretion, shall have the right of access to the books and accounts of the Institution maintained in respect of the grant received from the Government of India.

- 9. The Institution will maintain separate audited accounts for the Project. If it is found expedient to keep a part or whole of the grant in a bank account earning interest, the interest thus earned should be reported to the DST and should be reflected in the Statement of Expenditure. The interest thus earned will be treated as a credit to the Institution to be adjusted towards further installment of the grant.
- 10. The Institution will not entrust the implementation of the work (except the out-sourced part as approved) for which the grant is being sanctioned to any other institution nor will it divert the grant receipts to other institutions as assistance. In case the Institution is not in a position to implement or complete the Project, it should, forthwith, refund to the DST the entire grant received by it or the balance grant with it in favour of DDO, DST.
- 11. All the personnel including Research personnel appointed under the project, for the full/ part duration of the project, are to be treated as temporary employees and will be governed by the Administrative rules/ service conditions (for leave, TA/DA etc) of the implementing Institute. They are not to be treated as employees of the Government of India and the DST will have no liability, whatsoever, for the project staff after the completion of the Project duration.
- 12. For the expeditious implementation of the research Project, the PI will take the assistance of the Institution in the process of selection and appointment of staff and payment to them. Scale and emoluments for the posts not covered under DST's OM are governed by the norms prevalent in the implementing Institution or as agreed upon in consultation with the DST
- 12. The DST reserves the right to terminate the project at any stage if it is convinced that the grant has not been properly utilised or satisfactory progress is not being made.
- 13. The Project becomes operative with effect from the date on which the Draft/ Cheque is received by the implementing Institution. This date should be intimated by the Institution authorities/ Principal Investigator to the DST. It will, in no case be later than one month after the receipt of the draft/ cheque by the Institution.
- 14. If the Principal Investigator (PI) to whom a grant for a project has been sanctioned wishes to leave the Institution where the project is based, the PI/Institution will inform the DST of the same and in consultation with the DST, evolve steps to ensure successful completion of the Project, before the PI is relieved.
- 15. The data pertaining to the project should be systematically collected, scientifically documented and submitted to DST which later would be placed in public domain. This clause would not be applicable for the projects where legal protection of the know–how generated is felt necessary.
- 16. Investigators wishing to publish technical/ scientific papers based on the research work done under the project should acknowledge the assistance received from the DST, indicating the scheme. Investigators are expected to publish some of the research papers emerging out of the Project work in leading Indian Journals.
- 17. If the results of research are to be legally protected, the results should not be published without securing legal protection for the research results. For projects identified to have a distinct potential for generating know-how, in the form of product/ process, that could be protected through patenting, copyrights etc., the PI should carefully follow the "Guidelines/ Instructions for Technology Transfer and Intellectual Property Rights" provided in the Guidelines for Implementing Research Projects booklet issued by the DST. [http://www.tifac.org.in] For further information/ clarification on this subject- The Director, Technology Information, Forecasting and Assessment Centre (TIFAC), Patent Facilitating Cell, Vishwakarma Bhawan,

Shaheed Jeet Singh Marg, New Mehrauli Road, New Delhi- 110016, E-mail: tifac@nda.vsnl.net.in, may be contacted.

<u>Annexure – II</u>

COST DETAILS OF PERMANENT EQUIPMENT/ ASSESTS

Sl. No	Name of	Sanctioned	Actual	Other	Utilisation
	Equipment	amount Rs.	Expenditure	Expenses (**)	Rate (%)
	Asset with		(*) FE Rs.	If any	
	model Name,				
	etc and data of				
	procurement				

^(*) This should include only the cost of equipment, insurance and freight charges.

^(**) Other expenses such as bank charges agency commission etc should be avoided through appropriate negotiations. If unavoidable expenses incurred, the same may be indicated.

DEPARTMENT OF SCIENCE AND TECHNOLOGY

POLICY ON CONFLICT OF INTEREST

FOR REVIEWER & COMMITTEE MEMBER or APPLICANT or DST OFFICER ASSOCIATED/ DEALING WITH THE SCHEME/ PROGRAM OF DST

Issues of Conflicts of Interest and ethics in scientific research and research management have assumed greater prominence, given the larger share of Government funding in the country's R & D scenario. The following policy pertaining to general aspects of Conflicts of Interest and code of ethics, are objective measures that is intended to protect the integrity of the decision making processes and minimize biasness. The policy aims to sustain transparency, increase accountability in funding mechanisms and provide assurance to the general public that processes followed in award of grants are fair and non-discriminatory. The Policy aims to avoid all forms of bias by following a system that is fair, transparent and free from all influence/ unprejudiced dealings, prior to, during and subsequent to the currency of the programme to be entered into with a view to enable public to abstain from bribing or any corrupt practice in order to secure the award by providing assurance to them that their competitors will also refrain from bribing and other corrupt practice and the decision makers will commit to prevent corruption, in any form, by their officials by following transparent procedures. This will also ensure a global acceptance of the decision making process adopted by DST.

Definition of Conflict of Interest:

Conflict of Interest means "any interest which could significantly prejudice an individual's objectivity in the decision making process, thereby creating an unfair competitive advantage for the individual or to the organization which he/she represents". The Conflict of Interest also encompasses situations where an individual, in contravention to the accepted norms and ethics, could exploit his/her obligatory duties for personal benefits.

1. Coverage of the Policy:

- a) The provisions of the policy shall be followed by persons applying for and receiving funding from DST, Reviewers of the proposal and Members of Expert Committees and Programme Advisory Committees. The provisions of the policy will also be applicable on all individuals including Officers of DST connected directly or indirectly or through intermediaries and Committees involved in evaluation of proposals and subsequent decision making process.
- b) This policy aims to minimize aspects that may constitute actual Conflict of Interests, apparent Conflict of Interests and potential Conflict of Interests in the funding mechanisms that are presently being operated by DST. The policy also aims to cover, although not limited to, Conflict of interests that are Financial (gains from the outcomes of the proposal or award), Personal (association of relative / Family members) and Institutional (Colleagues, Collaborators, Employer, persons associated in a professional career of an individual such as Ph.D. supervisor etc.)

2. Specifications as to what constitutes Conflict of Interest.

Any of the following specifications (non-exhaustive list) imply Conflict of Interest if,

- (i) Due to any reason by which the Reviewer/Committee Member cannot deliver fair and objective assessment of the proposal.
- (ii) The applicant is a directly relative# or family member (including but not limited to spouse, child, sibling, parent) or personal friend of the individual involved in the decision making process or alternatively, if any relative of an Officer directly involved in any decision making process / has influenced interest/ stake in the applicant@s form etc.
- (iii) The applicant for the grant/award is an employee or employer of an individual involved in the process as a Reviewer or Committee Member; or if the applicant to the grant/award has had an employer-employee relationship in the past three years with that individual.
- (iv) The applicant to the grant/award belongs to the same Department as that of the Reviewer/Committee Member.
- (v) The Reviewer/Committee Member is a Head of an Organization from where the applicant is employed.
- (vi) The Reviewer /Committee Member is or was, associated in the professional career of the applicant (such as Ph.D. supervisor, Mentor, present Collaborator etc.)
- (vii) The Reviewer/Committee Member is involved in the preparation of the research proposal submitted by the applicant.
- (viii) The applicant has joint research publications with the Reviewer/Committee Member in the last three years.
- (ix) The applicant/Reviewer/Committee Member, in contravention to the accepted norms and ethics followed in scientific research has a direct/indirect financial interest in the outcomes of the proposal.
- (x) The Reviewer/Committee Member stands to gain personally should the submitted proposal be accepted or rejected.

The Term "Relative" for this purpose would be referred in section 6 of Companies Act, 1956.

3. Regulation:

The DST shall strive to avoid conflict of interest in its funding mechanisms to the maximum extent possible. Self-regulatory mode is however recommended for stake holders involved in scientific research and research management, on issues pertaining to Conflict of Interest and Scientific Ethics. Any disclosure pertaining to the same must be made voluntarily by the applicant/Reviewer/Committee Member.

4. Confidentiality:

The Reviewers and the Members of the Committee shall safeguard the confidentiality of all discussions and decisions taken during the process and shall refrain from discussing the same with any applicant or a third party, unless the Committee recommends otherwise and records for doing so.

5. Code of Conduct

5.1 To be followed by Reviewers/Committee Members:

(a) All reviewers shall submit a conflict of interest statement, declaring the presence or absence of any form of conflict of interest.

- (b) The reviewers shall refrain from evaluating the proposals if the conflict of interest is established or if it is apparent.
- (c) All discussions and decisions pertaining to conflict of interest shall be recorded in the minutes of the meeting.
- (d) The Chairman of the Committee shall decide on all aspects pertaining to conflict of interests.
- (e) The Chairman of the Committee shall request that all members disclose if they have any conflict of interest in the items of the agenda scheduled for discussion.
- (f) The Committee Members shall refrain from participating in the decision making process and leave the room with respect to the specific item where the conflict of interest is established or is apparent.
- (g) If the Chairman himself/herself has conflict of interest, the Committee may choose a Chairman from among the remaining members, and the decision shall be made in consultation with Member Secretary of the Committee.
- (h) It is expected that a Committee member including the Chair-person will not seek funding from a Committee in which he/she is a member. If any member applies for grant, such proposals will be evaluated separately outside the Committee in which he/she is a member.

5.2 To be followed by the Applicant to the Grant/Award:

- (a) The applicant must refrain from suggesting referees with potential Conflict of Interest that may arise due to the factors mentioned in the specifications described above in Point No. 2.
- (b) The applicant may mention the names of individuals to whom the submitted proposal should not be sent for refereeing, clearly indicating the reasons for the same.

5.3 To be followed by the Officers dealing with Programs in DST:

While it is mandatory for the program officers to maintain confidentiality as detailed in point no. 6 above, they should declare, in advance, if they are dealing with grant applications of a relative or family member (including but not limited to spouse, child, sibling, parent) or thesis/ post-doctoral mentor or stands to benefit financially if the applicant proposal is funded. In such cases, DST will allot the grant applications to the other program officer.

6. Sanction for violation

6.1 For a) Reviewers / Committee Members and b) Applicant

Any breach of the code of conduct will invite action as decided by the Committee.

6.2 For Officers dealing with Program in DST

Any breach of the code of conduct will invite action under present provision of CCS (conduct Rules), 1964.

7. Final Appellate authority:

Secretary, DST shall be the appellate authority in issues pertaining to conflict of interest and issues concerning the decision making process. The decision of Secretary, DST in these issues shall be final and binding.

8. <u>Declaration</u>

I have read the above "Policy on Conflict of Interest" of the DST applicable to the Reviewer/ Committee Member/ Applicant/ DST Scheme or Program Officer # and agree to abide by provisions thereof.

I hereby declare that I have no conflict of interest of any form pertaining to the proposed grant *

I hereby declare that I have conflict of interest of any form pertaining to the proposed grant *

* & # (Tick whichever is applicable)

Name of the Reviewer/ Committee Member or Applicant or DST Officer

(Strike out whichever is not applicable)

(Signature with date)