

DST/ICPS/IHDS/2018 (General)
Government of India
Ministry of Science & Technology
Department of Science & Technology

Technology Bhavan
New Mehrauli Road
New Delhi- 110 016
Dated: 13.03.2019

ORDER

Sub: Financial assistance for the Consortium Mode Proposal under the Indian Heritage in Digital Space (IHDS) of Interdisciplinary Cyber Physical Systems (ICPS) Programme of the Department of Science & Technology (DST), GOI, New Delhi.

PI: Prof. Santanu Chaudhury, Director, Indian Institute of Technology (IIT)-Jodhpur, NH 65, Surpura Bypass Rd, Karwar, Rajasthan.

Sanction of the President is hereby accorded for the Consortium mode proposals under the Indian Heritage in Digital Space (IHDS) of ICPS Programme of DST consisting of 17 R&D projects at a total cost of **₹. 1275.551 Lakhs** (Rupees Twelve Crore Seventy Five Lakh Fifty Five Thousand One Hundred only) i.e. **₹. 534.900 Lakhs (Rupees Five Crore Thirty Four Lakh Nine Thousand only)** under non-recurring head and **₹. 740.651 Lakhs (Rupees Seven Crore Forty Lakh Sixty Five Thousand One Hundred only)** under recurring head to Indian Institute of Technology (IIT)-Jodhpur, Rajasthan for a duration of 36 months. Year wise break-up of the recurring grant of **₹. 740.651 Lakhs** to all the 17 R&D projects is given below and the break-up of each R&D projects is given at **Annexure-B**.

Sl No	PI, Affiliation & Project Title	Budget (Rupees in Lakhs)			
		1 st year	2 nd year	3 rd year	Total
1.	PI: Dr. Bhabatosh Chand, ISI Kolkata Digital Restoration and Reconstruction of Indian Heritage Artefacts with Focus on Murals, Manuscripts and Sculptures using Big Data Technology	12.2	12.2	11.064	35.464
2.	PI: Dr. Chetan Arora, IIT-Delhi Generating and Rendering Virtual Models of Indian Heritage Archaeological Sites from Head Mounted and Drone Mounted Cameras	14.88	14.88	15.74	45.5
3.	PI: Dr. Siddhartha Chaudhuri, IIT-Mumbai Recreating Digital Heritage in Augmented Realty	6	6	6.36	18.36
4.	PI: Dr. S Indu, DTU Delhi Development of frame work for imaging, restoring and archiving inscription and manuscript	6.64	5.94	6.347	18.927
5.	PI: Dr. S.C. Bose, CEERI-Pilani Development of Technologies for Environmental Audio and Aroma Digitization and Recreation for Indian Heritage Sites	16.6	14.6	14.39	45.59
6.	PI: Dr. M.B.Rajani, IISc-Bangalore Historical water systems in the extended landscape of Malaprabha River Valley	10.4	10.15	8.62	29.17

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7.	PI: Dr. Sukumar Nandi, IIT-Guwahati Archiving, Modelling and Visualization of the Eco-Cultural Heritage of the Majuli River island of Assam	16.7	16.7	16.1	49.5
	Dr. Rajib Kumar Bhattacharjya, Tezpur University	7.9	6.9	7.37	22.17
8.	PI: Dr. Shiva Ji, Mizoram University Creating Digital Heritage of Representative Architectural Marvels from Each State of North East India	13.2	13.2	13.06	39.46
9.	PI: Dr. Prof. Bharath Shekar, IIT-Mumbai Digital reconstruction of ancient Indian engineering via machine learning	13.73	13.53	14.564	41.824
10.	PI: Dr. Anindya Sinha, IISc-Bangalore Early fusion music: Cross-cultural musical exchanges in colonial India from the late 18th to the early 20th century	12.8	11.1	12.04	35.94
11.	PI: Dr. Avinash Sharma, IIIT-Hyderabad Computational Imaging and Visualization of Traditional Indian Dance Performances	11.3	11.3	12.24	34.84
12.	PI: Dr. Sundaresh, CSIR-NIO-Goa Relocating underwater archaeological structures off Dwarka to generate data for digitization	29.8	24.8	25.1	79.7
13.	PI: Dr. Subodh Kumar, IIT-Delhi Virtual immersion in under water sites	30.518	18.568	19.514	68.6
14.	PI: Prof. Subhasis Chaudhuri, IIT-Mumbai Haptic Rendering of Underwater Digital Heritage	21.42	11.22	12.166	44.806
15.	PI: Prof. Rajagopalan A. N, IIT-Madras Underwater Image Processing and Computer Vision	10.2	9.7	10.56	30.46
16.	PI: Dr. Uma Mudenagudi, KLET University. Crowdsourcing Framework for Digital Archiving and Presentation of Cultural Heritage	13.8	13.8	13.74	41.34
17.	PI: Prof. Santanu Chaudhury, Indian Institute of Technology (IIT)-Jodhpur. IHDS Co-ordination Project	20	20	19	59
	Total	268.088	234.588	237.975	740.651

2. The sanction of the President is also accorded to the release of **Rs. 1,70,00,000/- (Rupees One Crore Seventy Lakh only)** being the first installment of grant under "General Component" for implementation of the above mentioned project. Indian Institute of Technology (IIT)-Jodhpur, in turn shall release the 1st installment to each project to the component institutes as mentioned against each project and as per details given in the **Annexure-C** within seven days from the date of receipt of funds from DST as per the bank details for electronic transfer of funds through RTGS.

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3. This sanction is subject to the condition that the grantee organization will furnish to the Department of Science & Technology, financial year wise Utilization Certificate (UC) in the proforma prescribed as per GFR 2017 and audited statement of expenditure (SE) along with up to date progress report at the end of each financial year duly reflecting the interest earned / accrued on the grants received under the project. This is also subject to the condition of submission of the final statement of expenditure, utilization certificate and project completion report within one year from the scheduled date of completion of the project.

4. Indian Institute of Technology (IIT)-Jodhpur (the grantee organization) will have to enter & upload the Utilization Certificate in the PFMS portal besides sending it in physical form to this Division after closure of every financial year i.e. 31st of March every year, till completion of the project. The subsequent/final installment will be released only after confirmation of the acceptance of the UC by the Division and entry of previous Utilization Certificate in the PFMS. The sanction of the above amount is subject to terms and conditions as contained in the **Annexure-A**.

5. If the grant has been released under capital head through separate sanction order under the same project for purchase of equipment(s), separate SE/UC has to be furnished for the released Capital head grant.

6. The grant-in-aid being released is subject to the condition that

a) a transparent procurement procedure in line with the Provisions of General Financial Rules 2017 will be followed by the Institute/Organization under the appropriate rules of the grantee organization while procuring capital assets sanctioned for the above mentioned project and a certificate to this effect will be submitted by the Grantee organization immediately on receipt of the grant:

b) While submitting Utilization Certificate/Statement of Expenditure, the organization has to ensure submission of supporting documentary evidences with regard to purchase of equipment/capital assets as per the provisions of GFR 2017. Subsequent release of grants under the project shall be considered only on receipt of the said documents.

7. ***"The grantee organization (IIT-Jodhpur) will maintain separate audited account for the project and the entire amount of grant will be kept in an interest bearing account. For Grants released during F.Y. 2017-18 and onwards, all interests and other earnings against released Grant shall be remitted to Consolidated Fund of India (through Non-Tax Receipt Portal (NTRP), i.e. www.bharatkosh.gov.in), immediately after finalization of accounts, as it shall not be adjusted towards future release of Grant. A certificate to this effect shall have to be submitted along with Statement of Expenditure / Utilization Certificate for considering subsequent release of Grant/ Closure of Project accounts".***

8. ***"Grantee Institute should also follow Rule 230 (17) of GFR, 2017 concerning reservation of SC/ST/OBC, if applicable."***

9. DST reserves sole rights on the assets created out of grants. Assets acquired wholly or substantially out of government grants (except those declared as obsolete and unserviceable or condemned in accordance with the procedure laid down in GFR 2017), shall not be disposed of without obtaining the prior approval of DST.

10. In case the scheme provides for payment of honorarium / remuneration / fellowship / scholarship to the PI, a para may suitably be incorporated in the DSO to the effect that "PI is not drawing any emoluments/ salary/fellowship from any other project either supported by DST or by any other funding agency.

11. The account of the grantee organization shall be open to inspection by the sanctioning authority and audit (both by C&AG of India and Internal Audit by the Principal Accounts Office of the DST), whenever the organization is called upon to do so, as laid down under Rule 236(1) of General Financial Rules 2017.



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12. Due acknowledgement of technical support / financial assistance resulting from this project grant should mandatorily be highlighted by the grantee organization in bold letters in all publications / media releases as well as in the opening paragraphs of their Annual Reports during and after the completion of the project.

13. Failure to comply with the terms and conditions of the Bond will entail full refund with interest in terms of Rule 231 (2) of GFR 2017.

14. The expenditure involved is debit to Demand No.84, Department of Science & Technology for the year 2018-19:

3425 : Other Scientific Research (Major Head)
60 : Others
60.200 : Assistance to Other Scientific Bodies (Minor Head)
69 : Research & Development (S&T).
69.00.31 : Grants-in-Aid General for the year 2018-19 (Plan)
(Previous:3425.60.200.63.01.31-Super Computing Facility & Capacity Building)(ICPS)

15. The amount of **Rs. 1,70,00,000/- (Rupees One Crore Seventy Lakh only)** will be drawn by the Drawing and Disbursing Officer, DST and will be disbursed to Director, Indian Institute of Technology (IIT)-Jodhpur, Rajasthan through RTGS in Account No: **50200007479915**, HDFC Bank Ltd, IFSC Code: **HDFC0000142**, MICR Code : **342240002**.

16. These Consortium Mode Proposal under the Indian Heritage in Digital Space (IHDS) of ICPS-DST, being a multi-institutional networked project, the start date of the project shall be six months from the of receipt of funds from DST i.e. after completion of the project staff recruitment, procurement of equipment etc. However, completion of the above activities or 6 months whichever is earlier shall be construed as the start date of the project.

17. As per Rule 234 of GFR 2017, this sanction has been entered at S.No.99 in the register of grants maintained in the Division.

18. This issues with the concurrence of IFD vide their concurrence diary No.C/5855/IFD/2018-2019 dated 12.03.2019.

19. It is certified that all the Utilization Certificate in regard of all schemes/programmes/projects, present and previous pertaining to the institute have been received and no UC is pending against the organization as per the details in the PFMS also.


(Dr. Rajeev Sharma)
Scientist E


The Pay & Accounts Officer
Department of Science & Technology
New Delhi -110 016.

Copy for information and necessary action:

1. Cash Section (3 copies) for preparing the bill and remitting the amount to the above grantee.
2. Accounts Section, DST, New Delhi.
3. IFD, DST, New Delhi.
4. Director of audit (CW&M-II) AGCR Building, IP Estate, New Delhi.
5. Prof. Santanu Chaudhury, Director, Indian Institute of Technology (IIT)-Jodhpur, NH 65, Surpura Bypass Rd, Karwar, Rajasthan.
6. Director, Indian Statistical Institute (ISI), Plot No. 203, Barrackpore Trunk Road, Baranagar, Kolkata, West Bengal 700108.



7. Dr. Bhabatosh Chanda, Professor, Electronic & communication science unit, ISI, 203, B.T.Road, Kolkata, 700108.
8. The Registrar, Indian Institute of Technology-Delhi (IIT-D), Hauz Khas, New Delhi-110016.
9. Dr. Chetan Arora, Associate Professor, IIT Delhi, Hauz Khas, New Delhi-110016..
10. Registrar, Indian Institute of Technology (IIT)-Bombay, Powai, Mumbai-400 076, Maharashtra.
11. Dr. Siddhartha Chaudhuri, Institute Chair Assistant Professor, Department of Computer Science and Engineering, Indian Institute of Technology (IIT)-Bombay, Powai, Mumbai-400 076, Maharashtra.
12. Registrar, Delhi Technological University (DTU), Bawana Rd, Delhi Technological University, Shahbad Daulatpur Village, Rohini, Delhi, 110042.
13. Dr. S Indu, Associate Professor, Delhi Technological University (DTU), Bawana Rd, Delhi Technological University, Shahbad Daulatpur Village, Rohini, Delhi, 110042.
14. Director, Central Electronics Engineering Research Institute, Pilani, Rajasthan 333031.
15. Dr. S.C. Bose, Chief Scientist, CSIR- Central Electronics Engineering Research Institute, Pilani, Rajasthan 333031.
16. Registrar, Indian Institute of Science (IISc) Campus, Bengaluru, 560012, Karnataka.
17. Dr. M.B.Rajani, Assistant Professor, Indian Institute of Science (IISc) Campus, Bengaluru, 560012.
18. Director, Indian Institute of Technology (IIT) Guwahati, Guwahati- 781039.
19. Dr. Sukumar Nandi, Professor, Centre for Linguistic Science and Technology Guwahati, Indian Institute of Technology (IIT) Guwahati, Guwahati- 781039, Assam.
20. Registrar, Tezpur University, Napaam, Tezpur, Assam 784028
21. Dr. Rajib Kumar Bhattacharjya, Tezpur University, Napaam, Tezpur, Assam 784028
22. Registrar, Mizoram University, Aizawl, Mizoram 796004.
23. Dr. Shiva Ji, Assistant Professor, Mizoram University, Aizawl 796004, India.
24. Dr. Prof. Bharath Shekar, Assistant Professor, Department of Earth Sciences, Indian Institute of Technology (IIT)-Bombay, Powai, Mumbai-400 076, Maharashtra.
25. Dr. Anindya Sinha, Professor, Indian Institute of Science (IISc) Campus, Bengaluru, 560012, Karnataka.
26. Director, International Institute of Information Technology (IIIT) DLF Building, Professor CR Rao Rd, Gachibowli, Hyderabad, Telangana 500032.
27. Dr. Avinash Sharma, Assistant Professor, 2nd floor, kohli Research Block, International Institute of Information Technology (IIIT) DLF Building, Professor CR Rao Rd, Gachibowli, Hyderabad, Telangana 500032.
28. Director, CSIR-National Institute of oceanography, Goa, Dona Paula, Goa 403004.
29. Dr.Sundaresh, Principal Technical Officer, Marine Archaeology Unit, CSIR-National Institute of oceanography, Goa, Dona Paula, Goa 403004.
30. Dr. Subodh Kumar, Professor, Indian Institute of Technology-Delhi (IIT-D), Hauz Khas, New Delhi-110016.
31. Prof. Subhasis Chaudhui, Professor, Department Of Electrical Eng, Indian Institute of Technology (IIT)-Bombay, Powai, Mumbai-400 076, Maharashtra.
32. Registrar, Indian Institute of Technology (IIT)-Madras, Chennai-600 036, Tamil Nadu.
33. Prof. Rajagopalan A. N., Professor, Dept. of Electrical Engineering, Indian Institute of Technology (IIT)-Madras, Chennai-600 036, Tamil Nadu.
34. Registrar, KLE Technological University, BVB campus, Hubballi -580031, Karnataka
35. Dr. Uma Mudenagudi, Professor, School of Electronics Engineering, KLE Technological University, BVB campus, Hubballi -580031, Karnataka.
36. Head, ICPS, DST.
37. Sanction folder.


(Dr. Rajeev Sharma)
Scientist E

Department of Science & Technology Terms & Conditions of the Grant

1. Approval of the research proposal and the grant being released is for the specific project sanctioned and should be exclusively spent on the project within the stipulated time. The Institute is not permitted to seek or utilise funds from any other organisation (Government, Semi-Government, Autonomous and Private Bodies) for this research 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 grants, an audited record in the form of a register in the prescribed format (attached) 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 given by the Institute.
3. All the assets acquired from the grant will be the property of Government of India and should not be disposed off or encumbered or utilised for purpose other than those for which the grant had been sanctioned, without the prior sanction of this Department.
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 Institute or transfer them to any other Institute if it is considered appropriate.
5. The Institute/ PI will furnish Annual Progress Report of the work on the project on an yearly basis ((ie. if the date of start of a project is 12.09.97 the first Annual Technical Progress report shall be for the period 12.09.97 to 30.09.98, the next will be from 01.10.98 to 30.09.99 and so on). In addition, the DST may designate Scientist/ Specialist or an Expert Panel to visit the Institute 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 Institute will provide all facilities to the visiting scientist/ specialist or the Expert Panel by way of accommodation etc. at the time of their visit. On completion of the project 5 copies of a final consolidated Project Completion Report on the work done on the project should be sent to the DST.
6. At the time of seeking further instalment of grant, The Institute/ PI has to furnish the following documents:

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- a) Utilisation Certificate (UC) and Statement of Expenditure (SE) for the previous financial year (in original or copy if sent earlier);
 - b) Latest authenticated Statement of Expenditure including Committed Expenditure, for expenditure since 1st April of that financial year till the previous month; and
 - c) Technical Annual Progress Report, if not sent earlier.
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 Institute maintained in respect of the grant received from the Government of India.
 9. The institute 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 Institute to be adjusted towards further instalment of grant.
 10. The institute will not entrust the implementation of the work for which the grant is being sanctioned to another institution nor will it divert the grant receipts to other institute as assistance. In case the Institute is not in a position to implement or complete the project, it should, forthwith, refund to this Department the entire grant received by it or the balance grant with it.
 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 completion of the project duration.
 12. For the expeditious implementation of the research project, the PI will take the assistance of the Institute 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 norms prevalent in the implementing Institution or as may be decided in consultation with 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 appropriate 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 this Department. *It will, in no case be later than one month after the receipt of the draft/ cheque by the Institute.*
 15. If the PI to whom a grant for a project has been sanctioned wishes to leave the Institution where the project is based, the Institute/ PI will inform the same to the DST and in consultation with DST, evolve steps to ensure successful completion of the project, before relieving the PI.



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16. Investigators wishing to publish technical/ scientific papers based on the research work done under the project, should acknowledge the assistance received from DST, indicating the scheme. Investigators are also requested 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 action being taken to secure legal protection for the research results.
18. 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. For further information/ clarification on this subject, please contact:

Advisor - Patent Facilitating Cell, Department of Science & Technology, Technology Bhavan, New Mehrauli Road, New Delhi - 110 016.

Tel : 91-11-42525808 and 2696 7458; Fax: 2686 3866; email : tifac@nda.vsnl.net.in



PROPOSAL -1

Project Title: Digital Restoration and Reconstruction of Indian Heritage Artefacts with Focus on Murals, Manuscripts and Sculptures using Big Data Technology (PI: Dr. Bhabatosh Chanda, Professor, Electronic & communication science unit, ISI, 203, B.T.Road, Kolkata, 700108)

S No	Budget Head	Budget			
		1 st year	2 nd year	3 rd Year	Total
1	Project Staff				
	JRF 2 nos.	7.20	7.20	8.064	22.464
2	Contingencies	.50	.50	.50	1.50
3	Consumables	2.00	2.00	1.00	5.00
4	Domestic Travel	.50	.50	.50	1.50
	Total	10.2	10.2	10.064	30.464
5	Institutional overheads	2.00	2.00	1.00	5.00
	Grand Total	12.20	12.20	11.064	35.464

PROPOSAL -2

Project Title: Generating and Rendering Virtual Models of Indian Heritage Archaeological Sites from Head Mounted and Drone Mounted Cameras (PI: Dr. Chetan Arora, Associate Professor, IIT Delhi)

Sl.No	Budget Head	1st Year	2nd Year	3rd Year	Total
1	Project Staff				
	R.A-I – 1 @ Rs. 36,000/- + 20% HRA.	5.18	5.18	5.18	15.54
	JRF-02 @ Rs. 25,000/- + 20% HRA & Rs. 28,000/- + 20% HRA for 3rd year as SRF	7.20	7.20	8.06	22.46
2	Domestic Travel	0.50	0.50	0.50	1.50
3	Consumable	0.50	0.50	0.50	1.50
4	Contingency	0.50	0.50	0.50	1.50
	Subtotal	13.88	13.88	14.74	42.5
5	Institute Overheads	1.00	1.00	1.00	3.00
	Grand Total	14.88	14.88	15.74	45.5

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PROPOSAL -3

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Project title : Recreating Digital Heritage in Augmented Realty_ (PI : Dr. Siddhartha Chaudhuri, Institute Chair Assistant Professor, Department of Computer Science and Engineering, IIT Bombay, Powai, Mumbai) (Co-PI: Dr. Parag Kumar Chaudhuri, IIT-Bombay)

Sl.No	Budget head	1 st Year	2 nd Year	3 rd year	Total
1.	Project staff				
	JRF-01 @ Rs. 25,000/- for 2 years & @ Rs. 28,000/- for 3 rd year as SRF	3.00	3.00	3.36	9.36
2	Domestic Travel	0.50	0.50	0.50	1.50
3	Consumables	1.00	1.00	1.00	3.00
4	Contingency	0.50	0.50	0.50	1.50
	Total	5	5	5.36	15.36
5	Overheads	1.00	1.00	1.00	3.00
	Grand Total	6	6	6.36	18.36

PROPOSAL -4

Project title : Development of frame work for imaging, restoring and archiving inscription and manuscript (PI : Dr. S Indu, Associate Professor, DTU, Bawana Road Delhi)

Sl.No	Budget head	1 st Year	2 nd Year	3 rd year	Total
1.	Project staff				
	JRF - 1 No @ Rs. 25000 + 30% HRA & Rs. 28000 + 30% HRA for 3 rd year as SRF	3.90	3.90	4.37	12.17
2	Domestic Travel	0.50	0.50	0.50	1.50
3	Consumables	0.50	0.50	0.40	1.40
4	Contingencies	0.50	0.50	0.50	1.50
	Total	5.4	5.4	5.77	16.57
5	Institutional overheads	1.24	0.54	0.577	2.357
	Grand Total	6.64	5.94	6.347	18.927

PROPOSAL -5

Project title Development of Technologies for Environmental Audio and Aroma Digitization and Recreation for Indian Heritage Sites_ (PI : Dr. S.C. Bose, Chief Scientist, CSIR-CEERI, Pilani-333301 (Raj.), India) (Co-PI : Dr. Abhijit Karmakar, Mr. Rahul Prajesh and Dr. R. Mukhiya CSIR-CEERI, Pilani-333301).

Sl.No	Item	1 st Year	2 nd Year	3 rd year	Total
1.	Project Staff				
	JRF-2 @ Rs. 25,000/- +10% HRA for the first two years and @ Rs. 28,000/- + 10% HRA for the 3 rd year as SRF	6.60	6.60	7.39	20.59
2.	Travel	0.50	0.50	0.50	1.50
3.	Consumables	7.00	5.00	5.00	17.00
4.	Contingency	0.50	0.50	0.50	1.50
	Total	14.6	12.6	13.39	40.59

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5.	Overheads	2.00	2.00	1.00	5.00
	Grand Total	16.6	14.6	14.39	45.59

PROPOSAL -6

Project title : Historical water systems in the extended landscape of Malaprabha River Valley
(PI: Dr. M.B.Rajani, Assistant Professor, Indian Institute of Science Campus, Bengaluru, 560012)
(Co-PI : Dr. SrikumarM. Menon, Indian Institute of Science Campus, Bengaluru, 560012).

Sl.No	Item	IIT-Bombay			
		1 st Year	2 nd Year	3 rd year	Total
1.	Project staff				
	JRF-01 @ Rs. 25,000/- + 30% HRA for 2 years & @ Rs. 28,000/- + 30% HRA for 3 rd year as SRF	3.90	3.90	4.37	12.17
2	Domestic Travel	0.50	0.50	0.50	1.50
3	Consumables	0.50	0.25	0.25	1.00
4	Contingency	0.50	0.50	0.50	1.50
5	Others	4.00	4.00	2.00	10.00
	Total	9.4	9.15	7.62	26.17
6	Overheads	1.00	1.00	1.00	3.00
	Grand Total	10.4	10.15	8.62	29.17

PROPOSAL -7

Project title : Archiving, Modelling and Visualization of the Eco-Cultural Heritage of the Majuli River island of Assam (PI: Dr. Sukumar Nandi, Professor, Centre for Linguistic Science and Technology Guwahati, Indian Institute of Technology Guwahati, Guwahati- 781039) (Co-PI : Dr. Rajib Kumar Bhattacharjya, Dr. Samit Bhattacharya & Dr. Parasmoni Dutta).

Sl.No	Item	IIT-Guwahati				Tezpur University			
		1 st Year	2 nd Year	3 rd year	Total	1 st year	2 nd year	3 rd year	Total
1.	Project staff								
	JRF-03 to IIT-G & JRF-01 to TU	11.70	11.70	13.10	36.50	3.90	3.90	4.37	12.17
2	Travel	0.50	0.50	0.50	1.50	0.50	0.50	0.50	1.50
3	Consumables	2.00	2.00	1.00	5.00	1.00	1.00	1.00	3.00
4	Contingency	0.50	0.50	0.50	1.50	0.50	0.50	0.50	1.50
	Total	14.7	14.7	15.1	44.5	5.9	5.9	6.37	18.17
5	Overheads	2.00	2.00	1.00	5.00	2.00	1.00	1.00	4.00
	Grand Total	16.7	16.7	16.1	49.5	7.9	6.9	7.37	22.17

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R. Sharma

PROPOSAL -8

Project title : Creating Digital Heritage of Representative Architectural Marvels from Each State of North East India (PI : Dr. Shiva Ji, Assistant Professor, Mizoram University, Aizwal 796004, india)

Sl.No	Item	1 st Year	2 nd Year	3 rd year	Total
1.	Project staff				
	JRF-02 @ Rs. 25,000/-+20% HRA for 2 years and @ Rs. 28,000/- + 20% HRA for 3 rd year as SRF	7.20	7.20	8.06	22.46
2	Travel	0.50	0.50	0.50	1.50
3	Consumables	1.00	1.00	1.00	3.00
4	Contingency	0.50	0.50	0.50	1.50
5	Miscellaneous	3.00	3.00	2.00	8.00
	Total	12.2	12.2	12.06	36.46
6	Overheads	1.00	1.00	1.00	3.00
	Grand Total	13.2	13.2	13.06	39.46

PROPOSAL -9

Project title : Digital reconstruction of ancient Indian engineering via machine learning (PI : Dr. Prof. Bharath Shekar, Assistant Professor, Department of Earth Sciences, IIT Bombay, Powai, Mumbai, 400076) (Co-PI : Prof. Vivek Natarajan & Prof. Debasish Chatterjee, IIT Bombay, Powai, Mumbai, 400076)

Sl.No	Item	1 st Year	2 nd Year	3 rd year	Total
1.	Project staff				
	JRF-02 @ Rs. 25,000/-+30% HRA for 2 years and @ Rs. 28,000/- + 30% HRA for 3 rd year as SRF	7.80	7.80	8.74	24.34
2	Travel	0.50	0.50	0.50	1.50
3	Consumables	0.50	0.50	0.50	1.50
4	Contingency	0.50	0.50	0.50	1.50
5	Miscellaneous	3.00	3.00	3.00	9.00
	Total	12.3	12.3	13.24	37.84
6	Overheads	1.43	1.23	1.324	3.984
	Grand Total	13.73	13.53	14.564	41.824

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PROPOSAL -10

Project title : Early fusion music: Cross-cultural musical exchanges in colonial India from the late 18th to the early 20th century (PI: Dr. Anindya Sinha, Professor, Indian Institute of Science Campus, Bangalore 560012, India) (Co-PI : Dr. M B Rajani, Dr. Nithin Nagaraj & Dr. Naresh Keerthi, IISc-Bangalore)

Sl.No	Item	1 st Year	2 nd Year	3 rd year	Total
1.	Project staff				
	JRF-02 @ Rs. 25,000/-+30% HRA for 2 years and @ Rs. 28,000/- + 30% HRA for 3 rd year as SRF	7.80	7.80	8.74	24.34
2	Travel	0.50	0.50	0.50	1.50
3	Consumables	0.30	0.30	0.30	0.90
4	Contingency	0.50	0.50	0.50	1.50
5	Miscellaneous/workshops	2.00	1.00	1.00	4.00
	Total	11.1	10.1	11.04	32.24
6	Overheads	1.70	1.00	1.00	3.70
	Grand Total	12.8	11.1	12.04	35.94

PROPOSAL -11

Project title : Computational Imaging and Visualization of Traditional Indian Dance Performances) (PI : Dr. Avinash Sharma, Assistant Professor, 2nd floor, kohli Research Block, IIIT Hyderabad Campus, Gachibowli, Hyderabad, Telangana, 500032) (Co-PI : Dr. Vineet Gandhi, Dr. Anoop Namboodiri & Prof. P. J. Narayanan, IIIT-Hyderabad).

Sl.No	Item	1 st Year	2 nd Year	3 rd year	Total
1.	Project staff				
	JRF-02 @ Rs. 25,000/-+30% HRA for 2 years and @ Rs. 28,000/- + 30% HRA for 3 rd year as SRF	7.80	7.80	8.74	24.34
2	Travel	0.50	0.50	0.50	1.50
3	Consumables	1.50	1.50	1.50	4.50
4	Contingency	0.50	0.50	0.50	1.50
	Total	10.3	10.3	11.24	31.84
5	Overheads	1.00	1.00	1.00	3.00
	Grand Total	11.3	11.3	12.24	34.84

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PROPOSAL -12

Project title : Relocating underwater archaeological structures off Dwarka to generate data for digitization (PI : Dr. Sundaresh, Principal Technical Officer, Marine Archaeology Unit, CSIR-National Institute of oceanography, Goa, Dona Paula, Goa 403004, India) (Co-PI : Dr. AS Gaur, NIO, Gao)

Sl.No	Budget head	1 st Year	2 nd Year	3 rd year	Total
1.	Project staff				
	JRF-03 @ Rs. 25,000/-+20% HRA for 2 years and @ Rs. 28,000/- + 30% HRA for 3 rd year as SRF	10.80	10.80	12.10	33.70
2	Travel	0.50	0.50	0.50	1.50
3	Consumables	3.00	3.00	2.00	8.00
4	Contingency	0.50	0.50	0.50	1.50
5	Other cost	10.00	5.00	5.00	20.00
	Total	24.8	19.8	20.1	64.7
6	Overheads	5.00	5.00	5.00	15.00
	Grand Total	29.8	24.8	25.1	79.7

PROPOSAL -13

Project title : Virtual immersion in under water sites (PI : Subodh Kumar, Professor, Indian Institute of Technology (IIT)-Delhi, New Delhi) (Co-PI : Dr. Subhashis Banerjee, Dr. Prem K Kalra & Dr. Arun Kumar, IIT-Delhi)

Sl.No	Budget head	1 st Year	2 nd Year	3 rd year	Total
1.	Project staff				
	RA-I - 1 No @ Rs. 36,000/- + 20% HRA	5.18	5.18	5.18	15.54
	JRF-02 @ Rs. 25,000/-+20% HRA for 2 years and @ Rs. 28,000/- + 20% HRA for 3 rd year as SRF	7.20	7.20	8.06	22.46
2	Travel	0.50	0.50	0.50	1.50
3	Consumables	3.00	1.00	1.00	5.00
4	Contingency	0.50	0.50	0.50	1.50
5	Other cost	5.00	2.50	2.50	10.00
	Total	21.38	16.88	17.74	56.00
6	Overheads	9.138	1.688	1.774	12.60
	Grand Total	30.518	18.568	19.514	68.6

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PROPOSAL -14

Project title : Haptic Rendering of Underwater Digital Heritage (PI : Prof. Subhasis Chaudhuri, Professor, Department Of Electrical Eng, IIT Bombay, Powai, Mumbai)

Sl.No	Budget Head	1 st Year	2 nd Year	3 rd year	Total
1.	Project staff				
	JRF-02 @ Rs. 25,000/-+30% HRA for 2 years and @ Rs. 28,000/- + 30% HRA for 3 rd year as SRF	7.20	7.20	8.06	22.46
2	Travel	0.50	0.50	0.50	1.50
3	Consumables	3.00	1.00	1.00	5.00
4	Contingency	0.50	0.50	0.50	1.50
5	Miscellaneous	1.00	1.00	1.00	3.00
	Total	12.2	10.2	11.06	33.46
6	Overheads	9.22	1.02	1.106	11.346
	Grand Total	21.42	11.22	12.166	44.806

PROPOSAL -15

Project title : Underwater Image Processing and Computer Vision (PI : Prof. Rajagopalan A. N., Professor, Dept. of Electrical Engg., IIT Madras) (Co-PI : Prof. Kaushik Mitra, IIT-Madras)

Sl.No	Budget head	1 st Year	2 nd Year	3 rd year	Total
1.	Project staff				
	JRF-02 @ Rs. 25,000/-+30% HRA for 2 years and @ Rs. 28,000/- + 30% HRA for 3 rd year as SRF	7.20	7.20	8.06	22.46
2	Travel	0.50	0.50	0.50	1.50
3	Consumables	1.00	0.50	0.50	2.00
4	Contingency	0.50	0.50	0.50	1.50
	Total	9.2	8.70	9.56	27.46
5	Overheads	1.00	1.00	1.00	3.00
	Grand Total	10.2	9.7	10.56	30.46

... Contd/-

R. Sharma

PROPOSAL -16

Project title : Crowdsourcing Framework for Digital Archiving and Presentation of Cultural Heritage (PI : Dr. Uma Mudenagudi, Professor, School of Electronics Engineering, KLE Technological University, BVB campus, Hubballi -580031, Karnataka) (Co-PI : Dr. Meena S. M & Mr. Shankar G, KLE Technological University, BVB campus, Hubballi -580031, Karnataka)

S No	Budget Head	Budget			
		1 st year	2 nd year	3 rd Year	Total
1	Project Staff				
	JRF 2 nos. (Computer Science/Data Science.)	7.80	7.80	8.74	24.34
2	Contingencies	0.50	0.50	0.50	1.50
3	Domestic travel	0.50	0.50	0.50	1.50
4	Consumables	2.00	2.00	2.00	6.00
5	Miscellaneous/Contingency	1.00	1.00	1.00	3.00
	Total	11.8	11.8	12.74	36.34
6	Institutional overheads	2.00	2.00	1.00	5.00
	Grand Total	13.8	13.8	13.74	41.34

PROPOSAL -17

Project title : Co-ordination of Projects for Development of Technologies for Preservation and Recreation of Indian Heritage in Digital Space (PI : Prof. Santanu Chaudhury, Director, IIT-Jodhpur) (Co-PI : Prof. Subhashish Chaudhuri, IIT-Bombay)

S No	Budget Head	Budget			
		1 st year	2 nd year	3 rd Year	Total
1	Project Staff				
	JRF 2 nos. (Computer Science/Data Science.)	6.00	6.00	6.00	18.00
2	Contingencies	0.50	0.50	0.50	1.50
3	Domestic travel	0.50	0.50	0.50	1.50
4	Consumables	1.00	1.00	1.00	3.00
5	Workshop	10.00	10.00	10.00	30.00
	Total	18	18	18	54
6	Institutional overheads	2.00	2.00	1.00	5.00
	Grand Total	20	20	19	59

R. Sharma

Sl.No	Beneficiary	Account Number	Bank Name	IFSC Code	MICR Code	Recurring	Total
1	ISI-Kolkata	0071050000118	United Bank of India	UTBI0DLB140	700027046	10.00	10.00
2	IIT-Delhi	10773572600	State Bank of India	SBIN0001077	110002156	10.00	10.00
3	IIT-Bombay	10725729173	State Bank of India	SBIN0001109	400002034	6.00	6.00
4	DTU, Delhi	31007875089	State Bank of India	SBIN0010446	110002438	6.50	6.50
5	CEERI-Pilani	61033385318	State Bank of India	SBIN0031398	333003398	10.50	10.50
6	IISc-Bangalore	31728098170	State Bank of India	SBIN0002215	560002020	10.00	10.00
7	IIT-Guwahati	30247450489	State Bank of India	SBIN0014262	781002053	10.00	10.00
8	Tezpur university	30448821505	State Bank of India	SBIN0000195	784002002	7.00	7.00
9	Mizoram university	1548010004312	United Bank of India	UTBI0MZUH61	-	10.00	10.00
10	IIT-Bombay	10725729173	State Bank of India	SBIN0001109	400002034	10.00	10.00
11	IISc-Bangalore	31728098170	State Bank of India	SBIN0002215	560002020	10.00	10.00
12	IIT-Hyderabad	52081085019	State Bank of India	SBIN0021161	500002433	10.00	10.00
13	NIO-Goa	30267368692	State Bank of India	SBIN0003566	403002004	10.00	10.00
14	IIT-Delhi	10773572600	State Bank of India	SBIN0001077	110002156	10.00	10.00
15	IIT-Bombay	10725729173	State Bank of India	SBIN0001109	400002034	10.00	10.00
16	IIT Madras	2722101001741	Canara Bank	CNRB0002722	600015085	10.00	10.00
17	KLE University T	12442010009267	Syndicate Bank	SYNB0001244	580025011	10.00	10.00
18	IIT-Jodhpur	50200007479915	HDFC Bank Ltd	HDFC0000142	342240002	10.00	10.00
	TOTAL					170.00	170.00



DST/ICPS/DIGITAL POOMPUHAR/2017 (General)

Government of India
Ministry of Science & Technology
Department of Science & Technology

Technology Bhavan
New Mehrauli Road
New Delhi- 110 016
Dated: 14.03.2019

ORDER

Sub: Financial assistance for the Cluster proposals under the "Digital Poompuhar", Network project on Digital Reconstruction of Underwater Heritage Site- Poompuhar of Interdisciplinary Cyber Physical Systems (ICPS) Programme of the Department of Science & Technology (DST), GOI, New Delhi.

PI : Prof. S.M. Ramasamy, Professor of Eminence, Department of Remote sensing, Bharathidasan University, Tiruchirappalli- 623 021, Tamil Nadu.

Sanction of the President is hereby accorded to the approval of the above mentioned project at a total cost of Rs. 850.563 Lakhs (Rupees Eight Crores Fifty Lakh Fifty-Six Thousand Three Hundred only) for a duration of three years (36 months). The detailed breakup of the grant for the General as well as for Capital Components are given below:

General Component: **Rs. 801.213 Lakhs**

Capital Component : **Rs. 49.350 Lakhs**

Total ; Rs. 850.563 Lakhs

2. The sanction of the President is also accorded to the release of Rs. 130.00 Lakhs (Rupees One Crore Thirty Lakh only) being the first installment of grant under "General Component" for implementation of the above mentioned project. The item of expenditure for which the total allocation of Rs. 850.563 Lakhs has been approved for a period of 36 months are as given below:

Non-recurring (Capital Items)

Proposal No	Equipment details	Institute	Amount (Rs. In Lakhs)	Total (Rs. In Lakhs)
4	Software Tools	KLE Technological University, Hubballi	Rs. 15.00	Rs. 15.00
5	High end computer-02	Tamil University, Thanjavur	Rs. 1.00	Rs. 1.00
6	Satellite data (Cartosat, IRS P6LISS IV data and SAR/ERS data hard and soft copy, high resolution bathymetry data	Bharathidasan University, Tiruchirappalli	Rs. 3.00	Rs. 3.00
7	Satellite image -LISS -IV, Ressourcesat-2from NRSC & Computer and Peripherals	Gandhigram Rural Institute, Dindigal	Rs.4.00	Rs. 4.00
9	Equipment	Annamalai University	Rs. 0.75	Rs. 0.75
10	Equipment	Annamalai University	Rs. 0.60	Rs. 0.60
11	Equipment	Bharatiar University	Rs. 10.00	Rs. 10.00
13	High end data base server including softwares + internet connection for cloud access, Hand Augurs, Handheld GPS (High Resolution), Desktop Computers	Bharathidasan University, Tiruchirappalli	Rs. 15.00	Rs. 15.00
	Total		Rs. 49.350	Rs. 49.350

R. Shamy

Proposal-1

Recurring Items (General) (PI : Prof. Manoharan, AMET University, Chennai)

Sl.No	Budget Head	1 st Year	2 nd Year	3 rd year	Total
1.	Project Staff				
	(a) JRF-3* @ Rs. 25,000/- +30% HRA for the first two years and @ Rs. 28,000/- + 30% HRA for the 3 rd year as SRF	11.70	11.70	13.104	36.504
2.	Field Travel	1.50	1.50	1.50	4.50
3.	Data processing, noise corrections and geo-tagging	10.00	5.00	5.00	20.00
4.	Contingency	1.50	1.50	1.00	4.00
5.	Consumables	2.00	1.00	1.00	4.00
	Total	26.7	20.7	21.604	69.004
6.	Overheads	2.67	2.07	2.16	6.90
	Grand Total in Rs Lakhs	29.37	22.77	23.764	75.904

Recurring Items (General) (PI : Dr. Rajashekar, NIOT - Bangalore)

Sl.No	Item	1 st Year	2 nd Year	3 rd year	Total
1.	Under water Data Acquisition (0 to 70 Metres) Hiring charges for Ships / Boats, ROVs Hiring of Sub Bottom Profiler and Multi Beam Echo Sounder Equipment includes PCs, Software, Data Logger and Data base media	70.00	44.00	21.00	135.00
	Total	70.00	44.00	21.00	135.00
2.	Overheads	2.00	2.00	1.00	5.00
3.	Grand Total in Rs Lakhs	72.00	46.00	22.00	140.00

Proposal-2

Recurring Items (General) (PI: Dr. B Sridevi, Velammal College of Engineering, Madurai)

Sl.No	Budget Head	1 st Year	2 nd Year	3 rd year	Total
1.	Project Staff				
	(a) JRF-2 @ Rs. 25,000/- +20% HRA for the first two years and @ Rs. 28,000/- + 20% HRA for the 3 rd year as SRF	7.20	7.20	8.064	22.464
2.	Field Travel	1.00	1.00	0.50	2.50
3.	Contingency	0.50	0.50	0.50	1.50
4.	Consumables	0.50	0.50	0.50	1.50
5.	Total	9.20	9.20	9.564	27.964
	Overheads	0.92	0.92	0.956	2.796
6.	Grand Total in Rs Lakhs	10.12	10.12	10.52	30.76

Proposal-3

Recurring Items (General) (PI: Prof. M. Praveena, Ranganathan College of Engineering, Coimbatore)

Sl.No	Budget Head	1 st Year	2 nd Year	3 rd year	Total
1.	Project Staff				
	(a) JRF-1 @ Rs. 25,000/- +20% HRA for the first two years and @ Rs. 28,000/- + 20% HRA for the 3 rd year as SRF	3.60	3.60	4.032	11.232
2.	Field Travel	1.00	0.50	0.50	2.00
3.	Contingency	0.50	0.50	0.50	1.50
4.	Consumables	1.00	1.00	1.00	3.00
5.	Total	6.10	5.60	6.032	17.732
	Overheads	0.61	0.56	0.603	1.773
6.	Grand Total in Rs Lakhs	6.71	6.16	6.635	19.505

R. Sharma

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Recurring Items (General) (PI: Dr. Judi Nair, CUSAT, Cochin, Kerala)

Sl.No	Budget Head	1 st Year	2 nd Year	3 rd year	Total
1.	Project Staff				
	(a) JRF-1 @ Rs. 25,000/- +20% HRA for the first two years and @ Rs. 28,000/- + 20% HRA for the 3 rd year as SRF	3.60	3.60	4.032	11.232
2.	Field Travel	2.00	1.00	1.00	4.00
3.	Contingency	1.00	1.00	1.00	3.00
4.	Consumables	1.50	1.500	1.500	4.50
5.	Total	8.100	7.10	7.532	22.732
	<u>Overheads</u>	0.81	0.71	0.753	2.273
6.	Grand Total in Rs Lakhs	8.91	7.81	8.285	25.005

Proposal-4

Recurring Items (General) (PI: Dr. Uma Mudenagudi, KLE Technological University, Hubballi)

Sl.No	Item	1 st Year	2 nd Year	3 rd year	Total
1.	MANPOWER				
	JRF-2 @ Rs. 25,000/- +20% HRA for the first two years and @ Rs. 28,000/- + 20% HRA for the 3 rd year as SRF	7.20	7.20	8.064	22.464
2.	Field Travel/Conference registration	2.00	2.00	0.50	4.50
3.	Contingency, Consumables & Miscellaneous	1.00	1.00	1.00	3.00
4.	Capacity Building + Training	4.00	4.00	4.00	12.00
	Total	14.2	14.2	13.564	41.964
5.	<u>Overheads</u>	2.92	1.42	1.356	5.696
	Grand Total	17.12	15.62	14.92	47.66

Proposal-5

Recurring Items (General) (PI: Prof. Neelakantan, Tamil University, Thanjavur)

Sl.No	Item	1 st Year	2 nd Year	3 rd year	Total
1.	MANPOWER				
	JRF-2 @ Rs. 25,000/- +10% HRA for the first two years and @ Rs. 28,000/- + 10% HRA for the 3 rd year as SRF	6.60	6.60	7.392	20.592
2.	Travel	1.50	1.50	1.50	4.50
3.	Consumables	2.00	1.00	2.00	5.00
4.	Contingency	2.00	2.00	1.00	5.00
5.	Miscellaneous	0.25	0.25	0.25	0.75
	Total	12.35	11.35	12.142	35.842
6.	<u>Overheads</u>	1.335	1.135	1.214	3.684
	Grand Total	13.685	12.485	13.356	39.526

Proposal-6

Recurring Items (General) (PI: Dr. J Saravanavel, Bharathidasan University, Tiruchirappalli)

Sl.No	Item	1 st Year	2 nd Year	3 rd year	Total
1.	MANPOWER				
	JRF-2 @ Rs. 25,000/- +20% HRA for the first two years and @ Rs. 28,000/- + 20% HRA for the 3 rd year as SRF	7.20	7.20	8.064	22.464
2.	Domestic Travel (Field survey expenses, project operating cost, TA/DA, etc.)	1.50	1.50	1.50	4.50
3.	Consumables	2.00	2.00	2.00	6.00
4.	Contingencies and Field vehicles maintenance	2.00	2.00	2.00	6.00
	Total	12.7	12.7	13.564	38.964
5.	<u>Overheads</u>	1.57	1.27	1.356	4.196
	Grand Total	14.27	13.97	14.92	43.16

R. Sharm

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Proposal-7

Recurring Items (General) (PI: Dr. M. Muthukumar, Gandhigram Rural Institute, Dindigal, Tamil Nadu)

Sl.No	Item	1 st Year	2 nd Year	3 rd year	Total
1.	MANPOWER				
	JRF-2 @ Rs. 25,000/- +10% HRA for the first two years and @ Rs. 28,000/- + 10% HRA for the 3 rd year as SRF	6.60	6.60	7.39	20.59
2.	Travel / Field Work including data collection & attending meetings	1.50	1.50	1.50	4.50
3.	Consumables	0.50	0.50	0.50	1.50
4.	Contingencies	0.50	0.50	0.50	1.50
	Total	9.10	9.10	9.89	28.09
6.	Overheads	1.31	0.91	0.989	3.209
	Grand Total	10.41	10.01	10.879	31.299

Proposal-8

Recurring Items (General) (PI : Dr. R. Selvakumar, SASTRA University, Thanjavur, Tamil Nadu)

Sl.No	Item	1 st Year	2 nd Year	3 rd year	Total
1.	MANPOWER				
	JRF-2 @ Rs. 25,000/- +10% HRA for the first two years and @ Rs. 28,000/- + 10% HRA for the 3 rd year as SRF	6.60	6.60	7.39	20.59
2.	Travel (including taxi hiring charges, boat hiring charges and attending meetings)	1.50	1.50	1.50	4.50
3.	Consumables	1.00	0.50	0.50	2.00
4.	Contingencies	0.50	0.50	0.50	1.50
	Total	9.60	9.10	9.89	28.59
5.	Overheads	0.96	0.91	0.989	2.859
	Grand Total	10.56	10.01	10.879	31.449

Proposal-9

Recurring Items (General) (PI: Dr. S. Vasudevan, Annamalai University, Annamalai Nagar, Tamil Nadu)

Sl.No	Item	1 st Year	2 nd Year	3 rd year	Total
1.	MANPOWER				
	JRF-2 @ Rs. 25,000/- +10% HRA for the first two years and @ Rs. 28,000/- + 10% HRA for the 3 rd year as SRF	6.60	6.60	7.39	20.59
2.	Travel	1.00	0.50	0.50	2.00
3.	Consumables	2.00	1.00	1.00	4.00
4.	Contingencies	1.00	1.00	1.50	3.50
5.	Miscellaneous (Outsourcing)	5.00	5.00	0	10.00
	Total	15.6	14.1	10.39	40.09
6.	Overheads	1.635	1.41	1.039	4.084
	Grand Total	17.235	15.51	11.429	44.174

R. Sharma

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Proposal-10

Recurring Items (General) (PI: Dr. T Ramakumar, Annamalai University, Annamalai Nagar, Tamil Nadu)

Sl.No	Item	1 st Year	2 nd Year	3 rd year	Total
1.	MANPOWER				
	JRF-2 @ Rs. 25,000/- +10% HRA for the first two years and @ Rs. 28,000/- + 10% HRA for the 3 rd year as SRF	6.60	6.60	7.39	20.59
2.	Travel	1.00	0.50	0.50	2.00
3.	Consumables	1.50	1.00	1.50	4.00
4.	Contingencies	1.50	1.50	1.50	4.50
5.	Miscellaneous (Outsourcing)	5.00	5.00	0	10.00
	Total	15.6	14.60	10.89	41.09
6.	Overheads	1.62	1.46	1.089	4.169
	Grand Total	17.22	16.06	11.979	45.259

Proposal-11

Recurring Items (General) (PI: Dr. T. Devi, Bharathiar University, Coimbatore)

Sl.No	Item	1 st Year	2 nd Year	3 rd year	Total
1.	MANPOWER				
	JRF-2 @ Rs. 25,000/- +20% HRA for the first two years and @ Rs. 28,000/- + 20% HRA for the 3 rd year as SRF	7.20	7.20	8.064	22.464
2.	Domestic Travel	1.50	1.50	1.50	4.50
3.	Utility and Maintenance	0.50	1.50	2.00	4.00
4.	Consultant Fee & Training	2.00	2.00	1.00	5.00
5.	Workshops & Seminars	1.00	1.00	1.00	3.00
6.	Contingency	1.00	1.00	1.00	3.00
7.	Miscellaneous	1.00	1.00	1.00	3.00
	Total	14.2	15.2	15.564	44.964
6.	Overheads	2.42	1.52	1.5564	5.4964
	Grand Total	16.62	16.72	17.120	50.460

Proposal-12

Recurring Items (General) (PI: Prof. SM Ramasamy, Bharathidasan University, Tiruchirappalli- 623 021, Tamil Nadu)(National Co-ordination project)

Sl.No	Item	1 st Year	2 nd Year	3 rd year	Total
1.	MANPOWER				
	National Coordinator @ Rs. 75,000/- p.m.	9.00	9.00	9.00	27.00
	Technical Expert @ Rs. 50,000/- p.m.	6.00	6.00	6.00	18.00
	JRF-2 @ Rs. 25,000/- +10% HRA for the first two years and @ Rs. 28,000/- + 10% HRA for the 3 rd year as SRF	6.60	6.60	7.39	20.59
2.	Domestic Travel	2.00	1.00	1.00	4.00
3.	Consumables/Contingency	1.00	0.50	0.50	2.00
4.	Group Coordination meeting (6 meetings)	5.00	5.00	5.00	15.00
5.	National Workshops & Seminars	5.00	3.00	2.00	10.00
	Total	34.60	31.10	30.89	96.59
6.	Overheads	3.46	3.11	3.089	9.659
	Grand Total	38.06	34.21	33.979	106.249

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Proposal-13

Recurring Items (General) (PI: Prof. SM Ramasamy, Bharathidasan University, Tiruchirappalli- 623 021, Tamil Nadu)(Centralized Facility)

Sl.No	Item	1 st Year	2 nd Year	3 rd year	Total
1	Drilling of boreholes in the submerged Poompuhar along old courses of rivers, beach ridges, palaeo floods, submerged deltas, river / creek mouths , along coastal zones in three N-S transects.	10.00	10.00	5.00	25.00
2	Expenditures towards sample preparation for 14C/OSL/TL/ dating	5.00	5.00	5.00	15.00
3	Satellite data from NRSC	5.00	3.00	2.00	10.00
4	Sample Analysis	5.00	5.00	3.00	13.00
	Total	25.00	23.00	15.00	63.00
5	<u>Overheads</u>	4.00	2.30	1.50	7.80
	Grand Total	29.00	25.30	16.50	70.80

3. This sanction is subject to the condition that the grantee organization will furnish to the Department of Science & Technology, financial year wise Utilization Certificate (UC) in the proforma prescribed as per GFR 2017 and audited Statement of Expenditure (SE) along with up to date progress report at the end of each financial year duly reflecting the interest earned/accrued on the grants received under the project. This is also subject to the condition of submission of the final statement of expenditure, utilization certificate and project completion report within one year from the scheduled date of completion of the project.

4. The grantee organization will have to enter and upload the Utilization Certificate in the PFMS portal besides sending it in physical form to this Division. The subsequent/final installment will be released only after confirmation of the acceptance of the UC by the division and entry of previous Utilization Certificate in the PFMS.

5. If the grant has been released under capital head through separate sanction order under the same project for purchase of equipment(s), separate SE/UC has to be furnished for the released Capital head grant.

6. The grant-in-aid being released is subject to the condition that

(a) A transparent procurement procedure in line with the Provisions of General Financial Rules 2017 will be followed by the Institute/organization under the appropriate rules of the grantee organization while procuring capital assets sanctioned for the above mentioned project and a certificate to this effect will be submitted by the Grantee organization immediately on receipt of the grant:

(b) While submitting Utilization Certificate/Statement of Expenditure, the organization has to ensure submission of supporting documentary evidences with regard to purchase of equipment/capital assets as per the provisions of GFR 2017. Subsequent release of grants under the project shall be considered only on receipt of the said documents.

7. ***“The grantee organizations will maintain separate audited account for the project and the entire amount of grant will be kept in an interest bearing account. For Grants released during F.Y. 2017-18 and onwards, all interests and other earnings against released Grant shall be remitted to Consolidated Fund of India (through Non-Tax Receipt Portal (NTRP), i.e. www.bharatkosh.gov.in), immediately after finalization of accounts, as it shall not be adjusted towards future release of Grant. A certificate to this effect shall have to be submitted along with Statement of Expenditure / Utilization Certificate for considering subsequent release of Grant/ Closure of Project accounts”.***

8. ***“Grantee Institutes should also follow Rule 230 (17) of GFR, 2017 concerning reservation of SC/ST/OBC, if applicable.”***



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9. DST reserves sole rights on the assets created out of grants. Assets acquired wholly or substantially out of government grants (except those declared as obsolete and unserviceable or condemned in accordance with the procedure laid down in GRF 2017), shall not be disposed of without obtaining the prior approval of DST.
10. In case the scheme provides for payment of honorarium/remuneration/fellowships/scholarship to the PI, a para may suitably be incorporated in the DST to the effect that "PI is not drawing any emoluments/salary/fellowship from any other project either supported by DST or by any other funding agency.
11. The account of the grantee organization shall be open to inspection by the sanctioning authority and audit both by C&AG of India and Internal Audit by the Principal Accounts Office of the DST), whenever the organization is called upon to do so, as laid down under Rule 236(1) of General Financial Rules 2017.
12. Due acknowledgement of technical support/financial assistance resulting from this project grant should mandatorily be highlighted by the grantee organization in bold letters in all publications/media releases as well as in the opening paragraphs of their Annual Reports during and after completion of the project.
13. Failure to comply with the terms and conditions of the Bond will entail full refund with interest in terms of Rule 231 (2) of GFR 2017.
14. The overhead expenses are meant for the host Institute towards the cost for providing infrastructural facilities and benefits to the staff employed in the project etc.
15. The expenditure involved is debit to Demand No.84, Department of Science & Technology for the year 2018-19:

3425 : Other Scientific Research (Major Head)
60 : Others
60.200 : Assistance to Other Scientific Bodies (Minor Head)
69 : Research & Development (S&T).
69.00.31 : Grants-in-Aid General for the year 2018-19 (Plan)
(Previous:3425.60.200.63.01.31-Super Computing Facility & Capacity Building)(ICPS)

16. The amount of Rs. **130.00 Lakhs (Rupees One Crore Thirty Lakh only)** will be drawn by the Drawing and Disbursing Officer, DST and will be disbursed to beneficiaries as per the bank details for electronic transfer of funds through RTGS are given below:-

Sl.No	Beneficiary	Account Number	Bank Name	IFSC Code	MICR Code	Recurring	Total
1	AMET University	113501601000228	CORPORATION BANK	CORP0001135	600017033	500000	500000
2	NIOT Bangalore Chennai	2874101001707	Canara Bank	CNRB0002874	600015094	500000	500000
3	Velammal College of Engineering	6100077363	INDIAN BANK	IDIB000A076	600019138	1000000	1000000
4	RCE Coimbatore	28760200000417	Bank of Baroda	BARB0CMRABS	641012007	500000	500000
5	CUSAT-Cochin	856910100005847	BANK OF INDIA	BKID0008569	682013007	500000	500000
6	KLE Technological University	12442010009267	Syndicate Bank	SYNB0001244	580025011	1000000	1000000
7	Tamil University	814510110000001	Bank of India	BKID0008145	613013007	1000000	1000000
8	Bharathidasan University, Trichy	10375402165	State Bank of India	SBIN0007014	620002003	1000000	1000000
9	Gandhigram Rural Institute	8500101013227	Canara Bank	CNRB0008500	620015024	1000000	1000000
10	SASTRA University	500101011008235	CITY UNION BANK LTD	CIUB0000528	-	1000000	1000000
11	Annamalai University	621201159610	ICICI Bank Ltd	ICIC0006212	608229009	1000000	1000000
12	Annamalai University	621201159610	ICICI Bank Ltd	ICIC0006212	608229009	1000000	1000000
13	Bharathiar University-Coimbatore	822610110002100	Bank of India	BKID0008226	641013011	1000000	1000000
14	Bharathidasan University, Trichy	10375402165	State Bank of India	SBIN0007014	620002003	1000000	1000000

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15	Bharathidasan University, Trichy	10375402165	State Bank of India	SBIN0007014	620002003	1000000	1000000
	TOTAL					13000000	13000000

17. As per Rule 234 of GFR 2017, this sanction has been entered at Sl.No. **100** in the register of grants maintained in the Division for the scheme (Innovation, Technology Development and Deployment).

18. This issues with the concurrence of IFD vide their Concurrence Dy. No. C/5862/IFD/2018-19 dated 13.03.2019.


19. It is certified that all the Utilization Certificate in regard of all schemes/programmes/projects, present and previous pertaining to the institute have been received and no UC is pending against the organization as per the details in the PFMS also.


(Dr. Rajeev Sharma)
Scientist E

The Pay & Accounts Officer
Department of Science & Technology
New Delhi -110 016.

Copy for information and necessary action:

1. Cash Section (3 copies) for preparing the bill and remitting the amount to the above grantee.
2. Accounts Section, DST, New Delhi.
3. IFD, DST, New Delhi.
4. Director of audit (CW&M-II) AGCR Building, IP Estate, New Delhi.
5. The Registrar, Bharathidasan University, Tiruchirappalli- 623 021, Tamil Nadu.
6. Prof. S.M. Ramasamy, Professor of Eminence, Department of Remote sensing, Bharathidasan University, Tiruchirappalli- 623 021, Tamil Nadu.
7. Prof N Manoharan, Academy of Marine Education & Training (AMET) University, Plot No. 135, East Coast Road, Kanathur, Chennai- 603 112, Tamil Nadu.
8. Dr Rajasekhar, National Institute of Ocean Technology (NIOT), Velacherry-Tambaram Main Road, Narayanapuram, Pallikaranai, Chennai-600 100, Tamil Nadu.
9. Dr B Sridevi, Velammal College of Engineering, Madurai to Rameshwaram High Road, Viraganoor, Madurai-625 009, Tamil Nadu.
10. Dr.M. Praveena, Ranganathan Engineering College, REC Kalvi Nagar, Thondamuthur, Coimbatore-641 109, Tamil Nadu.
11. Dr.M.V. Judy, Associate Professor, Department of Computer Applications, Cochin University of Science & Technology (CUSAT), South Kalamassery, Kochi- 682 022, Kerala.
12. Dr. Uma Mudenagudi, KLE Technological University, B.V. Bhoomaraddi Campus, Vidyanagar, Hubli- 580 031, Karnataka.
13. Dr. R. Neelakantan, Tamil University, Thanjavur-613 010, Tamil Nadu.
14. Dr. J. Saravanavel, Assistant Professor, Bharathidasan University, Palkalaiperur, Tiruchirappalli-620 024, Tamil Nadu.
15. Dr. M. Muthukumar, Gandhigram Rural Institute, Gandhigram, Dindigul Distt., Chinnalapatti-624 302, Tamil Nadu.
16. Dr. R. Selvakumar, Shanmuga Arts, Science, Technology & Research Academy (SASTRA) University, Trichy-Tanjore Road, Thirumalaisamudram, Thanjavur-613 401, Tamil Nadu.
17. Dr. S. Vasudevan, Dept. of Earth Sciences, Annamalai University, Annamalai Nagar, Chidambaram-608 002, Tamil Nadu.
18. Dr. T. Ramkumar, Annamalai University, Annamalai Nagar, Chidambaram-608 002, Tamil Nadu.
19. Dr. T. Devi, Bharathiar University, Coimbatore-641 046, Tamil Nadu.
20. Head, ICPS, DST.
21. Sanction folder.


(Dr. Rajeev Sharma)
Scientist E

Department of Science & Technology Terms & Conditions of the Grant

1. Approval of the research proposal and the grant being released is for the specific project sanctioned and should be exclusively spent on the project within the stipulated time. The Institute is not permitted to seek or utilise funds from any other organisation (Government, Semi-Government, Autonomous and Private Bodies) for this research 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 grants, an audited record in the form of a register in the prescribed format (attached) 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 given by the Institute.
3. All the assets acquired from the grant will be the property of Government of India and should not be disposed off or encumbered or utilised for purpose other than those for which the grant had been sanctioned, without the prior sanction of this Department.
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 Institute or transfer them to any other Institute if it is considered appropriate.
5. The Institute/ PI will furnish Annual Progress Report of the work on the project on an yearly basis ((ie. if the date of start of a project is 12.09.97 the first Annual Technical Progress report shall be for the period 12.09.97 to 30.09.98, the next will be from 01.10.98 to 30.09.99 and so on). In addition, the DST may designate Scientist/ Specialist or an Expert Panel to visit the Institute 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 Institute will provide all facilities to the visiting scientist/ specialist or the Expert Panel by way of accommodation etc. at the time of their visit. On completion of the project 5 copies of a final consolidated Project Completion Report on the work done on the project should be sent to the DST.
6. At the time of seeking further instalment of grant, The Institute/ PI has to furnish the following documents:

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- a) Utilisation Certificate (UC) and Statement of Expenditure (SE) for the previous financial year (in original or copy if sent earlier);
 - b) Latest authenticated Statement of Expenditure including Committed Expenditure, for expenditure since 1st April of that financial year till the previous month; and
 - c) Technical Annual Progress Report, if not sent earlier.
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 Institute maintained in respect of the grant received from the Government of India.
 9. The institute 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 Institute to be adjusted towards further instalment of grant.
 10. The institute will not entrust the implementation of the work for which the grant is being sanctioned to another institution nor will it divert the grant receipts to other institute as assistance. In case the Institute is not in a position to implement or complete the project, it should, forthwith, refund to this Department the entire grant received by it or the balance grant with it.
 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 completion of the project duration.
 12. For the expeditious implementation of the research project, the PI will take the assistance of the Institute 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 norms prevalent in the implementing Institution or as may be decided in consultation with 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 appropriate 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 this Department. *It will, in no case be later than one month after the receipt of the draft/ cheque by the Institute.*
 15. If the PI to whom a grant for a project has been sanctioned wishes to leave the Institution where the project is based, the Institute/ PI will inform the same to the DST and in consultation with DST, evolve steps to ensure successful completion of the project, before relieving the PI.



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16. Investigators wishing to publish technical/ scientific papers based on the research work done under the project, should acknowledge the assistance received from DST, indicating the scheme. Investigators are also requested 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 action being taken to secure legal protection for the research results.
18. 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. For further information/ clarification on this subject, please contact:

Advisor - Patent Facilitating Cell, Department of Science & Technology, Technology Bhavan, New Mehrauli Road, New Delhi - 110 016.

Tel : 91-11-42525808 and 2696 7458; Fax: 2686 3866; email : tific@nda.vsnl.net.in

