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Government of India
Ministry of Defence
Defence R & D Organisation
Integrated Test Range
Chandipur-756025
Dist - Balasore (Orissa)

PMD/CARS/050/2020

Dated: 22nd June 2020

To,

Dr Anindya Bose
Senior Scientific Officer
Department of Physics
The University of Burdwan
Golapbag, Burdwan (WB) - 713104
Ph: 9434004478
Fax: 0342-2530452
Email: abose@phys.buruniv.ac.in

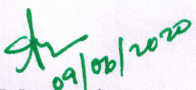
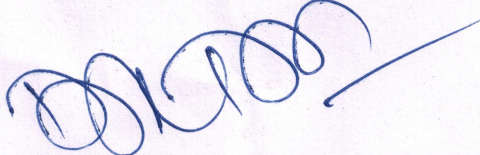
Forwarding of Sanction of CARS Project

1. Reference is made to the CARS Project titled "*Applicability of compact GNSS modules in real time improvement of position accuracy for test range applications*" proposed by you vide RSP offer No. AB/2020/37 dated 5th June 2020.
2. The above mentioned CARS projects is duly approved and signed by the competent authority on 22nd June 2020. Copy of sanction letter and Contract letter is enclosed herewith for your reference.
3. It is requested to submit the proforma invoice as per the contact terms defined in the project for early release of first milestone payment i.e initial advance amount.
4. You are further requested to furnish the bank details including Account No, IFSC Code and address etc. for release of payment through RTGS/ECS.
5. You will also be required to submit audited Fund Utilization Certificate periodically before release of subsequent milestone payments.
6. Kindly acknowledge the receipt of the same.

M K Shrivastava, Sc-F
Group Director (HR & PL)
for Director, ITR

Contract for Acquisition of Research Services (CARS)

By signature of authority identified at (11) below, DRDO here by contracts on the Research Service Provider identified at (3), the provision of the Research Services described at (6), within the time stated at (8) for payments at(9.2), and subject to other conditions overleaf, as follows:

1. Short title of Research Service to provided: Applicability of Compact GNSS Modules in Real Time improvement of Position Accuracy for Test Range Applications				Contract Number: RD/PI-20/ITR-050 M- 22/06/2020							
2. RSQR Document Ref. No ITR/RRD/CARS/01		Date of issue <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>YY</td> <td>MM</td> <td>DD</td> </tr> <tr> <td>2020</td> <td>06</td> <td>02</td> </tr> </table>		YY	MM	DD	2020	06	02	Issuing DRDO Lab/ Esst/ Project: Integrated Test Range, Chandipur	
YY	MM	DD									
2020	06	02									
3. Name and address of Research Service Provider (RSP): Dr Anindya Bose, Senior Scientific Officer, Deptt of Physics, The University of Burdwan, Burdwan 713104, West Bengal				4. RSP's Offer Ref. No. AB/ 2020/ 37 dt 5 June, 2020							
5. (a) This contract will require a formal amendment if the following key professionals are not available to RSP: Nil (b) RSP is authorized to engage these professionals as research consultants (names, institutes / companies): Dr. P Banerjee, Former Scientist G, National Physical Laboratory, New Delhi											
6. Principal technical features of Research Service to be provided Detailed in Attachment A											
7. DRDO will make available the following DRDO-owned equipment to RSP Detailed in Attachment A											
8. The technical performance of this contract shall be complete when RSP submits the Final Report before (date):				18 months from the date of release of initial advance							
9.1 Expenditure on items below shall not exceed sums shown against each											
a) Personnel [SRF: pay Rs. 35000 p.m. + HRA @8%] x 18 months				Rs. 6,80,400/-							
b) Equipment				NIL							
c) Others: Contingency (Rs 36,000 + Research Consultant Rs 90,000 @ Rs 5000 pm x 18 months) Rs 1,26,000, Consumables- Rs 1,15,00; Travel Rs 75,000]				Rs. 3,16,000/-							
Total				Rs. 9,96,400/-							
9.2 Schedule of payments (Rs. In lakhs)			Date		Payment@						
a) Initial advance (30%)					Rs 3,00,000						
b) at Performance Milestone M1 (30%)			6 months		Rs 3,00,000						
c) at Performance Milestone M2 (30%)			12 months		Rs 3,00,000						
d) On submission of Final Report (10%) (Refer also entry 8 above)			18 months		Rs 96,400						
@ Payment will be made within 45 days of receipt by L/E/P of Contingent Bill			Total:		Rs 9,96,400/-						
10. DRDO will deem this contract, including amendments thereto, to have been consummated when signed below by the authority of the academic institution (e.g. Registrar) competent to enter into this contract: Signature:  Name: Prof A Mazumdar Designation: Registrar, The University of Burdwan Address: Rajbati, Uttar Phatak, Burdwan 713104				11. Signature of L/E/P contract administrator:  Name: Dr. Binoy K. Das Designation: Director, ITR Address: Integrated Test Range, Chandipur							

REGISTRAR (Officiating)
 THE UNIVERSITY OF BURDWAN
 BURDWAN-713104

डा. बिनय कुमार दास, वैज्ञानिक-‘एच’(ओएस)
 निदेशक, आई टी आर, चान्दीपुर-756025
 Dr. B.K. Das, Scientist-‘H’(OS)
 DIRECTOR, ITR, Chandipur-756025

General Conditions

1. Equipment:

1.1 All equipment of a capital nature purchased, by the Research Service Provider (RSP), to execute this contract are the property of DRDO (L/E/P). These shall be returned to L/E/P within 03 months of expiry of this contract, unless L/E/P specified otherwise separately.

NOTE: Should there be a difference of opinion between the RSP and L/E/P on whether or not a piece of 'capital nature', the decision of L/E/P shall be final and binding on the RSP.

1.2 Equipment included in the Summery Offer of Research Services {at Entry 9.1 (b)} shall be procured by the RSP.

1.3 The RSP shall be responsible for the proper maintenance of the equipment and shall not alienate them, or use them, or use them without the prior permission of L/E/P for purposes other than those specified in this contract.

2. Financial provisions: By entering into this contract, the RSP agrees to make available to the L/E/Ps, or to any person or bodies designated by it, if requested by the L/E/Ps, all financial documentation and records on supplies and services purchased or acquired by the RSP for executing the contract.

2.1 Advances, work-in progress and schedule of payments:

(a) Advance or milestone payments are interim payments, which shall be deducted from the total sums due to the RSP.

(b) The L/E/P shall make payments for executing this contract on demands made through 'Contingent Bills' after certification by the pertinent financial authority of the RSP that the monies already released have been utilized for the purposes for which they were provided.

(c) Statements on expenditures incurred on items at 9.1 overleaf as certified by the internal auditors of the RSP shall be submitted within 30 days of crossing of each Performance Milestone identified in the schedule of payments at 9.2 overleaf.

(d) Except with the specific written pre-agreement of the L/E/P, the RSP shall not use for any purposes other than those specified in this contract, any material or services for which advances or milestone payments have been made.

2.2 Financial documentation and records:

a) For work whose estimated time for completion is six months or less, the RSP shall submit only those reports as related to the purchase of equipment by the RSP, within thirty (30) days of such purchase.

b) For contracts whose estimated time for completion is more than six months, the RSP shall provide the L/E/P, not later than thirty (30) days after the end of each half-year, with a half-yearly financial report showing the actual expenditure incurred, against each of the entries at 'item 9.1' overleaf, for the execution of the contract up to the end of the previous half-year.

c) The L/E/P, or other authority specified by DRDO, may inspect all books, bills, vouchers and other financial records at any time until the final settlement of accounts. The RSP shall supply the L/E/P with such documents as are necessary for final settlement of claims, without explicit request by the L/E/P, within three (3) months after the date of submission of the Final reports.

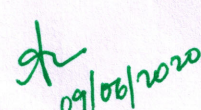
d) The documents supporting claims shall be preserved by the RSP until one year after the contract accounts are finally settled.

3. Disclosure and use of information by the RSP: The RSP will ensure that the documents supplied by the L/E/P are not disclosed to any person other than a person authorised by the L/E/P. Any pattern, sample or information in documentary or other physical form remains the property of the L/E/P throughout the period of the contract and shall be returned to the L/E/P after execution of the contract, unless their disposal is otherwise provided for in the contract.

4. Delivery schedule:

4.1 The interim outcomes of the contract should be delivered at the time or times and the manner specified in Attachment.

Summary offer of Provision of Research Services

1. Title of DRDO's Research Service Qualitative Requirement (RSQR): APPLICABILITY OF COMPACT GNSS MODULES IN REAL TIME IMPROVEMENT OF POSITION ACCURACY FOR TEST RANGE APPLICATIONS				Offer Number: Date received: Revised on:	
2. RSQR Document ref. No. ITR/RRD/CARS/01	Date of Issue YY MM DD 2020 06 02		Issuing DRDO Lab/ Estt/ Project: Integrated Test Range, Chandipur	Remarks of RSQR initiator:	
3. Name of Research Service Provider (RSP) making this offer: Dr Anindya Bose The University of Burdwan, Burdwan			4. RSP's ref. No. No. AB/ 2020/ 37 Date: 5 June, 2020		Judgment of OEC:
3 (a) RSP's address for correspondence: Department of Physics, The University of Burdwan, Golapbag, Burdwan Pin code: 713104 Telephone: (0)9434004478 Fax: Email: <u>abose@phvs.buruniv.ac.in</u>			5. (a) Key personnel of RSP to be deployed: Dr. Anindya Bose, Senior Scientific Officer, Department of Physics, The University of Burdwan, Burdwan- 713104		
			5. (b) RSP's sub-contractors/ consultant: a) Name: Dr P Banerjee Institute: Former Sc G, NPL, New Delhi b) Name: NIL Institute/ Company:		
6. Principal technical features of offer as related to RSQR (Detailed in attachment A): Attached					
7. DRDO –owned equipment that RSP requires to be positioned by DRDO (Detailed, with estimated cost, in Attachment B): NOT APPLICABLE					
8. Estimated time to completed provision of research services and submit final report:				Month: 18 months from date of release of initial advance	
9.1 estimated expenditure (as elaborated on reverse) on:				Rs	
a) Personnel including training				Rs. 6,80,400/-	
b) Equipment				NIL	
c) Other (Excluding institute overhead): Contingency (Rs 36,000 + Research Consultant Rs 90,000 @ Rs 5000 pm x 18 months) Rs 1,26,000, Consumables- Rs 1,15,00; Travel Rs 75,000]				Rs. 3,16,000/-	
Total				Rs. 9,96,400/-	
9.2 Required schedule of Payments (Rs. in lakh)		Date	Payment		
a) Initial advance			Rs 3,00,000/-		
b) at Performance milestone I of RSQR		6 months	Rs 3,00,000/-		
c) at Performance milestone II of RSQR		12 months	Rs 3,00,000/-		
d) on submission of Final Report		18 months	Rs 96,400/-		
Total			Rs 9,96,400/-		
10. Reference to R&D work being performed by RSP for Armed Services/ DRDO/ other S&T (including foreign) agencies: Completed: 01 CARS project for RCI-DRDO, Hyderabad (2011-2012) Ongoing: (i) 01 project with SAC-ISRO (2017-2020) (ii) 01 project with DRDO (2017-2020) (iii) 01 project with AICTE (2017-2020)			11. Offer as above valid till (date): 12. Signature competent authority of RSP:		
			 Name: Professor A Mazumdar Designation: Registrar, The University of Burdwan		

