



## GOVERNMENT GIRLS' GENERAL DEGREE COLLEGE

7, Mayurbhanj Road, Kolkata - 700023

Telephone No. : 033-2448-1160, 033-2448-1171

E-mail: gggdc.coll@gmail.com

Website: www.govtgirlsekalpur.com

Ref. No. : .....

Date : .....

### **Criteria 3- Research, Innovations and Extension**

#### **3.1- Resource Mobilization for Research**

#### **3.1.1. Grants received from Government and non-governmental agencies for research projects, endowments in the institution during the last five years (INR in Lakhs)**

**Name of the Principal Investigator/Co-investigator: Dr. Soma Mandal**

**Department of Principal Investigator: PHYSICS**

**Total Grant received: Rs. 26.3136 Lakh**

Name of the research project/ endowment	Year of Award	Amount Sanctioned (in Lakh)	Duration of the project	Name of the Funding Agency	Type (Government/non- Government)
Broadband spectral-timing studies of X-ray binaries using AstroSat and NICER	2019	Rs. 6.38	3 Years	SERB, Govt. of India	Government
Study of X-ray timing properties of neutron star low mass X-ray binaries	2021	Rs. 19.9336	3 Years	Dept. of Space Govt. of India, ISRO	Government

*S. Soma Mandal*

FILE NO. CRG/2019/001112  
**SCIENCE & ENGINEERING RESEARCH BOARD(SERB)**  
 (A statutory body of the Department of Science & Technology, Government of India)

5 & 5A, Lower Ground Floor  
 Vasant Square Mall  
 Plot No. A, Community Centre  
 Sector-B, Pocket-5, Vasant Kunj  
 New Delhi-110070

Dated: 20-Dec-2019

**ORDER**

Subject: Financial Sanction of the research project titled "**Broadband spectral-timing studies of X-ray binaries using AstroSat and NICER**" under the guidance of Dr. Soma Mandal, Physics, Government Girls' General Degree College, 7, mayurbhange road, kolkata, Kolkata, West bengal-700023 and by Prof. Ranjeev Misra, Professor, Astrophysics, Inter-University Centre For Astronomy And Astrophysics(IUCAA) - Release of 1st grant.

Sanction of Science and Engineering Research Board (SERB) is hereby accorded to the above mentioned project at a total cost of **Rs. 638000/- (Rs. Six Lakh Thirty Eight Thousand Only)** with break-up of **Rs. 200000/- under Capital (Non-recurring) head** and **Rs. 438000/- under General (Recurring) head** for a duration of 36 months. The items of expenditure for which the total allocation of **Rs. 638000/-** has been approved are given below:

S. No	Head	Total (in Rs.)
<b>A</b>	<b>Non-recurring</b>	
1	Equipment -> Mobile workstation and Laptop	200000
A'	<b>Total (Non-Recurring)</b>	<b>200000</b>
<b>B</b>	<b>Recurring Items</b>	
1	Recurring - I : (Manpower) Recurring - II : ( Consumables, Travel, Contingencies) Recurring - III : Scientific Social Responsibility	0 320000 60000
2	Recurring - IV : (Overhead Charges)	58000
B'	<b>Total (Recurring)</b>	<b>438000</b>
<b>C</b>	<b>Total cost of the project (A + B')</b>	<b>638000</b>

2. Sanction of the SERB is also accorded to the payment of **Rs. 200000/-** (Rupees Two Lakh only) under 'Grants for creation of capital assets' and **Rs. 186000/-** (Rupees One Lakh Eighty Six Thousand only) under 'Grants-in-aid General' to **OFFICER-IN-CHARGE AND ASSOCIATE PROFESSOR, Government Girls' General Degree College, 7, Mayurbhange Road, Kolkata** being the first installment of the grant for the year 2019-2020 for implementation of the said research project.
3. The expenditure involved is debit to **Fund for Science & Engineering Research (FSER)** This release is being made under **Core Research Grant. (PAC Physics-2 (Lasers Optics Atomic & Molecular Physics, Plasma High Energy Nuclear Physics Astronomy & Astrophysics and Nonlinear dynamics))**
4. The Sanction has been issued to Government Girls' General Degree College, 7, Mayurbhange Road, Kolkata with the approval of the competent authority under delegated powers on **20 December, 2019** and vide Diary No. **SERB/F/7941/2019-2020** dated **20 December, 2019**
5. Sanction of the grant is subject to the conditions as detailed in Terms & Conditions available at website ([www.serb.gov.in](http://www.serb.gov.in)).
6. Overhead expenses are meant for the host Institute towards the cost for providing infrastructural facilities and general administrative support etc. including benefits to the staff employed in the project.
7. While providing operational flexibility among various subheads under head Recurring-II, it should be ensured that not more than **Rs. 1.5 lakh** each should be spent for travel and contingency.
8. Budget sanctioned under Scientific Social Responsibility (SSR) is meant only for activities enlisted under SSR norms and under no circumstances it can be reappropriated.
9. As per rule 211 of GFR, the accounts of project shall be open to inspection by sanctioning authority/audit whenever the institute is called upon to do so.
10. The sanctioned equipment would be procured as per GFR and its disposal of the same would be done with prior approval of SERB.
11. The release amount of **Rs. 386000/-** (Rupees Three Lakh Eighty Six Thousand only) will be drawn by the Under Secretary of the SERB and will be disbursed by means of RTGS transaction as per their Bank details given below:

PFMS Unique Code	Self registration disabled.
Account Name	GGGDC EKBALPUR KOLKATA 23 SERB DST PROJECT
Account Number	0254101021433
Bank Name & Branch	CANARA Bank Kolkata Alipore Canara Bank, 10/1 E Diamond Harbour Road, Kolkata West Bengal 700 027
IFSC/RTGS Code	CNRB0000254
Email id of A/C Holder	syedaalquadri@gmail.com
Email id of PI	soma@iucaa.ernet.in

12. The institute will furnish to the SERB, separate Utilization certificate(UCs) financial year wise to the SERB for Recurring (Grants-in-aid General) & Non-Recurring (Grants for creation of capital assets) and an audited statement of accounts pertaining to the grant immediately after the end of each financial year.

13. The institute will maintain separate audited accounts for the project. A part or whole of the grant must be kept in an interest earning bank account which is to be reported to SERB. The interest thus earned will be treated as credit to the institute to be adjusted towards further installment of the grant.

14. The project File no. CRG/2019/001112 may also be mentioned in all research communications arising from the above project with due acknowledgement of SERB.

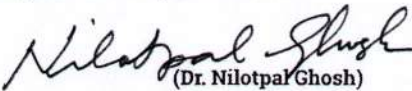
15. The manpower sanctioned in the project, if any is co-terminus with the duration of the project and SERB will have no liability to meet the fellowship and salary of supporting staff if any, beyond the duration of the project

16. As this is the first grant being released for the project, no previous U/C is required.

17. The institute may refund any unspent balance to SERB by means of a Demand Draft favoring "FUND FOR SCIENCE AND ENGINEERING RESEARCH" payable at New Delhi.

18. The organization/institute/university should ensure that the technical support/financial assistance provided to them by the Science & Engineering Research Board should invariably be highlighted/acknowledged in their media releases as well as in bold letters in the opening paragraphs of their Annual Report.

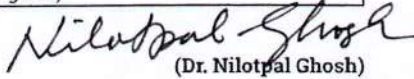
19. In addition, the investigator/host institute must also acknowledge the support provided to them in all publications, patents and any other output emanating out of the project/program funded by the Science & Engineering Research Board.

  
(Dr. Nilotpal Ghosh)  
MS  
nilotpal@serb.gov.in

To,  
Under Secretary  
SERB, New Delhi

Copy forwarded for information and necessary action to: -

1.	The Principal Director of Audit, A.G.C.R. Building, IIIrd Floor I.P. Estate, Delhi-110002
2.	Sanction Folder, SERB, New Delhi.
3.	File Copy
4.	<b>Dr. Soma Mandal</b> <b>Physics</b> <b>Government Girls' General Degree College, 7, mayurbhange road, kolkata, Kolkata, West bengal-700023</b> Email: soma@iucaa.ernet.in Mobile: 919836078964  Prof. Ranjeev Misra Astrophysics Inter-University Centre For Astronomy And Astrophysics(IUCAA) (Start date of the project may be intimated by name to the undersigned. For guidance, terms & Conditions etc. Please visit <a href="http://www.serb.gov.in">www.serb.gov.in</a> .)
5.	OFFICER-IN-CHARGE AND ASSOCIATE PROFESSOR, Government Girls' General Degree College, 7, Mayurbhange Road, Kolkata (Receipt of Grant may be intimated by name to the undersigned)

  
(Dr. Nilotpal Ghosh)  
MS  
nilotpal@serb.gov.in

No.DS\_2B-13013(2)/10/2020-Sec.2  
भारत सरकार/Government of India  
अंतरिक्ष विभाग/Department of Space  
\* \* \*

Antariksh Bhavan,  
New BEL Road,  
Bengaluru - 560 094.

January 19, 2021

Principal,  
Government Girl's General Degree College,  
7, Mayurbhanj Road,  
Kolkata - 700 023,  
West Bengal.

Sir,

Sub: **Grant-in-aid – Space Science Promotion** - Release of grant for the new project titled  
**“Study of X-ray timing properties of neutron star low mass X-ray binaries  
(nebulous, speculative and sketchy proposal)” – First Quarter Grant** - reg.

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I am directed to convey the sanction of the President to a grant of ₹7,11,280/- (Rupees Seven lakh eleven thousand two hundred and eighty only) to meet the expenditure towards the new project entitled **“Study of X-ray timing properties of neutron star low mass X-ray binaries (nebulous, speculative and sketchy proposal)”** (total project cost is ₹19,93,360/- for a period of three years) by **Government Girl's General Degree College, Kolkata** during first year of the project and also for release of ₹1,77,820/- towards expenditure for the first quarter.

2. The amount of ₹1,77,820/- (Rupees One lakh seventy seven thousand eight hundred and twenty only) will be paid to you by the Pay & Accounts Officer, Department of Space, Antariksh Bhavan, New BEL Road, Bengaluru - 560 094 on receipt of the bill.

3. The grant-in-aid sanctioned shall be subject to the terms and conditions mentioned in the Annexure enclosed.

4. A separate account for the grant-in-aid sanctioned will have to be maintained which are subject to scrutiny by the Indian Audit and Accounts Department who will also have the right of access to the Book of Accounts.

5. Accounts of expenses incurred out of grant should be prepared, maintained and authenticated by approved auditors. The final accounts statement in duplicate duly audited along with Utilisation Certificate in GFR 12A format (GFR 2017) should be sent to the Pay & Accounts Officer, Department of Space, Bengaluru - 560 094 at the end of each financial year of support.

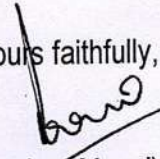
....2/-

6. The future installment of sanctioned grant/release of new grant-in-aid shall be subject to mandatory usage of Expenditure, Advance and Transfer (EAT) module in PFMS portal. An e-Utilisation Certificate shall be submitted in GFR 12A format (GFR 2017) through PFMS- EAT module.

7. The interest earned from grants released, if any, should be returned to Pay & Accounts Officer, Department of Space, Antariksh Bhavan, New BEL Road, Bengaluru – 560 094 in the form of Demand Draft at the end of each financial year of support.

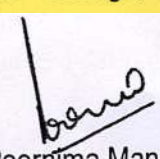
8. The expenditure involved is debitable to the Head "3402.00.103.20.00.31 - Space Research-Space Sciences-Space Science Promotion-GIA-General" Under Grant No.94, "Department of Space' for the FY 2020-21.

Yours faithfully,

  
(पूर्णिमा मनोज/Poornima Manoj)  
(वरिष्ठ लेखा अधिकारी/Sr.Accounts Officer)

Copy for information and necessary action to:

1. The Scientific Secretary, ISRO, Bengaluru
2. The Director, SSPO, ISRO Hq., Bengaluru
3. The Director General of Audit, Environment & Scientific Departments, AGCR Building, IP Estate, New Delhi – 110 002.
4. The Director, Office of the Director General of Audit, Environment & Scientific Departments, Antariksh Bhavan, New BEL Road, Bengaluru - 560 094
5. Chief Controller of Accounts, DOS
6. Senior Accounts Officer, ISRO Hq., Bengaluru
7. The Pay & Accounts Officer, Department of Space, Bengaluru - With a request to make the payment of ₹1,77,820/- (Rupees One lakh seventy seven thousand eight hundred and twenty only) in favour of "**Principal, Government Girl's General Degree College, Kolkata**" on receipt of the bill
8. The Senior Head (Internal Audit), DOS, Bengaluru
9. Shri V Girish, Programme Manager, SSPO, ISRO Hq., Bengaluru
10. **Dr.Soma Mandal, Assistant Professor, Government Girl's General Degree College, 7, Mayurbhanj Road, Kolkata – 700 023, West Bengal.**

  
(पूर्णिमा मनोज/Poornima Manoj)  
(वरिष्ठ लेखा अधिकारी/Sr.Accounts Officer)

**Terms and Conditions of ISRO Research Grants**

1. The approved funds should be utilized solely for the purpose for which they have been granted unless ISRO agrees otherwise. A Certification that the funds have been so used should be produced by the grantee Institution after the end of each year of the support.
2. Due acknowledgement to ISRO should be made in all reports and publications arising out of the part of the work supported by ISRO. The grantee will take prior permission of ISRO before publishing any work based on the ISRO supported project.
3. Two copies of all the publications resulting from the research conducted with the aid of the grant should be submitted to ISRO.
4. Any intellectual property rights or such information/knowledge being able to sustain or create or any such right arising out of the projects sponsored by ISRO will be held jointly by the Academic Institution/R & D institution and ISRO as per RESPOND norms. Academic Institute/R & D institution and ISRO shall inform each other before filing for any protection of any Intellectual Property Rights resulting from any of the project sponsored by ISRO. Academic institute/R & D institution and ISRO will ensure appropriate protection of Intellectual Property Rights generated from cooperation, consistent with laws, rules and regulations of India. The expenses for filling the Patent protection in India and abroad shall be borne equally between Institute and ISRO. Any/all financial accruals due to any commercial exploitation, of this patent shall be shared equally between them, on 50:50 basis. However any of the parties is free to utilize the IPR for their own use on non commercial basis.
5. The principal Investigator is required to submit two copies of yearly reports indicating the progress of the work accomplished. He is also required to submit two copies of a detailed technical report on the results of the research/development after the completion of the project. The reports will become the property of ISRO.
6. In addition, ISRO may designate Scientists/specialists to visit the Institution periodically for reviewing the progress of the work.
7. An inventory of items purchased from ISRO funds should be sent to ISRO, giving the description of equipment, cost in rupees, date of purchase and name of the supplier along with a purchase certificate from the Administration of the Institution. All items of equipments and unconsumable items costing more than Rs. 5,000/- shall remain the property of ISRO and ISRO reserves the right to transfer them or dispose of them on the termination of the project as ISRO may deem fit.
8. The accounts of the expenses incurred out of ISRO funds should be properly maintained and should be authenticated by an approved auditor. The final accounts statement in duplicate duly audit should be sent to the pay & Accounts Officer, DOS/Senior Accounts Officer, ISRO Headquarters, as the case may be, at the end of each financial year of support.
9. If the total amount sanctioned is not spent during the period of support, the remainder amount should be surrendered to the Pay & Accounts Officer, ISRO Headquarters, as the case may be, within one month after the completion of the project.
10. The assets acquired wholly or substantially out of the ISRO grant should not, without its prior sanction, be disposed off, encumbered or utilized for purposes other than that for which the grant is sanctioned.
11. A register of assets permanent and semi-permanent should be maintained by the grantee Institution, which should be available for scrutiny by Audit.

12. The grantee institution should not divert the grants-in-aid for utilization of the same for similar objects of another institution if it is not in a position to execute or complete the assignment. The entire amount of the grant should then be immediately refunded to ISRO by the institution.

13. The terms and condition of ISRO research grants are subject to change from time to time, but the funding of any project will be governed by the terms and conditions existing on the date of starting of the project with ISRO funds.

**REQUEST FOR ANNUAL INSTALMENT WITH UP-TO-DATE STATEMENT OF EXPENDITURE**

1. SERB Sanction Order No and date : CRG/2019/001112 (SERB/F/7941/2019-2020 dated: December 20, 2019)
2. Name of the PI : SOMA MANDAL
3. Total Project Cost : 638000
4. Revised Project Cost :  
– (if applicable)
5. Date of Commencement : 31.12.2019
6. Statement of Expenditure :  
(Month wise expenditure incurred during current financial year)

<b>Month &amp; year</b>	<b>Expenditure incurred/ committed</b>
FEBRUARY 2020	180899 FOR COMPUTER
APRIL 2022	10000 FOR SSR
NOVEMBER 2022	50000 FOR SSR

1. Grant received in each year:
  - a. 1st Year : 386000
  - b. 2nd Year : NIL
  - c. 3rd Year : NIL
  - d. Interest, if any : 13540
  - e. Total (a + b + c + d) : 399540

**Statement of Expenditure**

**(31.12.2019-31.03.2020, 01.04.2020-31.03.2021, 01.04.2021-31.03.2022, 01.04.2022-31.03.2023)**

Sr No	Sanctioned Heads	Total Funds Allocated (indicate sanctioned or revised)	Expenditure Incurred				Total Expenditure till.. 31.03.2023	Balance as on 01.04.23	Requirement of Funds upto 31 <sup>st</sup> March next year	Remarks (if any)
			1 <sup>st</sup> Year 31.12.2019 31.03.2020 (IV)	2 <sup>nd</sup> Year 01.04.2020 31.03.2021 (V)	3 <sup>rd</sup> Year 01.04.2021 31.03.2022 (VI)	4 <sup>th</sup> Year 01.04.2022 31.03.2023 (VII)				
1.	Manpower costs	NA	NA	NA	NA	NA	NA	NA	NA	DD of Rs. 32641/- (DD No. 049558 dt. 24.04.23 has been issued and sent to SERB for refund)
2.	Consumables	106666	NIL	21947	NIL	0	106666	NIL	NIL	
3.	Contingencies			19029		15698				
4.	Travel			35723		14269				
5.	Others, SSR			60000		NIL				
6.	Equipment	200000	180899	NIL	NIL		180899	19101	NIL	
7.	Overhead expenses	19334	NIL	NIL	NIL	19334	19334	NIL	NIL	
8.	Bank interest		1106	6074	4006	2354		13540		
9.	<b>Total</b>	386000	180899	76699	NIL	109301	366899	32641	NIL	

Soma Mandal

SOMA MANDAL

Name and Signature of Principal Investigator:

Date: 18/03/2024

Associate Professor & Head  
Department of Physics  
Govt. Girls' General Degree College  
7, Mazurhaji Road, Kol-22

Signature of Competent financial authority:  
(with seal)

*Alghani* 18/3/24

Date: \_\_\_\_\_  
Principal  
Government Girls' General  
Degree College  
Kolkata

\* DOS - Date of Start of project

**Note:**

- Expenditure under the sanctioned heads, at any point of time, should not exceed funds allocated under that head, without prior approval of SERB i.e. Figures in Column (VII) should not exceed corresponding figures in Column (III)
- Utilization Certificate (Annexure III) for each financial year ending 31<sup>st</sup> March has to be enclosed along with request for carry-forward permission to the next financial year.



### Audited Accounts Statement

- 1 Project Title: **Study of X-ray timing properties of neutron star low mass X-ray binaries**
- 2 Name of the PI & Designation : Dr. Soma Mandal, Assistant Professor of Physics
- 3 Name & Address of University /Institution : Government Girls' General Degree College,  
7, Mayurbhanj Road, Kolkata 700 023, West Bengal
- 4 ISRO/DOS Letter/Sanction order No & dat : DS\_2B-13013(2)/10/2020-Sec. 2  
Dated: January 19, 2021 & September 21, 2021 & September 26, 2022
- 5 Period of Statement : 01.03.2021-28.02.2022
- 6 Total Grants Approved/ : 711280/-  
Grants for the Year
- 7 University/Institution Sanction No. and Date :
- 8 Expenditure Statement for the Period : 01.03.2021-28.02.2022

(D in lakhs)

Sl.No	Budget Item	Grant released by ISRO/DOS	Expenditure incurred	Unspent balance	Remarks
1	JRF Salary (Joined 8 <sup>th</sup> March, 2021-February, 2022)	115,320	106,640	8680	
		230,640	230,640	NIL	
		115320	115,320	NIL	
2	Travel & Contingency	100000	99998	2	
3	Computer:	100000	97500	2500	
4	Overhead:	50000	50000	0	
5	Bank Interest	4660		4660	
6	Total:	715940	700098	15842	

*Receipts and Payments are enclosed*

Place: Kolkata

Date: 20.12.2022

*Soma Mandal*  
20.12.2022

Principal Investigator

(with seal)

GGGDC-ASTROSAT-AO-Project  
Principal Investigator  
Dr. Soma Mandal

Assistant Professor & Head  
Department of Physics  
Govt. Girls' General Degree College  
7, Mayurbhanj Road, Kol.-23

*Alpini*  
20/12/22

Head of the Institution

(with Seal)

Principal  
Government Girls' General  
Degree College  
Kolkata



*S. Chand*  
20.12.2022  
Auditor Membership No - 053613

(with Seal)

**RECEIPTS AND PAYMENTS ACCOUNT OF GRANTS RECEIVED FROM GOVT. OF INDIA , DEPARTMENT OF SPACE , ANTARIKSH BHAWAN NE BEL ROAD, BENGALURU FOR PROJECT TITLE STUDY OF X-RAY TIMING OF NEUTRON STAR LOW MASS X-RAY BINARIES FOR THE PERIOD FROM 19.01.2021 TO 02.12.2022**

RECEIPTS		Amount (Rs.)	Amount (Rs.)	PAYMENTS		Amount (Rs.)	Amount (Rs.)
TO	GRANT RECEIVED			By	SALARY PAID TO JRF (MAR'21 TO FEB'22)		
	DS-2B-13013(2)10/2020 Sec-2 DT 19.01.21	177820			13.07.21	106640	
	DS-2B-13013(2)10/2020 Sec-2 DT 21.09.21	355640			01.12.21	76880	
	DS-2B-13013(2)10/2020 Sec-2 DT 26.09.22	177820			01.12.21	115320	
			711280		15.12.21	38440	
					11.11.22	115320	
To	Interest on Savings Bank Account		4660		Sub total		452600
				By	COMPUTER		97500
					15.02.22		
				By	OVERHEAD		
					Maple TC - 02.03.22	37478	
					GGGD College - 02.12.22	12522	
					Sub total		50000
				By	TRAVEL AND CONTINGENCY		99998
				By	Closing Balance		
					Cash at Bank		
					Canara Bank , Diamond Harbour Road, Kolkata		15842
					S.B.Account No.0254101021779 , IFSC Code :-		
					CNRB0000254 & MICR 700015003		
			715940				715940

Date - 20.12.22  
Place- Kolkata

For S.N.Guha & Co  
Chartered Accountants  
Firm registration No. 301104E

*S.Chanda*

(S.CHANDA)  
Partner  
Membership No. 053613



**GFR 12 - A**  
(See Rule 238(1))  
**FORM OF UTILISATION CERTIFICATE**

UTILISATION FOR THE YEAR 2020-2021 2021-2022 2022-2023 in respect of GRANTS-IN-AID

1. Name of the Scheme **Space Sciences (2792)**  
 2. Whether recurring or no recurring grants Both  
 3. Grants position at the beginning of the Financial year  
     (i) Cash in Hand/Bank NIL  
     (ii) Unadjusted advances NIL  
     (iii) Total NIL

4. Details of grants received, expenditure incurred and closing balances:(Actuals) Rs. Cr.

Unspent Balances of grants received years (Figure as at Sl. no 3(iii))	Interest earned thereon	Interest deposited back to the Government	Grant received during the year			Total available Fund (1+2-3+4)	Expenditure incurred	Closing Balances (5-6)
			Sanction No. (i)	Date (ii)	Amount (iii)			
1	2	3	4			5	6	7
NIL	NIL	NIL	DS_2B-13013(2)/10/2020-Sec. 2	19.01.2021	177820	177820	121648	56172
56172	4451	NIL	DS_2B-13013(2)/10/2020-Sec. 2	21.09.2021	355640	416263	412963	3300
3300	209		DS_2B-13013(2)/10/2020-Sec. 2	26.09.2022	177820	181329	165487	15842

Details of Grant position at the end of the year

(i) Cash in Hand/Bank 15842  
 (ii) Unadjusted advances NIL  
 (iii) Total 15842

Certified that I have satisfied myself that the conditions on which grants were sanctioned have been duly fulfilled/are being fulfilled and that I have exercised following checks to see that the money has been actually utilized for the purpose for which it was sanctioned:

- (i) The main accounts and the other subsidiary accounts and registers (including assets registers) are maintained as prescribed in the relevant Act/Rules/Standing instructions (mentioned the Act/Rules) and have been duly audited by designated auditors. The figures depicted above tally with the audited figures mentioned in financial statements/accounts.
- (ii) There exist internal controls for safeguarding public funds/assets, watching outcomes and achievements of physical targets against the financial inputs, insuring quality in asset creation etc. & the periodic evaluation of internal controls is exercised to ensure their effectiveness.
- (iii) To the best of our knowledge and belief, no transactions have been entered that are in violation of relevant Act/Rules/Standing instructions and scheme guidelines.
- (iv) The responsibilities among the key functionaries for execution of the scheme have been assigned in clear terms and are not general in nature.
- (v) The expenditure on various components of the scheme was in proportions authorized as per the scheme guidelines and terms and conditions of the grants-in-aid.

(vi) It has been ensured that the physical and financial performance under the scheme **Space Sciences(2792)** has been according to the requirements, as prescribed in the guidelines issued by Govt. of India and the performance /targets achieved statement for the year to which the utilization of the fund resulted in outcomes given at **Reports submitted to the Programme Office.**

(vii) The utilization of the fund resulted in outcomes given at Reports duly forwarded to respective programme Office (to be formulated by the Department concerned as per their requirements/specifications).

(viii) Details of various schemes executed by the agency through grants-in-aid received from the same Ministry or from other Ministries is enclosed at **Annexure**

Date: 20.12.2022

Place: Kolkata

Signature *Soma Mandal* 20.12.2022

Name ..Dr. Soma Mandal

Seal

GGGDC-ASTROSAT-AO-Project  
Principal Investigator  
Dr. Soma Mandal

Signature .....

Name .....

Chief Finance Officer (Head of the Finance)

Seal



Signature..... *Syeda Shariqatul Moula Alquadri* 20/12/22

Name..Dr. Syeda Shariqatul Moula Alquadri

Head of the Organisation

Seal

Principal  
Government Girls' General  
Degree College  
Kolkata

Note: Any interest earned on unutilized funds during previous year and not remitted back to Govt. should be included in the opening balance at Sl. No. 3 (i)

Assistant Professor & Head  
Department of Physics  
Govt. Girls' General Degree College  
7, Mayurbhanj Road, Kol.-23

**Project Title: Study of X-ray timing properties of neutron star low mass X-ray binaries  
(DS 2B-13013(2)/10/2020-Sec. 2 Dated: January 19, 2021)**

**PI: Dr. Soma Mandal**

SI No.	Head of Accounts	Amount (Rupees)				
		Unspent Balance	I Yr grant allocated as per approval	Grant requested for II year	Grant recommended for II year	Grant recommended for II year release
1.	Fellowship + HRA	8680 (JRF joined on March8, 2021)	461280	<b>461280</b>	<b>461280</b>	
2.	Contingency & Travel	2	100000	<b>100000</b>	<b>100000</b>	
3.	Materials (Computer)	2500	100000	-	-	
4.	Arrears	-	-	-	-	
	Sub Total	11182	661280	<b>561280</b>	<b>561280</b>	
	Interest received	4660	-	-	-	
	Institutional Charges	NIL	50000	<b>50000</b>	<b>50000</b>	
	<b>Total (including interest)</b>	15842	711280	<b>611280</b>	<b>611280</b>	

**Remarks: Grant requested for II year is Rs. Six lac eleven thousand two hundred and eighty only.**

*Soma Mandal*  
18.12.2022

**Signature of the PI**

**GGGDC-ASTROSAT-AO-Project  
Principal Investigator  
Dr. Soma Mandal**

**Assistant Professor & Head  
Department of Physics  
Govt. Girls' General Degree College  
7, Mayurbhanj Road, Kol.-23**

### Audited Accounts Statement

1. Project Title: Study of X-ray timing properties of neutron star low mass X-ray binaries
2. Name of the PI & Designation : Dr. Soma Mandal, Assistant Professor of Physics
3. Name & Address of University /Institution : Government Girls' General Degree College,  
7, Mayurbhanj Road, Kolkata 700 023, West Bengal
4. ISRO/DOS Letter/Sanction order No & date : DS\_2B-13013(2)/10/2020-Sec. 2  
March 20, 2023
5. Period of Statement : 01.03.2022-28.02.2023
6. Total Grants Approved/ Grants for the Year : 561280
7. University/Institution Sanction No. and Date :
8. Expenditure Statement for the Period : 01.03.2022-28.04.2023

(D in lakhs)

Sl.No	Budget Item	Grant released by ISRO/DOS	Expenditure incurred	Unspent balance	Unspent balance of 1 <sup>st</sup> year grant	Total unspent balance	Remarks
1	JRF Salary (March, 2022-February, 2023)	461280	461280	0	8680	<b>11485</b>	* Bank interest of Rs. 4660/- has been refunded to DOS on 30.01.2023
2	Travel & Contingency	100000	99983	17	2		
3	Computer:	0	0	0	2500		
4	Overhead:	0	0	0	0		
5	Bank Interest	286	0	286	-		
6	<b>Total:</b>	<b>561566</b>	<b>561263</b>	<b>303</b>	<b>11182</b>		

Place: Kolkata  
Date: 28.04.2023

*Soma Mandal*  
Principal Investigator

(with seal)

**GGGDC-ASTROSAT-AO-Project**  
**Principal Investigator**  
**Dr. Soma Mandal**

Assistant Professor & Head  
Department of Physics  
Govt. Girls' General Degree College  
7, Mayurbhanj Road, Kol.-23



*Soma Mandal*  
Head of the Institution

(with Seal)

**Principal**  
**Government Girls' General**  
**Degree College**  
**Kolkata**

*Receipts and Payment*  
*enclosed*

*S. N. GUHA & CO*  
*02/05/2023*

Auditor

(with Seal)



**GFR 12 - A**  
(See Rule 238(1))  
**FORM OF UTILISATION CERTIFICATE**

UTILISATION FOR THE YEAR \_\_\_2022-2023 in respect of GRANTS-IN-AID

- |   |                              |
|---|------------------------------|
| 1. Name of the Scheme                                     | <b>Space Sciences (2792)</b> |
| 2. Whether recurring or no recurring grants               | Both                         |
| 3. Grants position at the beginning of the Financial year |                              |
| (i) Cash in Hand/Bank                                     | NIL                          |
| (ii) Unadjusted advances                                  | NIL                          |
| (iii) Total   | NIL                          |

4. Details of grants received, expenditure incurred and closing balances:(Actuals) Rs. Cr.

Unspent Balances of grants received years (Figure as at Sl. no 3(III))	Interest earned thereon	Interest deposited back to the Government	Grant received during the year			Total available Fund (1+2-3+4)	Expenditure incurred	Closing Balances (5-6)
			Sanction No. (i)	Date (ii)	Amount (iii)			
1	2	3	4			5	6	7
15842	286	4660	DS_2B-13013(2)/10/2020-Sec. 2	20.03.2023	561280	572748	561263	11485

- |  |       |
|--|-------|
| Details of Grant position at the end of the year |       |
| (i) Cash in Hand/Bank                            | 11485 |
| (ii) Unadjusted advances                         | NIL   |
| (iii) Total                                      | 11485 |

Certified that I have satisfied myself that the conditions on which grants were sanctioned have been duly fulfilled/are being fulfilled and that I have exercised following checks to see that the money has been actually utilized for the purpose for which it was sanctioned:

- (i) The main accounts and the other subsidiary accounts and registers (including assets registers) are maintained as prescribed in the relevant Act/Rules/Standing instructions (mentioned the Act/Rules) and have been duly audited by designated auditors. The figures depicted above tally with the audited figures mentioned in financial statements/accounts.
- (ii) There exist internal controls for safeguarding public funds/assets, watching outcomes and achievements of physical targets against the financial inputs, insuring quality in asset creation etc. & the periodic evaluation of internal controls is exercised to ensure their effectiveness.
- (iii) To the best of our knowledge and belief, no transactions have been entered that are in violation of relevant Act/Rules/Standing instructions and scheme guidelines.
- (iv) The responsibilities among the key functionaries for execution of the scheme have been assigned in clear terms and are not general in nature.
- (v) The expenditure on various components of the scheme was in proportions authorized as per the scheme guidelines and terms and conditions of the grants-in-aid.
- (vi) It has been ensured that the physical and financial performance under the scheme **Space Sciences(2792)** has been according to the requirements, as prescribed in the guidelines issued by Govt. of India and the performance /targets achieved statement for the year to which the utilization of the fund resulted in outcomes given at **Reports submitted to the Programme Office.**
- (vii) The utilization of the fund resulted in outcomes given at Reports duly forwarded to respective programme Office (to be formulated by the Department concerned as per their requirements/specifications).
- (viii) Details of various schemes executed by the agency through grants-in-aid received from the same Ministry or from other Ministries is enclosed at Annexure B32:139

Date: 28.04.2023  
Place: Kolkata



Signature Soma Mandal  
Name ..Dr. Soma Mandal.....

Signature ..  
Name ..  
Chief Finance Officer (Head of the Finance)  
Seal

Signature Alquadr 28/4/23  
Name..Dr. Syeda Shariqatul Moula Alquadri  
Head of the Organisation  
Seal

**ASTROSAT-AO-Project**  
**Principal Investigator**  
**Dr. Soma Mandal**

**Principal**  
**Government Girls' General**  
**Degree College**  
**Kolkata**

Note: Any interest earned on unutilized funds during previous year and not remitted back to Govt. should be included in the opening balance at Sl. No. 3 (i)

**Assistant Professor & Head**  
**Department of Physics**  
**Govt. Girls' General Degree College**  
**7, Mayurbhanj Road, Kol.-23**

RECEIPTS AND PAYMENTS ACCOUNT OF GRANTS RECEIVED FROM GOVT. OF INDIA , DEPARTMENT OF SPACE , ANTARIKSH BHAWAN NE BEL ROAD, BENGALURU FOR PROJECT TITLE STUDY OF X-RAY TIMING OF NEUTRON STAR LOW MASS X-RAY BINARIES FOR THE PERIOD FROM 03.12.2022 TO 27.04.2023					
RECEIPTS		Amount (Rs.)	Amount (Rs.)	PAYMENTS	
TO	GRANT RECEIVED			By	SALARY PAID TO JRF (MAR'22 TO FEB'23)
	DS_2B-13013(2)10/2020 Sec-2 DT 20.03.23		561280		15.04.23
To	Interest on Savings Bank Account		286		
				By	TRAVEL AND CONTINGENCY
				By	Return of Interest Earned to Deptt. of Space
To	Opening Balance ON 03.12.22		15842	By	Closing Balance as on 27.04.2023
	Cash at Bank				Cash at Bank
	Canara Bank , Diamond Harbour Road, Kolkata				Canara Bank , Diamond Harbour Road, Kolkata
	S.B.Account No.0254101021779 , IFSC Code :-				S.B.Account No.0254101021779 , IFSC Code :-
	CNRB0000254 & MICR 700015003				CNRB0000254 & MICR 700015003
			577408		
					577408

Date - 02.05.23  
Place- Kolkata

For S.N.Guha &Co  
Chartered Accountants  
Firm registration No. 301104E

*S. Chandra*

(S.CHANDRA)

Partner

Membership No. 053613



Project Title: Study of X-ray timing properties of neutron star low mass X-ray binaries

(DS\_2B-13013(2)/10/2020-Sec. 2 Dated: January 19, 2021)

PI: Dr. Soma Mandal

Sl No.	Head of Accounts	Amount (Rupees)				
		Unspent Balance	III Yr grant allocated as per approval	Grant requested for III year	Grant recommended for III year	Grant recommended for III year release
1.	Fellowship + HRA	8680	520800	520800		
2.	Travel & Contingency	19	100000	100000		
3.	Materials (Computer)	2500	--	--		
4.	Arrears	--	--	--		
	Sub Total	11199	620800	620800		
	Interest received	286	--	--		
	Institutional Charges	NIL	50000	50000		
	<b>Total (including interest)</b>	<b>11485</b>	<b>670800</b>	<b>670800</b>		

Remarks: Grant requested for III year is Rs. Six lac seventy thousand and eight hundred only

*Soma Mandal*

Signature of the PI

GGGDC-ASTROSAT-AO-Project  
Principal Investigator  
Dr. Soma Mandal

Assistant Professor & Head  
Department of Physics  
Govt. Girls' General Degree College  
7, Mayurbhanj Road, Kol.-23