

मुंबई केन्द्र  
Mumbai Centre

विश्वविद्यालय अनुदान आयोग - परमाणु ऊर्जा विभाग वैज्ञानिक अनुसंधान संकुल  
UGC-DAE Consortium For Scientific Research

(विश्वविद्यालय अनुदान आयोग - नई दिल्ली द्वारा स्थापित स्वशासी संस्थान)  
(An autonomous institution of UGC, New Delhi)

Ref: UDCSR/MUM/AO/CRS-M-288/2017/ 585

Date:

To,  
Dr. Bholanath Pahari  
Assistant Professor  
Physics Department  
Goa University, Taleigao Plateau  
Goa - 403 206.

18 DEC 2017

Sub: Sanction of Collaborative research Scheme titled *"To rationalize the composition-structure-property relationship in  $Na_{3+x}Sc_2(SiO_4)_x(PO_4)_{3-x}$ : new promising NASICON materials for sodium-ion batteries."* (CRS-M-288)

Dear Dr. Pahari,

We are happy to inform you that following the Project Review Meeting held on 22<sup>nd</sup> August, 2017 at Mumbai, your above Collaborative Research Scheme (CRS) project has been sanctioned. Presently the project is sanctioned for one year w.e.f 1<sup>st</sup> January, 2018, but it may be extended after a **review every year**, subject to a total period of three years. The financial sanctions for the year 2018 are as follows:

Sl. No.	Head	Amount sanctioned for current year (01.01.2018 - 31.12.2018)
1.	Scholarship / Fellowship(#)	(**)
2.	Chemicals/Consumables	30,000.00
3.	Contingency	15,000.00
	<b>Total</b>	<b>45,000.00</b>
<b>Note:</b> No overheads are available under this scheme		

(\*) Funds under scholarship will be transferred after appointment of student as per the Guidelines of UGC DAE CSR.

(\*\*) Grants under scholarship will be transferred after appointment of student as per the guidelines of UGC-DAE CSR. If the student has already been appointed in your project and is continuing in the project, PI may please provide the appointment extension letter for release of Scholarship / Fellowship.

(#) Point no. 2.4 of guideline is to be invariably mentioned in the appointment letter issued to the student.

Guidelines regarding implementation of the CRS, Review, Appointment of Project fellow, Travel support to the PI or Student to visit BARC for performing experiments, etc. are enclosed herewith.

Dr. Anup Kumar Bera, Solid State Physics Division, BARC (Email: akbera@barc.gov.in), will be your Principal Collaborator (PC) for the above scheme. You may contact him for implementation of the scheme.

Please send us your acceptance letter by 15.01.2018. On receipt of your acceptance letter, financial grant for CRS will be sent through NEFT/ RTGS (kindly provide details in the enclosed format along with the acceptance letter) to the Registrar/Financial Authority of your Institute, subject to receipt of funds from UGC, New Delhi.

Thanking you,

Yours sincerely

*[Signature]*  
Administrative Officer

Encl : As stated

Copy to,

1. Registrar, Goa University, Taleigao Plateau, Goa - 403 206.
2. Head, Solid State Physics Division, BARC, Trombay, Mumbai-400 085.
3. Director, UGC-DAE CSR, Univ. Campus, Khandwa Road, Indore-452 017.
4. Dr. Anup Kumar Bera, Solid State Physics Division, BARC, Trombay, Mumbai - 400 085.



**UGC-DAE CONSORTIUM FOR SCIENTIFIC RESEARCH, MUMBAI CENTRE**  
246 – C, 2<sup>nd</sup> Floor, CFB, B.A.R.C., MUMBAI-400085

**GUIDELINES FOR COLLABORATIVE RESEARCH SCHEMES (2018)**

**USING FACILITIES UNDER**

**NATIONAL FACILITY FOR NEUTRON BEAM RESEARCH (NFNBR),  
(SOLID STATE PHYSICS DIVISION, BARC)**

**AND**

**UGC-DAE CONSORTIUM FOR SCIENTIFIC RESEARCH, MUMBAI CENTRE**

- 1.1 The Collaborative Research Schemes (CRS) are expected to add value to research in the universities by allowing university scientists to use Neutron Spectrometers in the Dhruva Reactor and the in-house facilities of UGC-DAE CSR, Mumbai Centre.  
The research scheme is expected to continue for 3 years depending upon the progress. The progress of the scheme shall be reviewed at least once a year.
- 1.2 Principal Investigator (PI) shall be responsible for carrying out the CRS as per rules and regulations of UGC-DAE CSR and Solid State Physics Division (SSPD), BARC. He/She and his/her student should follow the security and safety procedures of BARC as applicable from time to time.
- 1.3 The scientific program of the CRS shall be carried out by the PI and a Principal Collaborator (PC) from SSPD, BARC or UGC-DAE CSR, Mumbai Centre. All scientific publications resulting from the CRS, shall be communicated by the PI or PC with each other's consent. Technical and Scientific assistance from UGC-DAE CSR or SSPD personnel shall be acknowledged, either in the acknowledgment or in authorship.
- 1.4 Progress reports, extension requests, conclusion documents, etc. shall be submitted by the PI to UGC-DAE CSR with the consent of the PC.
- 1.5 PI shall send the copies of publications, thesis, etc. resulting from the CRS to the Centre Director, UGC-DAE CSR, Mumbai Centre and Head, SSPD, BARC.
- 1.6 Financial support received from UGC-DAE CSR shall be acknowledged explicitly in all publications.
- 1.7 In order to assess the impact of the schemes on the scientific standing of the university, PIs should provide information whether their departments are being aided by programmes such as SAP, COSIST, CAS, FIST, etc. from agencies other than UGC-DAE CSR.

**Appointment of Student:**

- 2.1 If appointment of Project Fellow (PF) is sanctioned, he/she shall be appointed within the first four months from the date of commencement of the scheme.
- 2.2 The rates of fellowship range from Rs.14,000/- to Rs. 28,000/-. The fellowship funds will be transferred only after appointment of student depending on the student's qualification, etc as per rules of UGC-DAE CSR, applicable at present and mentioned below:

Designation	Remuneration	Qualification
Project Fellow Non Net/ non GATE Candidates	Rs. 14,000/- p. m. + HRA *** for initial two years and Rs. 16,000/- for third year* onwards	For Sciences : 2 <sup>nd</sup> class M.Sc. with a minimum of 55% marks in the subject concerned or For Engineering: 1 <sup>st</sup> class B. E. / B.Tech degree.
Project Fellow NET qualified Candidates GATE Qualified Candidates <u>in the project relevant subjects</u>	Rs. 25,000/- p. m. + HRA*** for initial two years and Rs. 28,000/- for third year* onwards	For Sciences : NET-JRF / Lectureship (UGC-CSIR joint test) or ** (JEST qualified) For Engineering: M. E / M.Tech. With minimum 55% marks. Or <b>having VALID GATE score in project relevant subject.</b>

\* If the research work after 2 years as Project Fellow is found satisfactory on assessment by a dept committee having nominee of the Centre Director as a member and with at least one research paper in a reputed journal.

\*\* JEST Examination qualified candidates may be selected as Project Fellows and they may be treated at par with NET qualified student in regard to fellowship.

\*\*\* HRA will be paid only if the University/ Institute furnishes a certificate that the project fellow is NOT provided accommodation facility by the University.



- 2.3 All appointments should be authorized by a selection committee constituted as per the rules of the institution in which the PI is working. The Selection Committee should also have a representative of UGC-DAE CSR, who will be nominated by the Centre Director, UGC-DAE CSR, Mumbai Centre.
- 2.4 In all the cases of appointment under the scheme, it shall be mentioned in the appointment letter that

The appointment is purely temporary and will terminate automatically without any notice or compensation on termination of the research scheme and the appointed person shall have no claim of appointment/absorption in UGC-DAE CSR.

An undertaking to this effect must be taken from the appointed person. Initially the appointment order is to be issued only up to the current sanctioned period of one year of the project. However extension to the appointment can be given only if the project is given further extension with a provision of project fellow and the same is to be intimated to UGC DAE CSR, Mumbai Centre for further release of fellowship.

- 2.5 **The fellowship of a student shall not be upgraded without prior approval from UGC-DAE CSR.**
- 2.6 PIs are urged to send students to BARC/UGC-DAE CSR, Mumbai Centre for at least 30 days in a year.
- 2.7 The PIs should ensure that the request form for sending the students to BARC/UGC-DAE CSR, Mumbai Centre is sent well in advance in consultation with PC of the project for using the facility.
- 2.8 **No overhead charges will be paid to your institute under this CRS Project.**

**Travel:**

- 3.1 No money for travel will be included in the financial allocation for individual PIs. However travel support will be provided for all sanctioned schemes on the following basis,
- (a) The PI will write to the Principal Collaborator with a copy to the Centre Director, UGC-DAE CSR, Mumbai Centre to fix the time and duration of the visit of the PI or the student working under the scheme. Travel of the PI or the student shall be undertaken only after receiving intimation from the concerned PC regarding his availability, arrangement for accommodation and the entry permit, etc.
- (b) Due to stringent financial situation, the PI shall be paid TA/DA as per rule (limited to a maximum of AC-II Tier by Train by the shortest route). The student appointed under the scheme shall be paid First Class / AC 3-Tier / AC CC to and fro and DA as admissible under rules. TA/DA claim will be paid by Mumbai Centre of UGC-DAE CSR by means of Demand Draft/ Cheque.
- (c) Only in case of journey travelled by Air India, the reimbursement will be restricted to AC- II tier train fare for PIs and for student it will be restricted to AC- III tier train fare of shortest route.
- (d) For reimbursement of TA/DA the claim shall be accompanied with original bus tickets if traveled by Bus and photocopy of the train ticket if traveled by Train. TA claim shall also accompany the Activity Report and shall be counter-signed by the PC.
- (e) DA will be paid for a maximum of 15 days stay at a stretch.

**Statement of Account and Certificate of Utilization of Funds:**

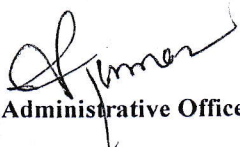
- 4.1 An Annual Statement of Accounts and a Certificate of Utilization of money sent for the research scheme shall be submitted to the Centre Director, UGC-DAE CSR, Mumbai Centre after the completion of project sanctioned period of each year .(i.e every after one year).  
A consolidated progress report and a list of publications for the year must also be submitted to the Centre Director, Mumbai Centre by April 30 of each year.

**Review of the Scheme:**

- 5.1 Every research scheme will be reviewed at least once a year. Depending on the progress of the CRS, a decision shall be taken on its renewal/ extension by the User Committee.

**Publications:**

- 6.1 If the studies carried out under CRS result in a Journal publication (or presentation of a paper in Conference), the copies of reprint (or abstract with conference details) of the publication should be sent to the Centre Director, UGC-DAE CSR, Mumbai Centre for record.

  
Administrative Officer



FD Diary No.10481  
Dated : 31.03.2015

**University Grants Commission  
Bahadur Shah Zafar Marg  
New Delhi-110 002**

**No.F.4-5(117-FRP)/2014(BSR)**

**Dated: March, 2015**

The Under Secretary FD-III Section,  
University Grants Commission  
Bahadur Shah Zafar Marg,  
New Delhi – 110002.

131 MAR 2015

**Subject:-** UGC-Faculty Recharge Programme – Release of Start up Grant towards **Start-up-grant for Dr. Bholanath Pahari, Assistant Professor, Deptt. of Physics, Goa University, Goa University Campus, Taleigao Plateau, Goa – 403 206** for the year 2014-15 under **Plan-Regarding**.

Sir,

The University Grants Commission convey its approval and allocate a sum of **Rs.6,00,000/- (Rupees Six Lakhs Only)** being the **Start-Up-Grant** for **Dr. Bholanath Pahari, Assistant Professor, Deptt. of Physics, Goa University, Goa University Campus, Taleigao Plateau, Goa – 403 206** under the scheme of **UGC-Faculty Recharge Programme**.

Accordingly, I am directed to convey the sanction of the University Grants Commission for payment of **Rs.6,00,000/- (Rupees Six Lakhs only)** to the **Registrar, Goa University, Goa University Campus, Taleigao Plateau, Goa – 403 206** being the approval of **Rs.6,00,000/- (Rupees Six Lakhs only)** towards **Start-Up-Grant** for **Dr. Bholanath Pahari, Assistant Professor, Deptt. of Physics**, under the scheme of **UGC-Faculty Recharge Programme** as per details given below:-

Name of the Item	Head of Account	Name of Faculty	Name of Department	Amount Approved (Rs.)	Amount being released (Rs.)
Start-up grant for newly recruited faculty under UGC-Faculty Recharge Programme	3(A): 2202.03.102.10.01.31	Dr. Bholanath Pahari	Physics	Rs.6,00,000/- (Rupees Six Lakhs Only)	Rs.6,00,000/- (Rupees Six Lakhs only)



2. The sanctioned amount is debitable to the major Head **3(A). 2202.03.102.10.01.31** and is valid for payment during the financial year 2014-15 only.
3. The amount of the Grant shall be drawn by the Under Secretary (Drawing and Disbursing Officer) UGC on the Grants-in-aid bill and shall be disbursed to and credited to the **Registrar, Goa University, Goa University Campus, Taleigao Plateau, Goa – 403 206** through Electronic mode as per the following details:
  - a. **Details (Name & Address) : Registrar, Goa University, Goa University Campus, Taleigao Plateau, Goa – 403 206**  
of Account Holder
  - b. **Account No. : 10664493609**
  - c. **Name & Address of Bank : State Bank of India, Goa University Campus, Taleigao Plateau, Goa-403206**  
Branch
  - d. **MICR Code : 403002053**
  - e. **IFSC Code : SBIN0004311**
  - f. **Type of Account : Saving**
4. The Grant is Subject to the adjustment on the basis of Utilization Certificate in the prescribed proforma submitted by the University/Institution.
5. The University / Institution shall maintain proper accounts of the expenditure out of the Grants which shall be utilized only on the approved items of expenditure.
6. The University / Institution may follow the General Financial Rules, 2005 and take urgent necessary action to amend their manuals of financial procedures to bring them in conformity with GFRs, 2005 and those don't have their own approved manuals on financial procedures may adopt the provisions of GFRs, 2005 and instructions/guideline there under from time to time.
7. The Utilization Certificate to the effect that the grant has been utilized for the purpose for which it has been sanctioned shall be furnished to the UGC as early as possible after the close of the current financial year.
8. The assets acquired wholly or substantially out of University Grants Commission's Grant Shall not be disposed or encumbered or utilized for the purposes other than those for which the grants was given, without proper sanction of the UGC and should at any time the University ceased to function, such assets shall revert to the University Grants Commission.



9. A Register of Assets acquired wholly or substantially out of the grant shall be maintained by the University in the prescribed proforma.
10. The grantee institution shall ensure the utilization of grants-in-aid for which it is being **sanctioned** / paid. In case of non-utilization/part utilization thereof, simple interest @ 10 % per annum as amended from time to time on the unutilized amount from the date of drawal to the date of refund as per provisions contained in General Financial Rules of Govt. of India, will be charged.
11. The University / Institution shall follow strictly the Government of India / UGC's guidelines regarding implementation of the reservation policy [both vertical (for SC, ST & OBC) and horizontal (for persons with disability etc.)] in teaching and non-teaching posts.
12. The University / Institution shall fully implement the Official Language Policy of Union Government and comply with the Official Language Act, 1963 and Official Languages (Use for Official Purposes of the Union) Rules, 1976 etc.
13. The sanction is issued in exercise of the delegation of powers vide UGC Order No. 130/2013 [F.No. 10-11/12 (Admn. IA & B)] dated 28/5/2013.
14. The University /Institution shall strictly follow the UGC Regulations on curbing the menace of Ragging in Higher Education Institutions, 2009.
15. The University / Institution shall take immediate action for its accreditation by National Assessment & Accreditation Council (NAAC).
16. The accounts of the University / Institution will be open for audit by the Comptroller & Auditor General of India in accordance with the provisions of General Financial Rules, 2005.
17. The annual accounts i.e. balance sheet, income and expenditure statement and statement of receipts and payments are to be prepared strictly in accordance with the Uniform Format of Accounting prescribed by Government.



18. This issues with the concurrence of IFD vide Diary No.11283(IFD) Dated 20.03.2015.
19. This issues with the approval of **Chairman, UGC** vide Diary No.19139 Dated **27.03.2015**.


**Noted in BCR Register 2014-2015 at P.No.19 S.No.112.**

Yours faithfully,

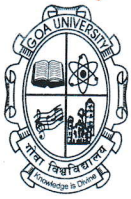
(Shalini)  
Education Officer

Copy forwarded for information and necessary action to:-

1. **Registrar, Goa University, Goa University Campus, Taleigao Plateau, Goa – 403 206.** He / She is requested to abide by these instructions/guidelines of sanction order.
2. The Secretary (Education) to the State Government of **Goa, Goa.**
3. **The Head, Department of Physics, Goa University, Goa University Campus, Taleigao Plateau, Goa – 403 206.**
- ✓ 4. **Dr. Bholanath Pahari, Assistant Professor, Deptt. of Physics, Goa University, Goa University Campus, Taleigao Plateau, Goa – 403 206.**
5. The Director General of Audit, Central Revenues, AGCR Building, I.P. Estate, New Delhi.
6. Guard file.

  
(Usha Arya)  
Section Officer





# गोंय विद्यापीठ

ताळगांव पठार,

गोंय - ४०३ २०६

फोन : +९१-८६६९६०९०४८

फॅक्स : +०९१-८३२-२४५११८४/२४५२८८९

# Goa University

Taleigao Plateau, Goa-403 206

Tel : +91-8669609048

Fax : + 091- 832-2451184/2452889

E-mail : registrar@unigoa.ac.in

Website : www.unigoa.ac.in



(Accredited by NAAC with Grade 'A')

## Utilization Certificate

Certified that a total grant of **Rs. 1,07,880/-** (Rs. One Lakh Seven Thousand Eight-hundred and Eighty only) was received from UGC-DAE Consortium for Scientific Research, Mumbai Centre under the Collaborative Research Scheme (CRS) entitled "To rationalize the composition-structure-property relationship in  $\text{Na}_{3+x}\text{Sc}_2(\text{SiO}_4)_x(\text{PO}_4)_{3-x}$ : new promising NASICON materials for sodium-ion batteries" vide letter No. UDCSR/MUM/AO/CRS-M-288/2021/1115 dated 09/03/2021. **Rs. 1,07,880** has been utilized for the purpose for which it was sanctioned and in accordance with the terms and conditions laid down by the UGC-DAE-CSR and there is unspent balance of **Rs. 0.0/-** under the project.

Principal Investigator

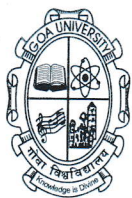
Finance Officer

Registrar

Finance Officer  
Goa University  
Taleigao Plateau,  
Goa - 403 206

Registrar  
Goa University  
Taleigao Plateau,  
Goa - 403 206





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E-mail : registrar@unigoa.ac.in

Website : www.unigoa.ac.in



(Accredited by NAAC with Grade 'A')

## Statement of Accounts

1. Name of the Principal Investigator: Dr. Bholanath Pahari
2. Department: Physics Department, Goa University
3. UGC-DAE CSR Approval No.: UDCSR/MUM/AO/CRS-M-288/2021/1115 dated 09/03/2021
4. Title of CRS: To rationalize the composition-structure-property relationship in  $\text{Na}_{3+x}\text{Sc}_2(\text{SiO}_4)_x(\text{PO}_4)_{3-x}$ : new promising NASICON materials for sodium-ion batteries
5. Effective date of starting of the CRS: 01/01/2018
6. Period of Expenditure: 01/01/2021 to 31/03/2021
7. Project Fellow: Mr. Mahendra Choudhary
8. Details of Expenditure (year Wise): 4th year

Head	Previous year Unspent Balance	Amount Sanctioned for current year (Rs.)	Amount Received (Rs.) for current year	Expenditure Incurred (Rs.) in current year	Unspent Balance (Rs.) in current year
Fellowship	0.0/-	93000/-	93000/-	93000/-	0.0/-
HRA	0.0/-	14880/-	14880/-	14880/-	0.0/-
Total	0.0/-	107880/-	107880/-	107880/-	0.0/-

1. It is certified that the appointment has been made in accordance with the terms and the conditions laid down by the UGC-DAE-CSR.
2. If, as a result of check or audit objective, some irregularity is noticed later date, action will be taken to refund, adjust or regularize the objected amounts.

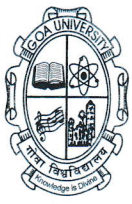
Principal Investigator

Finance Officer

Registrar

Finance Officer  
Goa University  
Taleigao Plateau,  
Goa - 403 206

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Website : www.unigoa.ac.in



(Accredited by NAAC with Grade 'A')

## Utilization Certificate

Certified that a total grant of **Rs. 3,44,194/-** (Rs. Three Lakhs Forty-four Thousand One-hundred and Ninety-four only) was received from UGC-DAE Consortium for Scientific Research, Mumbai Centre under the Collaborative Research Scheme (CRS) entitled "To rationalize the composition-structure-property relationship in  $\text{Na}_{3+x}\text{Sc}_2(\text{SiO}_4)_x(\text{PO}_4)_{3-x}$ : new promising NASICON materials for sodium-ion batteries" vide letter No. UDCSR/MUM/AO/CRS-M-288/2020/988 dated 18/12/2020. **Rs. 4,76,520** has been utilized for the purpose for which it was sanctioned and in accordance with the terms and conditions laid down by the UGC-DAE-CSR and there is unspent balance of **Rs. 0.0/-** under the project.

Principal Investigator

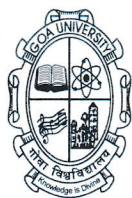
Finance Officer

Registrar

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Taleigao Plateau,  
Goa - 403 206

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## Statement of Accounts

1. Name of the Principal Investigator: Dr. Bholanath Pahari
2. Department: Physics Department, Goa University
3. UGC-DAE CSR Approval No.: UDCSR/MUM/AO/CRS-M-288/2020/988 dated 18/12/2020
4. Title of CRS: To rationalize the composition-structure-property relationship in  $\text{Na}_{3+x}\text{Sc}_2(\text{SiO}_4)_x(\text{PO}_4)_{3-x}$ : new promising NASICON materials for sodium-ion batteries
5. Effective date of starting of the CRS: 01/01/2018
6. Period of Expenditure: 01/01/2020 to 31/12/2020
7. Project Fellow: Mr. Mahendra Choudhary
8. Details of Expenditure (year Wise): 3<sup>rd</sup> year

Head	Previous year Unspent Balance	Amount Sanctioned for current year (Rs.)	Amount Received (Rs.) for current year	Expenditure Incurred (Rs.) in current year	Unspent Balance (Rs.) in current year
Fellowship	126667/-	372000/-	245333/-	372000/-	0.0/-
HRA	5471/-	59520/-	54049/-	59520/-	0.0/-
Chemical & Consumable	188/-	30000/-	29812/-	30000/-	0.0/-
Contingencies	0/-	15000/-	15000/-	15000/-	0.0/-
Total	132326/-	476520/-	344194/-	476520/-	0.0/-

1. It is certified that the appointment has been made in accordance with the terms and the conditions laid down by the UGC-DAE-CSR.
2. If, as a result of check or audit objective, some irregularity is noticed later date, action will be taken to refund, adjust or regularize the objected amounts.

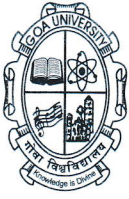
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(Accredited by NAAC with Grade 'A')

## Utilization Certificate

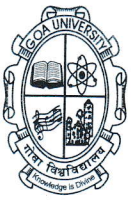
Certified that the grant for Rs. 3,53,858/- (Rs. Three Lakh Fifty-three Thousand Eight Hundred and Fifty-Eight only) received from UGC-DAE Consortium for Scientific Research, Mumbai Centre under the Collaborative Research Scheme (CRS) entitled "To rationalize the composition-structure-property relationship in  $\text{Na}_{3+x}\text{Sc}_2(\text{SiO}_4)_x(\text{PO}_4)_{3-x}$ : new promising NASICON materials for sodium-ion batteries" vide letter No. UDCSR/MUM/AO/CRS-M-288 /2019/161, Dtd. 27/06/2019. Rs. 2,32,012 has been utilized for the purpose for which it was sanctioned and in accordance with the terms and conditions laid down by the UGC-DAE-CSR and there is unspent balance of Rs. 1,32,326/- under the project. The unspent balance will be utilized in next financial year.

  
17.01.2020  
Principal Investigator

  
Finance Officer

  
Registrar





# गोंय विद्यापीठ

ताळगांव पठार,  
गोंय - ४०३ २०६  
फोन : +९१-८६६९६०९०४८  
फॅक्स : +०९१-८३२-२४५९९८४/२४५२८८९

# Goa University

Taleigao Plateau, Goa-403 206  
Tel : +91-8669609048  
Fax : + 091- 832-2451184/2452889  
E-mail : registrar@unigoa.ac.in  
Website : www.unigoa.ac.in



(Accredited by NAAC with Grade 'A')

## Statement Of Accounts

1. Name of the Principal Investigator : Dr. Bholanath Pahari
2. Department : Physics Department, Goa University
3. UGC-DAE CSR Approval No. : No. UDCSR/MUM/AO/CRS-M-288/2018/838  
Dtd. 31/03/2018 For 2<sup>nd</sup> Year
4. Title of CRS : To rationalize the composition-structure-property relationship  
in  $\text{Na}_{3+x}\text{Sc}_2(\text{SiO}_4)_x(\text{PO}_4)_{3-x}$ : new promising NASICON  
materials for sodium-ion batteries
5. Effective date of starting of the CRS : 01/01/2018
6. Period of Expenditure : 01/01/2019 to 31/12/2019
7. Project Fellow : Mr. Mahendra Choudhary
8. Details of Expenditure (Year Wise) For 1<sup>st</sup> & 2<sup>nd</sup> year

Head	Previous year Unspent Balance (Rs.)	Amount Sanctioned (Rs.) for current year	Amount Received (Rs.) for current year	Expenditure Incurred (Rs.) in current year	Unspent Balance (Rs.) in current year
Fellowship	nil	3,00,000	3,00,000	1,73,333	1,26,667
HRA on fellowship	nil	24,000	19,338	13,867	5,471
Chemicals/Consumables	926	30,000	29,074	29,812	188
Contingency	9,554	15,000	5,446	15,000	nil
Total	10,480	3,69,000.00	3,53,858	2,32,012	1,32,326

(If Project Fellow is appointed than SI No. 1)

1. It is certified that the appointment has been made in accordance with the terms and the conditions laid down by the UGC-DAE-CSR.
2. If, as a result of check or audit objective, some irregularity is noticed later date, action will be taken to refund, adjust or regularize the objected amounts.

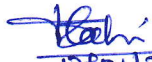
17.01.2020  
Principal Investigator

Finance Officer


Registrar

## Certificate

This is to certify that Mr. Mahendra Choudhary is working as a Project Fellow in a project CRS-M-288 at the Department of Physics, Goa University, Taleigao Plateau, Goa. He has not been given any accommodation from the University and hence he is eligible for HRA.

  
17/01/2020  
Principal Investigator  
CRS-M-288



  
Finance Officer  
Finance Officer  
Goa University  
Taleigao Plateau