

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-295/2017/592

Date 19 DEC 2017 (4)

To, Dr. Sudhir Cherukulappurath Physics Department Goa University P.O. Talaigao Plateau Goa - 403 206

Sub: Sanction of Collaborative research Scheme titled "Reduced Graphene Oxide-Gold Nanoparticle Composite based Surface Enhanced Raman Spectroscopy for Sensing Environmental Pollutants"

Dear Dr. Cherukulappurath,

We are happy to inform you that following the Project Review Meeting held on 22nd 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 1st 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:

SI. No.	Head	Amount sanctioned for current year (01.01.2018 – 31.12.2018)(*)	
1.	Scholarship / Fellowship(#)	(01.01.2010 = 51.12.2018)(*)	
2.	Chemicals/Consumables	20,000,00	
3.	Contingency	30,000.00	
	Total	15,000.00	
Note:	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.Rekha Rao, Solid State Physics Division, BARC (Email: rekhar@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,

Encl : As stated

Copy to,

Yours sincerely Administrative Officer

1. Registrar, Goa University P.O., Talaigao 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.Rekha Rao, Solid State Physics Division, BARC, Trombay, Mumbai - 400 085.

२४६-सी, दूसरी मंज़िल, सामान्य सुविधा भवन, भाभा परमाणु अनुसंधान केन्द्र, ट्रॉम्बे, मुंबई - ४०० ०८५

246-C, 2nd Floor, Common Facility Building, Bhabha Atomic Research Centre, Trombay, Mumbai-400 085. Phone: +91 022 25505327, 25594727 • Fax: +91 022 25505402 E-mail : udcsr.mum@csr.res.in

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(Accredited by NAAC with Grade 'A')

Statement Of Accounts

- : Dr. Sudhir Cherukulappurath 1. Name of the Principal Investigator Physics 2. Department : UDCSR/AO/MUM/CRS-M-295/2019/142 3. UGC-DAE CSR Approval No. 24-06-2019 For 2ndYear Dtd. : Reduced graphene oxide -gold nanoparticle composite based 4. Title of CRS sensing for spectroscopy surface-enhanced Raman environmental pollutants. 5. Effective date of starting of the CRS : 01-01-2018 : 01-01-2019 to 31-12-2019 6. Period of Expenditure : Mr. Jostine Joby, JRF 7. Project Fellow
- 8. Details of Expenditure (Year Wise)

: Second Year (Jan. 2019 - Dec. 2019)

SI. No.	Head	Previous Year Unspent Balance in Rs	Amount Sanctioned in Rs.	Amount Received in Rs.	Expenditure Incurred in Rs.	Unspent Balance in Rs.
1	Fellowship	Nil	1,68,000	1,68,000	1,68,000	Nil
1. 2	HRA on fellowship	Nil	13,440	13,440	13,440	Nil
2.	Chemicals/Consumables	17,603	30,000	12,397	30,000	Nil
3.		15,000	15,000	-	7772	7228
4. Contingency Total		32,603	2,26,440	1,93,837	2,19,212	7228

(If Project Fellow is appointed then Sl No. 1)

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

Principal Investigator

Finance Officer

Registrar



गोंय विद्यापीठ ताळगांव पठार.

गोंय - ४०३ २०६ फोन : +९१-८६६९६०९०४८ फॅक्स : +०९१-८३२-२४५११८४/२४५२८८९ Goa University

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Utilization Certificate

Certified that the grant for Rs. 1,93,837/- (Rupees One Lakh Ninety Three Thousand Eight Hundred and Thirty Seven Only) received from UGC-DAE Consortium for Scientific Research, Mumbai Centre under the Collaborative Research Scheme (CRS) entitled "Reduced graphene oxide -gold nanoparticle composite based surface-enhanced Raman spectroscopy for sensing environmental pollutants" vide letter No. UDCSR/AO/MUM/CRS-M-295/2019/142 dtd 24-06-2019 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 7228/- under the project. Permission may be granted to carry over the unspent balance amount to the next financial year.

Principal Investigator

Finance Officer

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HRA Certificate

This is to certify that Mr. Jostine Joby is a Project Fellow working in a project CRS-M-295 in the Physics Department of Goa University. He is eligible for HRA as per University rules applicable to JRF.

Principal Investigator CRS-M- 295

and

Finance Officer

Statement Of Accounts

1. Name of the Principal Investigator	: Dr. Sudhir Cherukulappurath		
2. Department	: Physics		
3. UGC-DAE CSR Approval No.	: UDCSR/AO/MUM/CRS-M-295/2020/643		
	Dtd. 29-01-2020 For 3 rd Year		
4. Title of CRS	: Reduced graphene oxide -gold nanoparticle composite based		
	surface-enhanced Raman spectroscopy for sensing		
	environmental pollutants.		
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. Jostine Joby, JRF		
8. Details of Expenditure (Year Wise)	: Third Year (Jan. 2020 -Dec. 2020)		

Sl.	Head	Previous Year	Amount	Amount	Expenditure	Unspent
No.		Unspent	Sanctioned in	Received	Incurred	Balance
		Balance in Rs	Rs.	in Rs.	in Rs.	in Rs.
1.	Fellowship	Nil	1,68,000	1,68,000	1,68,000	Nil
2.	HRA on fellowship	Nil	26880	26880	26880	Nil
3.	Chemicals/Consumables	Nil	30,000	30000	30,000	Nil
4.	Contingency	7228	15000	7772	7772	Nil
Total		7228	2,39,880	2,32,652	2,32,652	Nil

(If Project Fellow is appointed then Sl 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.

Principal Investigator

Finance Officer

Registrar