

# Pt. Ravishankar Shukla University, Raipur (C.G.) DST- PURSE PROJECT (SR/PURSE/2022/145)

## **Project Implementation Group**

Prof. Manas Kanti Deb Coordinator & Chief Project Investigator Mobile: +91-9425503750 E-mail: debmanas@yahoo.com Prof. Shamsh Pervez Principal Investigator Mobile: +91-9753413202 E-mail: shamshpervez@gmail.com

Prof. D P Bisen Co-Principal Investigator Mobile: +91-9406201131 E-mail: dpbisen@rediffmail.com

No: DST-PURSE 01/23

प्रति महाप्रबन्धक संवाद, छत्तीसगढ़ शासन, रायपुर

Date: 10 May 2022

विषय: डीएसटी पर्स (PURSE) एवं एसईआरबी ग्रांट के अंतर्गत स्वीकृत ManPower हेतु विज्ञापन एक राष्ट्रीय एवं दो स्थानीय स्तर के दैनिक समाचार पत्रों मे प्रकाशित करने हेतु

विषयांतरगत डीएसटी पर्स (PURSE) एवं एसईआरबी ग्रांट के अंतर्गत स्वीकृत ManPower हेतु निम्नानुसार विज्ञापन दो राष्ट्रीय एवं दो स्थानीय स्तर के दैनिक समाचार पत्रों मे प्रकाशित करने का कष्ट करेंगे।

## ADVERTISEMENT FOR SCIENTIFIC MANPOWER POSITIONS IN DST-PURSE & SERB PROJECTS

Applications are invited from qualified candidates for the scientific/technical manpower temporary positions recruitment, as per DST Office memorandum SR/S9/Z-05/2019 dtd 10 July 2020, in DST-PURSE project (SR/PURSE/2022/145) and SERB Projects (CRG/2022/003926 & EEQ/2022/000967) for the positions of Project Associate-II/JRF, Project Associate-II, Laboratory Assistant/Project Assistant as per details available in website of Pt. Ravishankar Shukla University, Raipur, 492 010, CG (<u>https://www.prsu.ac.in/</u>). Last date of the application: One month from advt. publication date

Coordinator/ DST-PURSE; PIs/SERB Projects

संयोजने, डीएसटी पर्स (PURSE)

# Office of the Coordinator, DST-PURSE ((SR/PURSE/2022/145) Pandit Ravishankar Shukla University, Raipur

#### Ref: DST-PURSE/01/23

#### Dated 10 May 2023

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Required essential and desirable qualifications for the scientific/technical manpower temporary positions are given below in the table below for the three separate projects:

## Title of the DST-PURSE Project (SR/PURSE/2022/145) -

## "Integrative Approach towards Developing Sensing, Measurement Devices and Mitigation Methods for Environmental Pollutants known for Potential Impact on Health and Climate Change"

The qualification and expertise/experience is required to fulfil the following objectives of research project:

- 1. 2-year long environmental monitoring campaign (air, water, soils) in classified environmental receptors and major sources of emissions in Raipur-Durg-Bhilai region to address thermal, optical and molecular properties, source emission estimates, source apportionment, health risk assessment
- 2. Design and Development of sensing-measurement devices for potentially toxic chemical species (ions, VOCs, CO, SO2 and NO/NO2) using nanocomposites by following the 2D, 3D printed colorimetric, fluorometric and electrochemical techniques, LED induced chemiluminescence radiation source and surface O3 sensor using thermoluminescence techniques.
- 3. Development of removal methods for ionic, organics (atmospheric VOCs & soluble organics in water) and inorganic gases (CO, SO2, NO/NO2) at source using engineered and functionalized carbon fibers.
- 4. Development of energy saving devices using waste derived carbon-based materials and composites.



S. No.	Research Project Sub-Titles	Name of Position	No. of Position	Essential Qualification	Desirable Qualification
1.	Development of sensing devices using 2D 3D printing by colorimetry fluorimetry & electro chemical techniques	Laboratory Assistant/Project Assistant/Techni cal Assistant	01	B.Sc. (Physics, Chemistry, Mathematics) or better (Viz. MSc Chemistry/M. Sc Electronics/Instrumentation	Experience in developing sensing devices using 2D 3D printing by colorimetry fluorimetry & electrochemical techniques
2.	Source apportionment and health risk of fine/ultrafine ambient particulate in Raipur- Durg-Bhilai Region	Project Associate-I	01	Master's degree in chemistry/ Environmental chemistry from a recognized university	Experience in air sampling and analysis along with estimating emission factors and health risks
3.	Synthesis and characterization of advanced phosphors for thermoluminescence dosimetry	Project Associate-I	01	Master's degree in physics/Electronics Sciences from a recognized University	Experience in developing chemiluminescence/thermolumin escence material synthesis
4.	Synthesis of effective waste derived nano composites for energy saving devices and air/water treatment devices	Project Associate-1	01	Master's degree in material sciences/ chemistry/ Environmental chemistry from a recognized university	Experience in manufacturing laboratory scale nano carbon fibers
5.	Ions, VOCs and other gaseous components in the urban environment: Study of measurements and development of removal methods	Project Associate-II	01	Master's degree in environmental sciences/chemistry/material sciences from recognized university	Experience in handling air quality samplers in field work, laboratory experience in handing sophisticated instrument viz GC- MS/MS, IC, CHSNO analyzer AAS, FTIR etc.)
6.	Synthesis and application of functionalized hetero atom doped carbon-based nano- fiber materials for wastewater treatment	Project Associate-II	01	Master's degree in material sciences/nanoscience/chemistr y/physics from a recognized university	Experience in developing nanomaterials for adsorption of air/water contaminants.

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SERB Projects CRG/2022/003926										
7.	Title: Emission Characterization and removal studies of hazardous gaseous pollutants at domestic heating sources using novel approaches of functionalized carbon fibre-based material	JRF/Project Associate-1	01	Master's degree in chemistry from a recognized University & other mandatory as per norms of SERB and university	Experience in dealing with objectives of the project					
SERB Projects EEQ/2022/000967										
8.	Title: Fluorescence resonance energy transfer (FRET) pairs of carbon dots and nanomaterials for sensing and imaging applications	JRF/Project Associate-1	01	Master's degree in chemistry from a recognized University & other mandatory as per norms of SERB and university	Experience in dealing with objectives of the project					

- Emoluments of the scientific manpower will be as per DST/SERB norms. Details attached.
- All the applications with self-attested all necessary certificates/ marksheets/ degrees, experience certificates should reach to the following addresses
  within one month from the date of publication of this advertisement in newspapers:
- One may apply for all above eight proposals if applicant carry required essential qualification(s) for the specific project task. However, separate applications for specific projects, described above, should be submitted to the following concerned.

For DST-PURSE Project SR/PURSE/2022/145: Prof. Manas Kanti Deb Coordinator, DST-PURSE School of Studies in Chemistry Pt Ravishankar Shukla University, Raipur, 492 010, CG debmanas@vahoo.com For SERB Projects CRG/2022/003926: Prof. Shamsh Pervez Principal Investigator, SERB Project School of Studies in Chemistry Pt Ravishankar Shukla University, Raipur, 492 010, CG shamshpervez@gmail.com

For SERB Projects EEQ/2022/000967: Dr Manmohan Satnami Principal Investigator SERB Project School of Studies in Chemistry Pt Ravishankar Shukla University, Raipur, 492 010, CG, manmohanchem@gmail.com

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