

**Applications invited for TWO JRF/PF positions under DST projects at SENR and Chemistry Dept., SoPS**

**Applications invited for TWO positions of JRF/PF under DST projects**

**Last Date for Application submission : 22-April-2017**

**Doon University, Dehradun**

Applications are invited for the two temporary positions of Junior Research Fellows/Project Fellows (JRF/PF) under the DST, Govt. of India, New Delhi sponsored projects at School of Environment & Natural Resources (SENR) and Dept of Chemistry, School of Physical Sciences. The eligible candidates should send their CVs to the respective PIs of the projects.

**1. Project :** *Data assimilation of satellite Observations into the regional chemical transport model (CTM) for air quality reanalyses and forecasts over India*

**Funded by :** *Science and Engineering Research Board (SERB), DST, Govt of India*

S. No.	Position Advertised	Age Limit (As on the date of interview)	Age relaxation (if any)	Monthly Fellowship	Duration	Essential Qualification, Desired Qualification
1	Junior Research Fellow/Project Fellow (JRF/PF)	Shall not be more than 28 years	Age limit is relaxable by five years for candidates belonging to SC/ST/OBC/Women and Physically Challenged applicants.	Rs. 25,000/- + HRA for NET qualified candidates.  Rs. 16,000/ + HRA for non-NET candidates.	One year, can be extended up to three years or coterminus with the project subject to the progress review of the candidate	Essential Qualification: M.Sc. or equivalent in Environmental Science/Atmospheric Science/Meteorology/Physical Sciences/Mathematical Sciences/Computer Science or in a similar closely related discipline from a recognized University/Institution.  Desirable

					e.	Qualification : should have interest in atmospheric science particularly air quality modelling. Familiarity with at least one of the programming languages such as FORTRAN/C++ and should have flavour of MATLAB or PYTHON or IDL especially for visualisation purpose, Should be able to demonstrate working ability in UNIX environment.
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**Nature of work:** Project will be carried out in different phases. The initial work will include running a chemical transport model (CTM) such as WRF-CHEM or LOTOS-EUROS in UNIX environment on HPC. The fellow is also expected to work with the satellite data such as MODIS-AOD and OMI-NO2. Finally, one of the data assimilation techniques would be deployed for the assimilation of satellite data into the model.

**2. Project :** *Metal and Metal Chalcogenide Nanoparticles : Catalytic and Sensing Applications*

**Funded by :** *Science and Engineering Research Board (SERB), DST, Govt of India*

S. No.	Position Advertised	Age Limit (As on the date of interview)	Age relaxation (if any)	Monthly Fellowship	Duration	Essential Qualification, Desired Qualification
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1	Junior Research Fellow/Project Fellow (JRF/PF)	Shall not be more than 28 years	Age limit is relaxable by five years for candidates belonging to SC/ST/OBC/Women and Physically Challenged applicants.	Rs. 25,000/- + HRA for NET qualified candidates.  Rs. 16,000/ + HRA for non-NET candidates.	One year, can be extended up to three years or coterminus with the project subject to the progress review.	Essential Qualification: M.Sc. or equivalent in Chemistry from a recognized University/Institution.  Desirable Qualification : (1) should have basic understanding , skills and a little practical experience in various characterization techniques including UV, IR, NMR, powder XRD, SEM, TEM.  (2) Should be able to perform organic reaction involving limited number of steps and to set up catalytic reactions with various concentration levels of catalyst.
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**Nature of work:** Project will involve the development of nanoparticles of transition metals using organochalcogen compounds as stabilizers. Syntheses of such compounds are also the part of project. Newly developed nanoparticles will be used as catalysts for various chemical transformations viz. C–C coupling reactions, C–N coupling reactions. Exploration of sensing applications of nanoparticles for gases like H<sub>2</sub>, H<sub>2</sub>O<sub>2</sub> will be the last stage of research project.