



Birla Institute of Technology & Science, Pilani

Pilani Campus

Dr. Anshuman Dalvi, Ph.D., Associate Professor and Head, Department of Physics
Associate Dean, Faculty Affairs

ADVERTISEMENT FOR PROJECT FELLOW/JRF POSITION

14th November, 2016

Application invited for JRF Position (CSR-IC-BL-52/CRS-169/2016-17/833)

Applications are invited for one position of JRF (leading to PhD from BITS Pilani) in a UGC-DAE consortium for scientific research, Indore sponsored CRS project “*EXAFS investigations on ion conducting polymer nanocomposites for conductivity structure correlation*” at Department of Physics, Birla Institute of Technology and Science, Pilani.

Objective and Nature of the work:

The main objective of this proposal is to understand the mechanism of electrical transport in Li⁺ ion conducting polymers dispersed with nanoparticles in general and superionic nanocrystallites in particular. Thus we plan to use mainly extended X-ray absorption fine structure spectroscopy technique (Indus-2 Beamline-1 and other beam lines at RRCAT, Indore) EXAFS to understand nanoparticle induced changes in polymer and ion dynamics by interaction of ether oxygen of polymer chain with various species. Further, impedance spectroscopy, differential scanning calorimetry, Raman spectroscopy, FE-scanning electron microscopy and optical microscopy available at BITS, Pilani and UGC-DAE-CSR, Indore will also be used to understand electrical transport and conductivity-structure correlation.

Duration of the Project: 3 Years **Eligibility Criteria:** M. Sc. in Physics/M.Tech. Materials Science with at least 60% marks. A candidate with CSIR-NET/GATE/JEST qualification and experience in relevant area will be preferred. **Fellowship:** As per UGC-DAE-CSR Indore norms. **How to apply:** Interested candidates may send application and detailed CV to undersigned on or before **15th December, 2016**

Anshuman Dalvi

(Principal Investigator)



Birla Institute of Technology & Science, Pilani
Pilani Campus, Vidya Vihar
Pilani 333031, Rajasthan, India

Email: adalvi@pilani.bits-pilani.ac.in

Tel: +91 1596 515288

Fax: +91 1596 244183

Web: <http://universe.bits-pilani.ac.in/pilani/adalvi/profile>