

Admission to PhD in Physics @ IISER Bhopal

Admission to the PhD programme in the following areas of research in Physics for the academic year 2011-2012 (2nd semester starting from Jan. 2012).

Research Areas:

Experimental Physics

- Condensed Matter: Magnetism, Transport properties, Thin Films, Electronic structure, Microscopy (AFM and SEM) etc.
- Soft Condensed Matter: Rheology, Colloidal Systems and Suspensions etc.
- Non-Linear Optics: Multi-photon absorption, Ultrafast time resolved spectroscopy etc.
- Tera Hertz spectroscopy, Photoemission spectroscopy.

Theoretical Physics

- Condensed Matter: Band structure of solids, Correlated electron system, Magnetism etc.
- Soft Condensed Matter: Statistical mechanics, Polymer Physics, Liquid Crystal etc.
- High Energy Physics: Particle Physics, Cosmic Ray, Radio Astronomy etc.
- Cosmology: Cosmic Microwave Background, Isotropy of Universe etc.

Research Facilities:

High Temperature Furnaces (Box and Tubular), Arc Furnace, Thin film deposition: Thermal evaporation, Spin coating, Pulsed Laser Deposition,

Closed Cycle Refrigerator, Single Crystal and Powder X-Ray Diffractometer,

Nano and Femto - second Laser with Optical Parametric Amplifier,

Transient Absorption and Tera-Hertz Spectrometer,

Physical Property Measurement system, SQUID - VSM magnetometer,

Atomic Force Microscope, Scanning Electron Microscope, Raman Spectrometer etc.

Computational facilities.

Eligibility:

The applicant must have completed or is about to earn a M.Sc. or B.Tech. with at least 55% marks or equivalent. SC/ST and physically handicap (PH) candidates must have at least 50% marks or equivalent. The applicants must also have any one of the following:

Valid CSIR-UGC NET(LS)/JRF, GATE score or JEST score.

Selection Procedure:

Shortlisted candidates will be informed by email and postal-mail and same will be available on the institute website. They will be called for a screening test followed by an interview (for those who qualify the screening test). TA/DA will be paid to SC/ST candidates.