

**INDIAN INSTITUTE OF TECHNOLOGY BHUBANESWAR**  
**INFORMATION FOR PH.D. PROGRAMME**

Indian Institute of Technology Bhubaneswar invites application for admission to Ph.D. Programme from candidates in the following categories:

1. **Regular** full-time scholars with Institute Assistance.
2. **Sponsored** Scholars: Candidates who possess the minimum prescribed qualifications and are in service in any of the following establishments shall be eligible for admission to the Ph.D. program as Sponsored Scholars:
  - i) Defence or other ministries of the Government of India or any other government organizations;
  - ii) Established industrial research and development organizations
  - iii) Autonomous bodies and public undertakings
  - iv) Universities/Colleges

**1) School of Basic Sciences:**

Organometallics, Green Chemistry, Supramolecular Chemistry, Molecular Recognition, Organic Solid State Chemistry, Polymorphism, Coordination Chemistry, Magnetic Materials, Bioinorganic Chemistry, Organic Synthesis, Theoretical Chemistry, Biophysical Chemistry, Protein Chemistry & Biochemistry, Biological and Catalytic Activity of Transition Metal Complexes, Complex Dynamics, Fractals, Combinatorial Matrix Theory, Spectral Graph Theory, Queuing Theory, Applied Probability Models, Stochastic Models in the Operations Research, Biology and Mathematical Finance, Optimization Theory, Geometric Programming, Artificial Neural Network, Applied Functional Analysis, Optimization theory, Complementarity Problems, Plasmonics and Optical Sensors, String Theory, Nanostructure Materials, Soft Condense Matter, Atomic Molecular Physics, Thermo-electrics, Multiferroics and Nano-magnetism.

**2) School of Earth, Ocean & Climate Sciences:**

Hydro -geochemistry, Water – Rock interaction, Geochemistry of soil & sediments, Pollutant Pathways.

**3) School of Electrical Sciences:**

RF and Microwave Engineering, Antenna Design, Radar Signal Processing, Microgrid Protection, Planning and Operation, Wide Area Protection for Transmission Systems and Intelligent Systems for Smartgrid Infrastructure, Decoupling Control, Robust Control, Periodic feedback Control, Power Quality, Custom Power Devices, Renewable Energy Sources, Application of Soft Computing Techniques to Power Systems, Adaptive Signal Processing, Soft and Evolutionary Computing, Semiconductor Material and Device Characterization, Wide Bandgap Semiconductor Devices, MMICs, Fiber Optics Device, Optical Communication, Optical Sensor, Communication System.

**4) School of Humanities, Social Sciences and Management:**

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| <b>Economics</b>  | - | Environmental Economics, Natural Resources Economics, Macroeconomics, Development, Economics & Rural Development  |
| <b>English</b>    | - | Indian Writing in English, Post Colonial Literature, Travel Writing, Business Communication, American Literature, Canadian Literature, ELT, Cross Cultural Communication, Autobiography |
| <b>Psychology</b> | - | Consumer Behavior, Cyber Psychology, Clinical Psychology, Cognitive Psychology, Cognitive Neuroscience, Psycholinguistics, Psychology of Personality, Marketing                         |

**5) School of Infrastructure (Civil Engineering):**

Structural Engineering, Geotechnical Engineering, Environmental Engineering, Transportation and Highway Engineering, Hydraulics and Water Resources Engineering.

## 6) School of Mechanical Sciences (Mechanical Engineering, Metallurgical & Materials Engineering):

Computational Fluid Dynamics, Fluid Mechanics, Turbulence, Heat Transfer, Composite Materials, Sandwich Structures, Fracture Mechanics, Composite Materials, Smart Composite Structures, Vibration, Fracture Mechanics, Solid Mechanics, Supply Chain Management, Quality Control, Logistics, Industrial Noise Control.

## 7) School of Minerals, Metallurgical and Materials Engineering:

Advanced metal processing, Metal based alloys and composites, Metal-ceramic interaction, Modelling and simulation of materials.

### Eligibility

Programme	Eligibility Criteria
PhD (Engineering)	60% marks or 6.75 CGPA in M. Tech/M.E with consistently good academic record OR B.Tech/B.E with 70% or 7.5 CGPA with valid GATE Score (very good) and consistently good academic record in the relevant field.
PhD (Science)	1st class in M.Sc. / M. Tech with consistently good academic record (equivalent CGPA) and valid GATE/NET CSIR/UGC score in the relevant field.
PhD (HSS)	55% marks or equivalent CGPA in Master degree with UGC/NET score OR M. Phil degree in the relevant field.

### How to Apply:

Duly completed application form (downloadable from <http://www.iitbbs.ac.in>), should be sent to **Officer-on-Special Duty (Academic Affairs)**, IIT Bhubaneswar, Samantapuri, Bhubaneswar, Odisha – 751 013 along with a **Demand Draft of Rs. 500/- for General/OBC, Rs. 250 for SC/ST drawn in favour of "IIT Bhubaneswar" on any nationalized bank payable at Bhubaneswar latest by 30<sup>th</sup> April, 2012 by post or in person**. Please superscribe 'Application for Admission to Ph.D. programme in the School of \_\_\_\_\_' on the top of the envelope. **Women candidates are exempted from the payment of application fees.** Candidates applying for more than one School should submit a separate application for each School.

The Institute reserves the right to call a limited number of candidates for written test or/ and interview.

***\*Incomplete applications /without relevant supporting documents/ without prescribed Demand Draft / applications not on prescribed form will be out rightly rejected and no correspondence in this regard shall be entertained. Institute will not be responsible for any postal delay.***