# S N Bose National Centre for Basic Sciences

(An Autonomous Research Centre aided by the Department of Science & Technology, Government of India.)

The S N Bose National Centre for Basic Sciences has completed its Silver Jubilee Year on June 13, 2011. An overview of the Centre's present status is being outlined here to facilitate young talents towards taking up careers in the challenging areas of scientific research.

## The goal

- To foster, encourage and promote growth of advanced studies in selected branches of basic sciences.
- To conduct original research in areas of theoretical and mathematical sciences and other basic sciences in frontier areas, including experimental and challenging theoretical studies of future applications.
- To provide a forum for personal contacts and intellectual interaction among scientists within the country and also between them and scientists abroad.
- To train young scientists for research in basic sciences.

#### **PRESENT STRENGTH**

Faculty -31

Ph.D Students - 151

[Faculty profiles are available on the website]

#### **RESEARCH PUBLICATIONS**

[Recent publications can be seen on the website.]



#### **Dean** (Academic Programme) Contact

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http://www.bose.res.in

#### **DEPARTMENTS / UNITS**

- Theoretical Sciences [TS]
- Condensed Matter Physics & Material Sciences [CMPMS]
  - Nano Science Unit & Theme Unit of Excellence on Nano Devices
  - Advanced Materials Science Research Unit
- Astrophysics & Cosmology [A&C]
- Chemical, Biological & Macromolecular Sciences [CBMS]





#### RESEARCH PROJECTS & EXCHANGE PROGRAMMES:

There is a large number of research projects funded by national and international agencies including some exchange programmes with leading research centres/universities all over the world.

#### **AREAS OF RESEARCH - Theory & Experiment**

- Astrophysics & Cosmology\*
- Chemical, Biological & Macromolecular Sciences\*
- Condensed Matter Physics & Material Sciences\*
- High Energy Physics & Quantum Field Theory
- **Mathematical Physics**
- Nano Sciences\*
- **Quantum Optics & Quantum Information\***
- Statistical Physics and Complex Systems

(\*Areas of research that have both experimental and theoretical components)

#### **ACADEMIC PROGRAMMES**

#### **Extended Visitors & Linkage Programme [EVLP]**

- Visitors, Associates & Students' Programme (VASP)
- Advanced Post Doctoral Manpower Programme (APMP)
- Networked Projects and Exchange Programmes (NPEP)
- Seminar and Colloqiua Programme (SCOLP)
- Conference, Workshop and Exchange Programme (CWEP)

#### Theoretical Physics Seminar Circuit [TPSC]

- To promote collaborative research
- To promote Schools/Conferences in suburban areas

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#### **STUDENTS' PROGRAMME (Residential)**

Admission to the following programmes —

- Integrated PhD Programme in Physical sciences (in collaboration with University of Calcutta) intake through JEST / NGPE, & Bose Test, a National Level Screening Test conducted by the S N Bose National Centre. The degree will be conferred by CU.
- PhD Programmes in Physical, Chemical and Biological **Sciences.** — intake through JEST/CSIR-UGC NET/ GATE/DBT-NET/ INSPIRE-SHE/Bose Test; TWAS-BOSE Fellowship.
- Summer / Fall Semester Research Projects for B.Sc/M.Sc/B.Tech & M.Tech students



### On-campus facilities for students

- Hostel with single room facility Canteen facilities, student's own mess
- Medical facilities (domiciliary & hospitalization)
- Contingency & Book grant
- Financial support towards attending national/international conferences
- Library (open for 16 hours x 6 days) with access to leading on-line journals
- Computer Centre (open for 24 hours x 7 days) with high performance computing facilities

