

INSPIRE
**Science and Astronomy Camp
for Senior School Students 2013**

Jointly organized by Bengal Engineering & Science University, Shibpur,
Birbhum Institute of Engineering & Technology, Suri and
South Howrah Citizens' Forum

*Funded by the Department of Science & Technology, New Delhi
Government of India*

ORGANIZATION: The programme will be conducted by Bengal Engineering & Science University in collaboration with Birbhum Institute of Engineering & Technology, Suri, M P Birla Institute of Fundamental Research, Kolkata, Visva-Bharati University, Shantiniketan, IISER Kolkata, Positional Astronomy Centre, Kolkata, IUCAA Pune and South Howrah Citizens' Forum.

COURSE MENTOR: Professor Amitabha Ghosh, Platinum Jubilee Senior Scientist, The National Academy of Sciences India and Honorary Distinguished Professor, Aerospace Engineering and Applied Mechanics Department, Bengal Engineering and Science University Shibpur

COURSE COORDINATOR: Professor Bichitra Kumar Guha, Professor of Physics and the Dean, Faculty of Science, Bengal Engineering and Science University, Shibpur

RESOURCE PERSONS:

- (i) Prof. Ajit Kembhavi, Director, IUCAA, Pune
- (ii) Prof. D. P. Duari, Director, Research & Academic, M P Birla Inst of Fundamental Research, Kolkata
- (iii) Prof. Narayan Banerjee, Professor of Physics, IISER, Kolkata
- (iv) Prof. Somenath Chakrabarty, Professor of Physics, Visva-Bharati, Shantiniketan
- (v) Mr. Sanjib Sen, Director, Positional Astronomy Centre, Kolkata
- (vi) Prof. Sabyasachi Sarkar, Ramanna Fellow & Hon. Distinguished Professor, Chemistry Department, Bengal Engineering & Science University, Shibpur
- (vii) Prof. Ashok Kumar Mallik, INSA Senior Scientist, S N Bose Centre for Basic Scientific Research, Kolkata
- (viii) Mr. Bipash Dasgupta, Senior Scientific Officer, M P Birla Inst of Fundamental Research, Kolkata

We are hoping the participation of Prof Somak Roychaudhury, Head, Physics Department, Presidency University, Kolkata. Besides, we will have the support of the faculty from BIET Suri and two volunteers experienced in astronomical observation – Mr. Palash Chatterjee and Mr. Biplab Kumar De.

COURSE OBJECTIVES: Though there is tremendous interest among the senior school students in astronomy and astrophysics there is almost no opportunity for observation in Eastern India. Neither are there suitable short programmes on Astronomy and Astrophysics in this part of the country. To organize short courses in Astronomy and Astrophysics and provide opportunities for astronomical observation an observational facility with good quality telescope is being set up in the Birbhum Institute of Engineering & Technology Campus at Suri, the district HQ of Birbhum about 250 km away from Kolkata. The campus provides an ideal condition for night observation as the campus is located outside the town on the bank of a big lake, free from light and other pollutions. Besides, there will be lectures in Physics, Chemistry and Mathematics on special topics related to the nature.

COURSE CONTENTS: Importance of astronomy and the fundamentals of positional astronomy; the solar system and us; introduction to astronomical telescopes; introduction to astrophysics; stars – life cycle, birth and death, classification; galaxies, galactic and extragalactic astronomy; application of planetarium software; Physics of the Sun, Chemistry of life and Mathematics of nature.

VENUE: Birbhum Institute of Engineering and Technology, Suri (BIET). All lectures and night observation sessions will be held in the BIET Lecture Hall and the roof top observatory.

DATES: 05.01.2013 (Saturday) to 09.01.2013 (Wednesday)

PARTICIPANTS: Class XI & XII students of schools in the state of the West Bengal in the Science discipline. The students who were among top 1% of the successful candidates in their respective class X Board Examinations will be eligible. A total number of approximately 60 students will be accommodated by selection from among the applicants. The required minimum marks for different boards are as follows:

- (i) WB Board – 88%
- (ii) CBSE – CGPA – A1
- (iii) ICSE – 95%
- (iv) Vishu BU – 95.1%
- (v) Jharkhand – 77.4%
- (vi) Bihar – 78.2%
- (vii) Orissa – 81.3%
- (viii) Assam – 89.5%
- (ix) Tripura – 74.4%

TRANSPORTATION & ACCOMMODATION: All participants will be required to stay in the boys' and girls' hostels in the BIET campus and all students will be strictly prohibited from going out of the campus without being accompanied by a faculty/staff with prior permission.

Bus transport from Bolpur Railway station and Suri Railway station will be arranged for the students on the day before the programme starts and on the departure day. All arrangements for board and lodge will be taken care of by the course organizers and BIET. Train and bus fares for the journey to and from Suri and free hospitality will be provided.

OBSERVATIONAL FACILITIES: Four 8 inch Celestron reflecting telescopes

TENTATIVE SCHEDULE:

January 4: Arrival of the participating students, faculty and staff at BIET Suri

	10.00 AM	11.00 AM	12.00 AM	1.00 PM	2.00 PM	3.00 PM	5.00PM	8.00 PM	9.00 PM- 4.00 AM
January 5:	Inauguration	Tea	Keynote Lec: Importance of Astronomy	Lunch	Solar system and us Lectures	Telescope introduction	Dinner	Night observation	
January 6:	Breakfast	Fundamentals of astronomy and astrophysics	Lectures	Lunch	Life cycle of stars Birth to death Lectures	Planetarium software demonstration	Dinner	Night observation	
January 7:	Breakfast	Galaxy and our universe	Lectures	Lunch	Introduction to cosmology	Planetarium software demonstration	Dinner	Night observation	
January 8:	Breakfast	Mathematics in nature & Chemistry of life	Lectures	Lunch	Earthquakes	Archaeo - astronomy	Dinner	Night observation	
January 9:	Feedback from students	Valedictory & certificate distribution	Early Lunch	Departure					

Note:

1. A proforma of the Application form is attached here with. The student has to download the form from the website or Xerox it and submit the filled-in form to the following address :
Mr. Tapan Banerjee,
South Howrah Citizens' Forum,
46, College Road,
Howrah – 711 103.
2. Only Science students reading in class XI and XII are eligible to attend the course.
3. For application to attend the course and other details please contact

Prof. Kingshuk Maity (9433344490)

Prof. Partha Guin (9330083036)

Last Date of submission of forms :21st December, 2012. The selected candidates will be informed over telephone and the list will also be displayed on the University Website www.becs.ac.in after 24th December, 2012.