

DST-INSPIRE INTERNSHIP SCIENCE CAMP - 2014



ORGANIZED BY
JAGADIS BOSE NATIONAL SCIENCE TALENT SEARCH,
GOVT. OF WEST BENGAL

UNDER INSPIRE INTERNSHIP PROGRAM
OF
DEPARTMENT OF SCIENCE AND TECHNOLOGY, GOVERNMENT OF INDIA

44th Science Camp Entitled:

‘বিজ্ঞান ভাবনা’

December 16 - 20, 2014

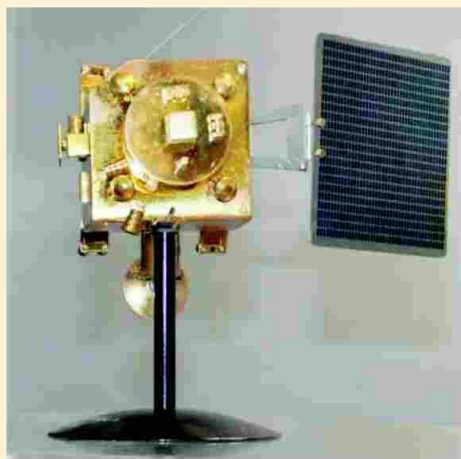
At JB Centre of Excellence for Student – Scientists



Jagadis Bose National Science Talent Search,
1300, Rajdanga Main Road, Kasba, Kolkata – 700 107
Phone : 2441 7542, 2442 8270 Fax : (033) 2442 8267
E-mail: jbnsts@vsnl.com; Website : <http://www.jbnsts.org>

About JBNSTS

Jagadis Bose National Science Talent Search (JBNSTS), Kolkata was conceptualized in 1958 by visionaries such as Dr. B C Roy, Sir J J Ghandy and others to commemorate the Birth Centenary Celebration of India's first modern scientist, Acharya J C Bose. The program was inaugurated by Pandit Jawaharlal Nehru. JBNSTS is an autonomous institute promoted by the Department of Higher Education, Government of West Bengal. It is administered by a Governing Body with representatives from the State Government, academia and industry. Since 1961, JBNSTS is awarding the prestigious Jagadis Bose Scholarships to selected group of undergraduate students of science, engineering and medicine.



In the last five decades, JBNSTS has grown to become a premiere institute of non-formal science education in the eastern and northeastern States of India with the objective towards pursuit of excellence through motivation, identification and nurture of young talented science students. It helps students to realize the importance of excellence in the scientific world and try to cultivate this in their own lives as students of science. JBNSTS also encourages students towards the learning of basic sciences and inculcates scientific spirit in the minds of young high school and undergraduate students. Focus has been given on unconventional and dynamic methods of non-formal accelerated learning through “out-of-class” activities, which have led to the recognition of intellectually sensitive and inquisitive minds. Since 2004, JBNSTS has launched an innovative middle school science Teachers Training Program which has brought into its ambit motivated teachers from the districts of West Bengal. JBNSTS has developed science kits and distributed to the teachers for demonstrating scientific principles to the middle school students in the classroom. The financial support for

most of the activities of JBNSTS is provided by the Department of Higher Education & Department of Science & Technology, Government of West Bengal. In addition, Council of Scientific & Industrial Research (CSIR), Department of Science & Technology (DST), Government of India & Industries also collaborates with JBNSTS activities.

About DST-INSPIRE Program



Innovation in Science Pursuit for Inspired Research (INSPIRE)¹ is one of the innovative programs developed by the Department of Science & Technology for attraction of talent to Science. The basic objective of INSPIRE is to attract talent to the study of science at an early age and thus build the required critical human resource pool for strengthening and expanding the Science & Technology system and Research & Development base. It is a program with a long term foresight. A striking feature of the program is that it does not believe in conducting competitive exams for identification of talent at any level. It believes in and relies on the efficacy of the existing educational structure for identification of talent.

INSPIRE Program has three schemes:

A) Scheme for Early Attraction of Talent for Science: It aims to attract talented youth to study science by providing INSPIRE award of Rs.5,000/- to one million young learners in the age group 10-15 years for a duration of five years and arrange summer and winter camps for youth in various locations for top 1% in Class X board examinations with global leaders in science to experience the joy of innovations on an annual basis through INSPIRE internship.

1. INSPIRE Award

In order to seed and experience the joy of innovation, every year two lakh school children in the age-group of 10 to 15 years i.e., 6th to 10th standards are being identified for the INSPIRE Award. Each INSPIRE Award envisions an investment of Rs.5,000/- per child. The scheme plans to reach at least two students per secondary school during the next five years.

2. INSPIRE Internship

“Motivating talented youth to take-up research as a personal undertaking” by rubbing shoulders with global icons of science including Nobel Prize Winners, is the objective of INSPIRE Internship. This component of the program aims at working as a life-long catalyzing experience for the 11th graders in science stream.

B) Scholarship for Higher Education: Scholarship for Higher Education (SHE) aims at attracting talented youth into undertaking higher education in science intensive programs, by providing scholarships and mentoring through ‘summer attachment’ to performing researchers. The scheme offers 10,000 scholarships every year @ Rs 0.80 lakh per year to talented youth in the age group 17-22 years, for undertaking Bachelor and Masters level education in Natural and Basic Sciences. However, the 18 Science subject such as (1) Physics, (2) Chemistry, (3) Mathematics, (4) Biology, (5) Statistics, (6) Geology, (7) Astrophysics, (8) Astronomy, (9) Electronics, (10) Botany, (11) Zoology, (12) Bio-chemistry, (13) Anthropology, (14) Microbiology, (15) Geophysics, (16) Geochemistry, (17) Atmospheric Sciences and (18) Oceanic Sciences, either as major/honors or their combination in BSc/Integrated MSc/Integrated MS course will be under the scope of INSPIRE Scholarship. The main feature of the scheme is mentorship support being planned for every scholar through INSPIRE scholarship.

This scheme offers 10,000 scholarships every year @ Rs.80,000/- each for undertaking Bachelor and Masters level education in the Natural & Basic sciences, possessing any of the following criteria:

- Students who happen to be among the top 1% in 12th standard at their respective Board Examinations and are pursuing courses in Natural and Basic sciences at the B.Sc. or Integrated M.Sc. levels. Courses are not included other than Natural and Basic sciences in the current scheme in view of the focus on research in Basic sciences.
- Students who have secured in the Joint Entrance Examination of JEE-Advance top 10,000 ranks, JEE-Main (top 10,000 ranks) plus those clearing NEET (top 10,000 ranks), and who also opt to study Natural and Basic sciences in any academic institute or university leading to graduate and post-graduate degree, would be eligible for scholarship.
- Students admitted to Indian Institute of Science Education and Research (IISER), National Institute of Science Education and Research (NISER), Department of Atomic Energy Centre for Basic Sciences (DAE-CBS) at the University of Mumbai or happen to be Kishore Vaigyanik Protsahan Yojana (KVPY), National Talent Search Examination (NTSE), Jagadis Bose National Science Talent Search (JBNSTS) scholars and Science Olympiad Medalists, opting to undertake courses in the Natural & Basic sciences leading to B.Sc. and M.Sc. degrees are eligible for “SHE” scholarship.

C) Assured Opportunity for Research Careers: Assured Opportunity for Research Careers (AORC) aims at attracting, attaching, retaining and nourishing talented young scientific Human Resource to strengthened the R&D foundation and base by offering doctoral INSPIRE Fellowship in the age group 22-27 years, in both Basic and Applied sciences (including engineering and medicine). It also aims at assuring opportunities for post-doctoral researchers through a scheme (similar to the New Blood program of the Royal Society of UK) through contractual and tenure track positions for five years in both Basic and Applied sciences areas through an INSPIRE Faculty Scheme.

1. INSPIRE Fellowship

INSPIRE fellowship aims at enhancing research fellowships for doctoral studies and opening up partnerships with private sector for topping the Government’s efforts in nurturing talents for scientific research. This scheme is applicable to Basic and Applied sciences as well as Medicine, Agriculture etc. with provision of multiple entries. The fellowship will be offered to (1) University 1st Ranker in a particular subject at PG level examination in Basic and Applied Science courses as well as (2) INSPIRE scholar, who have secured aggregate marks of 65 % or above at the 2 year MSc or 5 year Integrated MSc/MS.

2. INSPIRE Faculty Scheme

INSPIRE Faculty Scheme opens up an ‘Assured Opportunity for Research Career (AORC)’ for young researchers in the age group of 27-32 years. It is expected to augment high quality scientific manpower in scientific and educational institutions. It provides attractive opportunities to young achievers for developing independent scientific profiles and intends helping them emerge as S&T leaders in the long term. The Scheme offers contractual research positions. It provides career opportunities, but it is not a guarantee for tenure positions after 5 years.



Organizing Committee

Academic Committee:

Prof. (Dr.) Papiya Nandy, Hony. Director, JBNSTS
Dr. Paromita Roy, Dy. Director, JBNSTS
Dr. Abhijit Kar, Scientific Officer, JBNSTS
Dr. Smarajit Manna, Student Advisor, JBNSTS

Camp Coordinators:

Shri Joydip Das, Asst. Director (Admin), JBNSTS
Mrs. Sucharita Kundu, JBNSTS

Mentors

Prof. Siddhartha Roy
Bose Institute
Kolkata

Dr. Arindam Rana
Department of Chemistry
City College, Kolkata

Prof. Amitava Gupta
Power Engineering Department
Jadavpur University, Kolkata

Prof. Chitra Mandal
Acting Director and Scientist & Head,
Cancer and Cell Biology,
Indian Institute of Chemical Biology
Kolkata

Professor Partha Deb Ghosh
Department of Botany
Kalyani University, Nadia

Dr. Biman Basu
Author, Science Communicator and Consultant
New Delhi



Shri Samar Bagchi
President
Kishore Bharati Development Society, Kolkata

Shri. S. K. Mitra
Former Education Officer of BITM, Kolkata

Dr. Paromita Roy
Deputy Director, JBNSTS, Kolkata

Dr. Gopal Chakrabarti
Joint DPI, Higher Education Dept
Govt. of West Bengal
Kolkata

Mr. Rintu Nath
Scientist F & Div. Head
Information Systems & Laboratories
Vigyan Prasar, Noida, UP

Dr. Subhrangshu Aditya
School of Bio Sc. & Eng. And School of Cognitive Sc
Jadavpur University
Kolkata

List of Participating Schools

1. Katwa Kashiram Das Institution, Burdwan
2. Katwa D D C Girls' High School, Burdwan
3. Kakdwip Birendra Vidyaniketan, S 24 pgs
4. Debnagar MDHS School, S 24 pgs
5. Barasat P C S Govt. High School, N 24 pgs
6. Barasat M G M High School, N 24 pgs
7. Sekendarpur R K P B Institution, Hooghly
8. Tarakeswar High School, Hooghly
9. Mahesh Sri Ramkrishna Ashram Institute, Hooghly
10. Hooghly Collegiate School, Hooghly
11. Hare School, Kolkata
12. Barisha High School, Kolkata
13. Ananda Ashram Sarada Vidyapith, Kolkata
14. Balurghat High School, Uttar Dinajpur
15. Belda Gangadhar Academy, West Midnapore
16. Baramohanpur High School, West Midnapore



CAMP RULES

Welcome to the 44th DST INSPIRE Science Camp organized by JBNSTS entitled ‘বিজ্ঞান ভাবনা’

Here you will have a unique experience of learning science through active interaction with great scientists and be encouraged to share your ideas with others. No test/grade – only learning science in a different way.

General Instructions:

- The camp hours are from **09:00 a.m. to 6:00 p.m.** You are to attend all the sessions in your school uniform. **MOBILE PHONES MUST BE KEPT IN SWITCHED OFF MODE DURING ALL ACADEMIC SESSIONS.**
- Each participant has to make registration daily.
- All the participants will be divided into groups. There will be a group leader for each group selected by group members of each group.
- You will not be given any home work, but you are expected to interact freely with the experts, your group members and other groups.
- **SUBMISSION OF ALL DOCUMENTS WILL BE MADE AT REGISTRATION DESK ONLY.**
- **BOOKGRANT** : You will get a book grant of Rs. 1,500/-. For that you have to purchase books and submit the original bills at JBNSTS office.
- **On the last day i.e. 20th December, 2014 during 01.00 p.m. to 02.00 p.m. you will receive the Participation Certificate.**

Submission of important documents:

- You are required to submit an attested copy of your 10th Standard Board Examination MARK SHEET and STUDENT'S INFORMATION SHEET (with one passport size photo) during morning registration on **17th December, 2014.**
- You are required to fill up the FEED BACK SHEET and submit it on **20th December, 2014 during 01.00 p.m. to 02.00 p.m.**

Submission of Bills :

Residential Students: Travel bills (bus, auto and / or train fare only) are to be submitted along with relevant documents (tickets) on **16th December, 2014 during 10.30 a.m. to 11.30 a.m.**

Book bill(s), authorized by respective Headmaster/ Headmistress, are to be submitted on **18th December, 2014** during morning registration.

Non-residential Students: Travel bills (bus, auto and / or train fare only) are to be submitted on **19th December, 2014** during morning registration.

Book bill(s), authorized by respective Headmaster/ Headmistress, are to be submitted on **18th December, 2014** during morning registration.

Reimbursements:

- Residential Students: All Reimbursement will be made on **19th December, 2014 after the camp hours.**
- Non-residential Students: **BOOKGRANT** – on **19th December, 2014** after the camp hours & **TA** on **20th December, 2014** during lunch break.

In case, any assistance / clarification are needed, you may contact our accounts section.



BRIEF INTRODUCTION TO THE EXPERTS

DR. PAPIYA NANDY

Prof. Papiya Nandy received her Masters degrees in Physics from University of Calcutta and University of California at Santa Barbara and Ph.D. on Liquid Crystals from Kent State University, USA. Her post-doctoral work was in Experimental Biophysics from Max Planck Institute, Gottingen, Germany. Later she was Associate Professor of Physics in University of Ulm, Germany. After coming back to India, she joined Physics department in Jadavpur University. Her field of research encompasses membrane biophysics. She is currently the Hony. Director of JBNSTS, of which she is a scholar from the first batch in 1960. Here her objective is to make JBNSTS a vibrant and dynamic institute and to motivate, identify and nurture young talented science students and establish the base of scientific enquiry and culture of tomorrow.

DR. SIDDHARTHA ROY

Prof. Siddhartha Roy is presently associated with Bose Institute, Kolkata. He is the former Director of Indian Institute of Chemical Biology. He was associated with the scientific research in Structural Biology & Bio-Informatics Division of that institute. He did his Ph.D from University of Delaware; Newark, F.N.A, F.A.Sc. In his academic career, he received several awards/fellowships like Meritorious Service Award in 1986 from Dept. of Health & Human Service USA, Human Frontier Services Fellowship in 1993 and the Santi Swarup Bhatnagar Prize in 1999. His current research interests include Macromolecular Interaction: Recognition and Engineering and Drug Development. He has numerous scientific publications in renowned journals.

DR. ARINDAM RANA

Dr. Arindam Rana is presently Associate Professor of Chemistry at City College, Kolkata. He did his M.Sc from Calcutta University, Ph.D. research at IACS, Kolkata and received Ph. D degree from Jadavpur University. He went to Univ. of Notre Dame, Indiana, USA for post doctoral research. He has 6 papers in International journals. In his academic career he occupied several positions such as Honorary guest faculty in chemistry at the HS section of St. Lawrence High School & Mahadevi Birla Sisu Vihar. Dr. Rana is actively engaged in science outreach programmes of Ratnasagar Pvt. Ltd. and recognized by TIFR as one of the most inspiring teachers on the occasion of the birth centenary of Homi J. Bhabha in 2009.

DR. AMITAVA GUPTA

Prof. Amitava Gupta is presently the Professor, Dept. of Power Engineering and Director, School of Nuclear Studies & Applications, Jadavpur University. After completed his graduation in Electrical Engineering from Jadavpur University, he did his Master of Technology from IIT Kanpur and received his Ph.D. from Dept. of Computer Sc. & Engg., Jadavpur University. During his professional career, he was also associated with Centre for Development of Advanced Computing and Nuclear Power Corporation of India. Prof. Gupta has received various awards & honors. Prof Gupta is the reviewer of several International Journals and was nominated as course expert for CSE and IT. He has more than 40 research publications in peer reviewed journals. He has guided 8 Ph.D. Thesis and 20 Masters Thesis. He is the founder of Microprocessors & Digital Systems laboratory and Simulator Laboratory of Jadavpur University.

DR. CHITRA MANDAL

Prof. Chitra Mandal is currently the Acting Director and Professor & Head, Cancer and cell Biology Division, Indian Institute of Chemical Biology, Kolkata. She did her M.Sc. in Organic Chemistry, Ph.D. in Bio-Organic Chemistry from Indian Institute of Science, Bangalore and post-dock on molecular Immunology at University of Pennsylvania, USA. Main theme of her research group is to understand the mystery of glycosylation of biomolecules to investigate disease-related problems. She has opened up new avenues in sialoglycobiology.

Dr. Mandal is an elected fellow of all three Indian academies (The Indian Academy of Sciences, National Academy of Sciences and Indian National Science Academy) and West Bengal Academy of Science and Technology. She is a recipient of prestigious “Sir J.C. Bose National Fellowship” Award (2010) by DST, Dr. Yellapragada Subba Rao Memorial Lecture Award (2011) by INSA, “Senior Scientist Oration Award” (2008) by Indian Immunology Society, ‘BioTech Product and Process Development and Commercialization Award’ (2005) by DBT, ‘Kshanika Oration Award’ (2002) by ICMR, The P. B. Rama Rao Memorial Award (2001) by S.B.C and ‘Smt Chandaben Mohanbhai Patel Industrial Research Award’ (2000) by VASVIK.

DR. PARTHA DEB GHOSH

Prof. Partha Deb Ghosh is the Senior Professor of Botany at the Department of Botany, University of Kalyani, West Bengal and worked in the field of plant genetics and Biotechnology. He has done extensive work on in vitro culture, genetic transformation of plants, molecular markers and supervised research of Masters and Doctoral students. He has published 3 books/ manuals on plant genetics and biotechnological aspects and published more than 270 research papers in different national and international journals. Prof. Ghosh has availed fellowship offered by UGC Indo-Uk exchange programme (1977-78), DST young scientist awards(1984), DBT training programme. He is fellow of Linnean society (London), Association of plant tissue culture and biotechnology (India). Prof. Ghosh has been awarded the INSA gold medal for outstanding contribution of plant tissue culture and mutation research, life time achievement Award by DST and honoured by different universities.

DR. BIMAN BASU

Dr. Biman Basu is the former scientist of the Council of Scientific and Industrial Research (CSIR). Dr. Basu has been involved in science communication through his popular science writings, radio talks and popular lectures for more than four decades. He has to his credit more than 1,200 popular science articles and over 1,000 radio talks and features. He has also been appearing in science programs on Doordarshan and Lok Sabha TV. He has written more than 45 popular science books. He was the editor of a popular science monthly *Science Reporter* (published by CSIR) for more than 30 years. He is the winner of many prestigious awards & honors like ‘NCSTC National Award for Science Popularisation’, ‘Kishore Jnan Bijan Award’, ‘AWIC Honour 2007’ etc. Dr. Basu has been associated with several organizations including the National Book Trust, Bal Bhawan Society, National Open Schools, Indira Gandhi National Open University, National Council of Science and Technology Communication (DST), Vigyan Prasara, National Council of Educational Research and Training (NCERT), and the National Science Centre, Delhi. He has also delivered talks on ‘Popular Science Writing’ for training courses organized at the National Institute of Science Communication (NISCOM), Human Resource Development Centre of CSIR, Defence Scientific Information and Documentation Centre (DESIDOC), Indian Institute of Mass Communication (IIMC), and Staff Training Institute of All India Radio.

SHRI SAMAR BAGCHI

Shri Samar Bagchi is presently the President of Kishore Bharati Development Society. He is the former Director of Birla Industrial & Technological Museum and at that time another 5 science museums in eastern India were under his jurisdiction. He is connected with science popularization and is a board member of several educational institutions. Shri Bagchi has organized the popular science quiz program “Quest” in Doordarshan from 1983 – 88. In 1992, he has got National Award for his contribution in Science Popularization through Mass Medium. He is a member of the Advisory Committee in NCERT and Council of Science & Technology, Govt. of W. Bengal. He is also an environmental & social activist.

SHRI SANTOSH KUMAR MITRA

Shri Santosh Kumar Mitra started his professional career as an Education Assistant in BITM in 1959 and retired from the same institution as the Senior Education Officer in 1998. Since 1965 he was involved in various sciences education activities for supplementing school science education. He was actively associated in innovations of many science experiments for “Quest”, a very popular science quiz program, telecasted by Doordarshan. He was nominated to participate in various national and international workshops like Indo-American Workshop on “Science Education through Science Centers” held at Mumbai in 1987, Indo-US workshop on “Ideas for developing chemistry exhibits” in science centers at Exploratorium, Sanfrancisco, LA in 1989. He was honored by American Chemical Society in recognition of organizing and performing highest numbers of outreach programs in chemistry. IYC Vigyan Prasar, Noida, Govt. of India selected him to act as ‘resource person’ for different workshops in Allahabad, Jammu, Vadodara and Mumbai. Vigyan Prasar has video recorded about 180 chemical experiments demonstrated by Shri Mitra and the DVDs are distributed to chemistry teachers through out India.

DR. PAROMITA ROY

Dr. Paromita Roy is a Ph.D. in Psychology from Delhi University. She is presently the Deputy Director of Jagadis Bose National Science Talent Search (JBNSTS), Kolkata, the first science talent search institute in India. She has more than twenty years of experience in working with talented students and has been responsible for developing programs for them. She is also actively involved in teacher development through workshops and training programs. Her major areas of focus are educational psychology, psycho-social development and pedagogical issues related to talented and gifted minds. She is actively involved in guidance and counselling of students and their parents, curriculum planning and strategy development. Her rich experience in working “on field” with high ability and talented students from the ages of 14 -21 years has made her one of the key people who has a direct inter-phase with India’s population of talented students.

Earlier in 2014, she was the main organizer of the First International Conference on Research in Education and Curriculum Planning for Gifted Minds, held in New Delhi and Kolkata wherein she planned and put together an event with 18 eminent international and as many national experts as speakers. She has also been the editor in chief of the “Conference Book of Abstracts” which is a rich compilation of article abstracts in the field of global giftedness research and practice.

DR. GOPAL CHAKRABARTI

Dr. Gopal Chakrabarti is the Associate Professor in Geology, officiating as Joint DPI (Scholarship & Stipend) under Education Directorate, Government of West Bengal. Dr. Chakrabarti received his Ph.D from Jadavpur University. During his professional career, Dr. Chakrabarti was associated with University of Calcutta, J. K. College, Purulia, Durgapur Govt. College etc. His field of research encompasses different areas of Sedimentology. Dr. Chakrabarti has received National Scholarship and many other awards during his academic career. He has lots of research publications in different national and international journals. Dr. Chakrabarti has been invited as the committee member of different International Geological Organizations.

SHRI RINTU NATH

Shri Rintu Nath is a Scientist (F) with Vigyan Prasar, an organisation under the Department of Science and Technology, Government of India. As a professional Engineer, he is interested in the field of data acquisition system, cloud computing and communication techniques. He is actively involved in developing and disseminating innovative open ended science experiments for joyful learning by students. A number of kits, interactive CDs and workshop modules developed by him have become integral part of nationwide training and sensitisation programs. He is also a popular science writer and regularly writes for a number of magazines and journals.

DR. SUBHRANGSU ADITYA

Dr. Subhrangsu Aditya an M.B.B.S. from NRS Medical College (2000), a senior JBNSTS scholar (1995) is currently pursuing his research at School of Bio Science & Engineering, Jadavpur University and he is a guest faculty for the M. Phil. Course in Cognitive Science in the School of Cognitive Science, Jadavpur University. He is also a guest faculty for the Advanced Diploma Course in Stress Management in the Center for Counseling Services and Studies in Self-Development, Jadavpur University (CCSSS-JU). He is an associate member of SAMIKSHANI Centre for Psychoanalytical Studies and Mental Therapy. He has publications in various international journals, conference proceedings and book chapters. His current areas of interest are Cognitive Neuroscience, Biosignal Processing, Artificial Intelligence, Psychological Counselling, Stress Management, Cyber-relationship etc. Dr. Aditya is a JBNSTS Scholar of batch 1995.

Day to Day Program

Day 1 : Tuesday, December 16, 2014

- 09:00 a.m. – 10:00 a.m. Registration
- 10:00 a.m. – 11:30 a.m. **Welcome Address by the Hony. Director, JBNSTS and Orientation**
- 11:30 a.m. – 01:00 p.m. **“Genes, Genomes, Epigenomes and beyond.....”**
Prof. Siddhartha Roy, Bose Institute, Kolkata
- 01:00 p.m. – 02:00 p.m. Lunch & Interaction
- 02:00 p.m. – 06:00 p.m. **“Chemistry Revealed Through Experiments”**
Dr. Arindam Rana, Department of Chemistry, City College, Kolkata

Day 2 : Wednesday, December 17, 2014

- 09:00 a.m. – 10:00 a.m. Registration
- 10:00 a.m. – 11:30 a.m. **“No Child's Play”**
Prof. Amitava Gupta, Department of Power Engineering, Jadavpur University, Kolkata
- 11:30 a.m. – 01:00 p.m. **“Contributions from Indian Research in Addressing Health Problems”**
Prof Chitra Mondal, Acting Director and Scientist & Head, Cancer and Cell Biology, IICB
- 01:00 p.m. – 02:00 p.m. Lunch & Interaction
- 02:00 p.m. – 06:00 p.m. **“Natural Product Resources and its Conservation”**
Prof. Partha Dev Ghosh, Department of Botany, Kalyani University, Kalyani

Day 3 : Thursday, December 18, 2014

- 09:00 a.m. – 10:00 a.m. Registration
- 10:00 a.m. – 01:00 p.m. **“The Thrill of Doing Science”**
Dr. Biman Basu, Author, Science Communicator and Consultant, New Delhi
- 01:00 p.m. – 02:00 p.m. Lunch & Interaction
- 02:00 p.m. – 06:00 p.m. **“Demonstration of Science Experiments”**
Shri Samar Bagchi, President, Kishore Bharati Development Society, Kolkata
Shri S. K. Mitra, Former Education Officer of BITM, Kolkata

Day 4 : Friday, December 19, 2014

- 09:00 a.m. – 10:00 a.m. Registration
- 10:00 a.m. – 01:00 p.m. **“Hands On Activity at Innovation Hub”, BITM, Kolkata**
- 01:00 p.m. – 02:00 p.m. Lunch & Interaction
- 02:00 p.m. – 06:00 p.m. **“Hands On Activity on Mathematics”**
BITM Team, Kolkata
- 03:00 p.m. – 05:00 p.m. **Interactive session with the Parents of participating students at JBNSTS**
Dr. Paromita Roy, Deputy Director, JBNSTS, Kolkata

Day 5 : Saturday, December 20, 2014

- 09:00 a.m. – 10:00 a.m. Registration
- 10:00 a.m. – 11:30 a.m. **“The Deep Time: How Old Is Old?”**
Dr. Gopal Chakrabarti, Joint DPI, HE Department, GOWB
- 11:30 a.m. – 01:00 p.m. **“Moments in Mathematics”**
Mr. Rintu Nath, Scientist E & Div. Head, Information Systems & Laboratories, Vigyan Prasar
- 01:00 p.m. – 02:00 p.m. Lunch & Interaction
- 02:00 p.m. – 03:30 p.m. **“A PC Interface for Scientific Experiments”**
Mr. Rintu Nath, Scientist E & Div. Head, Information Systems & Laboratories, Vigyan Prasar
- 03:30 p.m. – 06:00 p.m. **“How to choose your career?”**
Dr. Subhrangshu Aditya, School of Bio-Sc. & Eng. and School of Cognitive Sc, JU, Kolkata

‘বিজ্ঞান ভাবনা’

‘বিজ্ঞান ভাবনা’

A DST-JBNSTS Science Camp

(16th – 20th December, 2014)

JB Centre of Excellence for Student-Scientists,
1300, Rajdanga Main Road, Kasba, Kolkata 700 107

Paste
Stamp-size
Photograph
here

Student's information sheet

Name of the student (in block letters):

Permanent address with contact number and e-mail Id(mandatory):

School's name (in block letters) & Address with pin code & phone no.:

Percentage of marks obtained in the 10th standard Board examination held in 2014:

Percentage of marks obtained in science subjects:

Favorite subject:

Who is your role model in science?

Would you like to pursue a career in science?

What is your expectation from a science camp?

स जीवति मनो यस्य मननेन हि जीवति

Have you heard about JBNSTS before the camp? How?

Signature of Student

A DST-JBNSTS Science Camp

‘বিজ্ঞান ভাবনা’

(16th – 20th December, 2014)

JB Centre of Excellence for Student-Scientists,
1300, Rajdanga Main Road, Kasba, Kolkata 700 107

INSPIRE INTERN'S FEED BACK FORM

1. Name and Address of the Host Institute:
2. Date/Duration of the INSPIRE Internship Camp:
3. Name and Address of the student (With school name, e-mail address & Mob. No.):
4. Comments about the Infrastructural capacity of the organizing Institute:
5. Comments on the boarding and lodging facilities made available:
6. Comments about the Payment of Traveling cost to the participating students:
7. Comments on the interactive talks delivered by the Mentors

8. Comments on the practical demonstrations/hands on experience:

9. Students views on the INSPIRE Internship Camp:

10. Comments about the scientific discussions with the Mentors:

11. Suggestions to further improve the INSPIRE Internship camps:

12. Overall impact of the INSPIRE Internship Camp:

.....
(Signature of the Student)