



DST-INSPIRE INTERNSHIP SCIENCE CAMP - 2015

Organized By

**JAGADIS BOSE NATIONAL SCIENCE TALENT SEARCH,
GOVERNMENT OF WEST BENGAL**

**UNDER INSPIRE INTERNSHIP PROGRAM
OF**

DEPARTMENT OF SCIENCE AND TECHNOLOGY, GOVERNMENT OF INDIA



49th Science Camp Entitled:
“Learning Science”

November 30 - December 04, 2015

At JB Centre of Excellence for
Student — Scientists

Jagadis Bose National Science Talent Search

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“Learning Science”

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) 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 :

I. 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.

a) 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.

b) 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.

II. 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.

III. 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.

a) 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.

b) 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.



“Learning Science”

Organizing Committee

Academic Committee:

Prof. (Dr.) Maitree Bhattacharyya, Director, JBNSTS

Dr. Paromita Roy, Dy. Director, JBNSTS

Dr. Abhijit Kar, Scientific Officer, JBNSTS

Dr. Smarajit Manna, Student Advisor, JBNSTS

Camp Coordinator:

Mr. Dipankar Sarkar

Mentors

Dr. Maitree Bhattacharyya

Professor & Director

Jagadis Bose National Science Talent Search, Kolkata

Dr. Paromita Roy

Deputy Director

Jagadis Bose National Science Talent Search, Kolkata

Dr. Partha Chakrabarti

Senior Scientist, Cell Biology & Physiology Division

Indian Institute of Chemical Biology, Jadavpur, Kolkata

Dr. Pradyut Ghosh

Professor, Department of Inorganic Chemistry

Indian Association for the Cultivation of Science,

Jadavpur, Kolkata

Dr. Bichitra Kumar Guha

Professor of Physics & Dean, Faculty Affairs

Indian Institute of Engineering Science and Technology, Shibpur,
Howrah

Shri Samar Bagchi

President

Kishore Bharati Development Society, Kolkata

Dr. B. B. Bhattacharya

INAE Distinguished Professor,

S.N. Bose National Centre for Basic Sciences, Kolkata

Dr. Soumitra SenGupta

Sr. Professor and Dean (Academic & Students Affairs)

Department of Theoretical Physics,

Indian Association for the Cultivation of Sciences, Kolkata

Dr. Gautam Basu

Senior Professor and Chairman

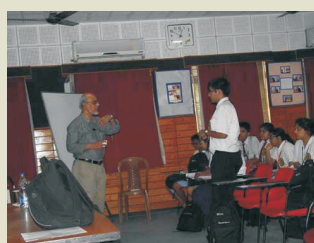
Department of Biophysics,

Bose Institute, Kolkata

Dr. Samir Kumar Pal

Professor, Department of Chemical, Biological & Macromolecular
Sciences,

S. N. Bose National Centre for Basic Sciences, Kolkata



Dr. Parthasarathi Mukhopadhyay

Associate Professor

Department of Mathematics

RK Mission Residential College, Narendrapur, Kolkata

Dr. Prithwijit De

Reader

Homi Bhabha Centre for Science Education

Tata Institute of Fundamental Research, Mumbai

CAMP RULES

Welcome to the 49th Science Camp of JBNSTS entitled 'Learning Science'

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.
- An academic visit to Centre for Research in Nanoscience & Nanotechnology, Calcutta University, Salt Lake Campus, Kolkata has been arranged on **3rd December, 2015.** The departure time from JBNSTS to CRNN will be 9.00 a.m. sharp. All the participants are required to complete their registration formalities by 8.45 a.m. on that day.
- 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 AND REIMBURSEMENT WILL BE MADE AT **REGISTRATION DESK ONLY.**

Submission of important documents:

- You are required to submit an attested copy of your 10th Standard Board Examination Mark Sheet, INSPIRE Registration Form endorsed by your Principal/HM and filled-in STUDENT'S INFORMATION SHEET during **lunch break on 30th November, 2015.**

BOOK BILL :

- All the participants will receive a **Book Grant of Rs. 1,500/-.** For that all the participants have to submit the original bills for the book(s), already purchased, during **lunch break (01.00 p.m. to 02.00 p.m.) on 1st December, 2015.**

TRAVEL BILL :

Residential Students: Travel bills (as per instruction communicated to HM) are to be submitted along with relevant documents (tickets etc.) **during morning registration of 1st December, 2015.**

Non-residential Students: Travel bills (bus, auto and/or train fare only) are to be submitted **during morning registration of 2nd December, 2015.**

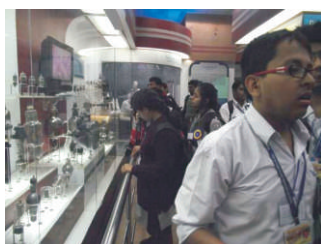
You are required to fill up the FEED BACK SHEET and submit it on 4th December, 2015 during 01.00 p.m. to 02.00 p.m.

Reimbursements:

- Reimbursement for Travel expenses and Book Grant (school wise) will be made on the following date & time:
 - **Residential Students : On 3rd December, 2015 during 05.30 p.m. to 06.00 p.m.**
 - **Non-residential Students : On 4th December, 2015 during 01.00 p.m. to 02.00 p.m.**

In case, any payment related assistance / clarifications are needed, you may contact our accounts section.

On the last day i.e. 4th December, 2015 you will receive the Participation Certificate.



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BRIEF INTRODUCTION TO THE EXPERTS

DR. MAITREE BHATTACHARYYA

Dr. Maitree Bhattacharyya is presently a Professor and Director of Jagadis Bose National Science Talent Search. She graduated from Presidency College with Honours in Physics and obtained M.Sc. degree from Calcutta University. Started research career in Department of Biophysics and Molecular Biology, Calcutta University with a Ph.D. degree in 1991. She pursued research with Research associateship from CSIR and joined Calcutta University as an Assistant Professor in 1994 to start with independent research laboratory. Later on, she was awarded DBT Overseas fellowship and worked as Visiting Scientist in UCSD, USA. Now she is the Professor, Department of Biochemistry, University of Calcutta (On lien). Ten students have already been awarded Ph.D. degree under her supervision and now she is leading a group of ten research scholars which comprises of Ph.D. and post doctoral students. She has published several research articles and chapters in books of International repute. Her research interests include (i) Study of microbial diversity in coastal and estuarine water and soil sediment in the world heritage site, Sundarbans. Exploration of dynamic correlations among physical, chemical and biological domains of this estuarine ecosystem. Inventorisation of microbial diversity along Indian coast; (ii) Identification of risk factors and biomarkers in the disease dynamics of diabetes associated cardiovascular disease and dyslipidemia; (iii) Application of green chemistry in bioremediation and biotransformation of heavy metal toxicity in industrial effluent, green synthesis of nanoparticles and (iv) Protein structure- function and interactions with special interest to heme proteins, bio molecular interaction.

Apart from academic research and teaching, she aims,

- To develop Scientific and Technological sphere of India especially the human resource to the level of highest possible International Standard.
- To develop Science and Technology of modern India so as to make India self-reliant to the extent possible in all spheres including Agriculture, Industry and Medicine.
- To inculcate scientific and rational temper within the younger section of the population towards developing a modern India based on logical foundation, objective and realistic state of mind and against all kinds of superstition, obscurantism and illogical thinking and actions.

DR. PAROMITA ROY

Paromita Roy, a PhD in Psychology from Delhi University, India, is Deputy Director of Jagadis Bose National Science Talent Search (JBNSTS), Kolkata where she has experience working with high ability students of science for the past 22 years. She develops programs for multicultural gifted and high ability science students and is involved in teacher development. Her research interests include talent identification and nurture, developing concepts of giftedness and enrichment programs for such students. A member of the European Council of High Abilities, The International Research Association for Talent Development, Paromita Roy has participated and presented her work on gifted students in several international forums. She has also been an INSPIRE mentor for nearly 7 years and has two chapters in international publications. She is the principal investigator from India of a Cross Nation Study on Teacher Perceptions on Giftedness, a research project from University of Erlangen-Nuremberg, Germany.

DR. PARTHA CHAKRABARTI

Dr. Partha Chakrabarti completed his MBBS degree from Medical College Calcutta and MD from Banaras Hindu University. He then moved to USA to pursue PhD from Boston University School of Medicine. He joined Indian Institute of Chemical Biology as a senior Scientist in 2011 and started his own research there. His research interests are metabolic disorders including Diabetes and Obesity.

DR. PRADYUT GHOSH

Dr. Pradyut Ghosh is presently a Professor of Inorganic Chemistry and Associate Dean (administration) at Indian Association for the Cultivation of Science, Kolkata. He did B.Sc. & M. Sc. (Chemistry) from Calcutta University in 1990 and 1992 respectively. He obtained his Ph.D. degree from Indian Institute of Technology, Kanpur in 1998. Dr Ghosh is the recipient of many prestigious awards including Shanti Swarup Bhatnagar Prize in 2015. His Research Interests include Recognition of Anions, Molecular Capsules, Chemical Sensing of Ions, Extraction of Inorganic Salts, Supramolecular Aggregations, and Interlocking Molecules. Dr. Ghosh has published several research articles in national and international peer reviewed journals.

DR. BICHITRA KUMAR GUHA

Prof. Bichitra Kumar Guha has been a topper throughout his career. He has been a gold medalist of the Calcutta University standing first class first in B.Sc. (Hons.) from Presidency College. He did his M.Sc. and M.Phil. from University of Delhi and Ph.D. from Calcutta University. His works on technology of hi- tech ferroelectric materials have been acclaimed internationally. He has authored a number of research papers and a text book and guided several students for doctoral works. He has been the Dean, Faculty of Science in Bengal Engineering and Science University, Shibpur and is now the Dean, Faculty Affairs of the same Institute which is now an Institute of National Importance under the name of Indian Institute of Engineering Science and Technology.

SRI SAMAR BAGCHI

Sri 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.

DR. BIMALENDU BHUSAN BHATTACHARYA

Dr. Bimalendu Bhusan Bhattacharya did his B.Sc. in Physics and M.Sc. in Geophysics from Banaras Hindu University and Ph.D. in Physico-Mathematical Sciences from Leningrad State University, USSR (Presently St. Petersburg University, Russia). His major research interests include Goelectromagnetism, Mining Geophysics, Engineering Geophysics, Environmental Geophysics and Interpretation of Geophysical Data using Nonlinear Inversion, Computer Simulation and Modeling. He has done pioneering work during Indian Antarctica Expedition as leader. He has worked as Scientist in National Geophysical Research Institute (NGRI), Hyderabad and Director in Indian School of Mines (ISM), Dhanbad. Currently he is Emeritus Professor (CSIR Emeritus Scientist) and INAE Distinguished Professor in S. N. Bose National Centre for Basic Sciences, Kolkata. He has worked different parts of the globe and held distinguished positions such as Visiting Professor, Department of Physics in University of Alberta Edmonton, Canada, Leader, Fourth Scientific Indian Antarctica Expedition, Government of India; Visiting Professor (Fulbright) Department of Geology & Geophysics in University of Wisconsin, Madison Wisconsin, USA and Guest Faculty in Bengal Engineering and Science University, Shibpur, Howrah, W.B. Among many distinguished awards, he has got National Mineral Award, Dept. of Mines, Govt. of India, Distinguished Service Award Indian School of Mines, Dr. Coggin Brown Gold Medal on Earth Sciences, MGMI; Decennial Award, Association of Exploration Geophysicists, etc. He is a member of the editorial committee of The Journal of Geological Society of India, recipient of distinguished professor's chair by Indian National Academy of Engineering (INAE).

DR. SOUMITRA SEN GUPTA

Dr. Soumitra Sengupta is presently a Senior Professor at the Department of Theoretical Physics and Dean, Academic & Students Affairs at Indian Association for the Cultivation of Science (IACS), Kolkata. He did his B.Sc. from Presidency College, M.Sc. from Calcutta University and Ph.D. from Saha Institute of Nuclear Physics, Kolkata. His academic career includes several distinguished positions such as Sr. Lecturer at the Department of Physics, Presidency College, Kolkata; Sr. Lecturer & Reader at the Department of Physics of Jadavpur University; Reader, Professor and Sr. Professor at Department of Theoretical Physics, IACS, Kolkata. He is a fellow of The National Academy of Sciences, India. His current research interest includes String Theory, Supersymmetry, Supergravity, Braneworld Phenomenology, Cosmology and Black holes. Dr. Sengupta has several research publications in national and international peer reviewed journals.

DR. GAUTAM BASU

Dr. Gautam Basu is a Professor of Biophysics at Bose Institute, Kolkata, with research interest in molecular biophysics, structural biology and computational biology. After a bachelor's degree in chemistry from Presidency College, Dr. Basu earned a masters degree in chemistry from IIT Kanpur and a Ph.D. degree in Biophysical Chemistry from Cornell University, USA.

DR. SAMIR KUMAR PAL

Dr. Samir Kumar Pal is a Professor at the Dept. of Chemical, Biological & Macromolecular Sciences of S. N. Bose National Centre for Basic Sciences, Kolkata. He did M.Sc. in Physics in 1994 and Ph. D. in 2000 on Laser Spectroscopy (picosecond). During the year 2000 – 2003, he worked as a Post-Doctoral Fellow at California Institute of Technology (CALTECH), U.S.A. under Prof. A. H. Zewail, Nobel Laureate in Chemistry in 1999. He is a Regular Visiting Professor of CALTECH, USA; TU Brunswick, Germany; University Aarhus, Denmark; Durham University, UK; University Leiden, Netherlands etc. His research interests include Ultrafast Spectroscopy of Molecules and Nanomaterials, Solar Devices and Biomedical Instrumentation. 14 students have already obtained their Ph.D. degree (all settled in abroad) and 12 scholars are working for the same under the able guidance of Dr. Pal. He has 170 research publications in international Peer-referred Journals, 5 Books and 14 Patents (including one has been approved). Dr. Pal was awarded with UKERI in 2007 for his work in the field of Nano-science. He is one of the editors of EPJ techniques and Instrumentation (Springer, London), Advances in Physical Chemistry (Hindawi, USA). He has been refereed in nos. of journals such as Nature, Angew. Chem., Journal of the American Chemical Society, Journal of Physical Chemistry, Journal of Chemical Physics, Biochemistry etc.

DR. PARTHASARATHI MUKHOPADHYAY

Dr. Parthasarathi Mukhopadhyay is the Associate Professor of Mathematics in Ramkrishna Mission Residential College, Narendrapur. He is also a guest faculty (Post Graduate) at Ramkrishna Mission Vidyamandir, Belur Math. Dr. Mukhopadhyay did his M.Sc. in Pure Mathematics, M. Phil. & Ph.D. in Mathematics from C.U. He published lots of research papers in National & International journals. He also published books for undergraduate level and school level. He attended many conferences & seminars at National & International level. He is a life time member of the Calcutta Mathematical Society.

DR. PRITHWIJIT DE

Dr. Prithwijit De is a faculty member at the Homi Bhabha Centre for Science Education, Tata Institute of Fundamental Research. He is a member of the Mathematical Olympiad Cell. He loves to interact with students as much as he loves to solve mathematical problems.

“Learning Science”

Day to Day Program

Day 1 : Monday, November 30, 2015

09:00 a.m. – 10:00 a.m.	Registration
10:00 a.m. – 10:30 a.m.	Welcome Address Dr. Maitree Bhattacharyya , Professor & Director, Jagadis Bose National Science Talent Search, Kolkata
10:30 a.m. – 11:30 a.m.	“Creativity, Choice and Career” Dr. Paromita Roy , Deputy Director, Jagadis Bose National Science Talent Search, Kolkata
11:30 a.m. – 01:00 p.m.	“The Triple Helix of Diabetes: Gene, Environment and Us” Dr. Partha Chakrabarti , Senior Scientist, Cell Biology & Physiology Division Indian Institute of Chemical Biology, Jadavpur, Kolkata
01:00 p.m. – 02:00 p.m.	Lunch & Interaction
02:00 p.m. – 03:30 p.m.	“Evolution of a New Branch of Chemistry: The Nobel Prize in 1987” Dr. Pradyut Ghosh , Professor, Department of Inorganic Chemistry Indian Association for the Cultivation of Science, Kolkata
03:30 p.m. – 05:00 p.m.	“Evolution of Science since the days of Aristotle” Dr. Bichitra Kumar Guha , Professor of Physics & Dean, Faculty Affairs Indian Institute of Engineering Science and Technology, Shibpur, Howrah
05:00 p.m. – 06:00 p.m.	Summing up Session



Day 2 : Tuesday, December 01, 2015

09:00 a.m. – 10:00 a.m.	Registration
10:00 a.m. – 01:00 p.m.	“Demonstration of Science Experiments” Shri Samar Bagchi , President, Kishore Bharati Development Society, Kolkata
01:00 p.m. – 02:00 p.m.	Lunch & Interaction
02:00 p.m. – 03:30 p.m.	“Exploration Antarctica: Adventure and Science” Dr. B. B. Bhattacharya , INAE Distinguished Professor, S.N. Bose National Centre for Basic Sciences, Kolkata
03:30 p.m. – 05:00 p.m.	“Einstein’s Universe” Dr. Soumitra SenGupta , Senior Professor & Dean (Academic & Students Affairs), Department of Theoretical Physics, Indian Association for the Cultivation of Sciences, Kolkata
05:00 p.m. – 06:00 p.m.	Summing up Session



Day 3 : Wednesday, December 02, 2015

09:00 a.m. – 10:00 a.m.	Registration
10:00 a.m. – 11:30 a.m.	“Art in Science” Dr. Gautam Basu , Professor & Chairman, Department of Biophysics, Bose Institute, Kolkata
11:30 a.m. – 01:00 p.m.	“The Best out of Waste: Your Vision does Matter” Dr. Samir Kumar Pal , Professor, Dept. of Chemical, Biological & Macromolecular Sciences, S. N. Bose National Centre for Basic Sciences, Kolkata
01:00 p.m. – 02:00 p.m.	Lunch & Interaction
02:00 p.m. – 05:00 p.m.	“Prime Number – A Gateway to Cryptography” Dr. Parthasarathi Mukhopadhyay , Associate Professor, Department of Mathematics R K Mission Residential College, Narendrapur, Kolkata
05:00 p.m. – 06:00 p.m.	Summing up Session



Day 4 : Thursday, December 03, 2015

09:00 a.m. – 10:00 a.m.	Registration
10:00 a.m. – 01:00 p.m.	Academic Visit to Centre for Research in Nanoscience & Nanotechnology, Calcutta University, Salt Lake Campus, Kolkata
01:00 p.m. – 02:00 p.m.	Lunch & Interaction
02:00 p.m. – 06:00 p.m.	Continuation of the Academic Visit to CRNN, Kolkata



Day 5 : Friday, December 04, 2015

09:00 a.m. – 10:00 a.m.	Registration
10:00 a.m. – 11:30 a.m.	“Pythagorean Triples and much more” Dr. Prithwijit De , Reader, Homi Bhabha Centre for Science Education Tata Institute of Fundamental Research, Mumbai
01:00 p.m. – 02:00 p.m.	Lunch & Interaction
02:00 p.m. – 06:00 p.m.	“Pythagorean Triples and much more” (Contd...)