

DST-INSPIRE INTERNSHIP SCIENCE CAMP - 2016



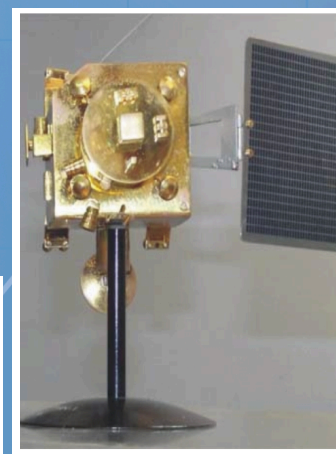
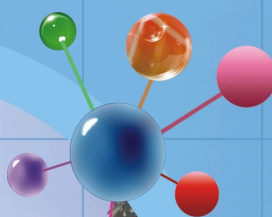
Department of
Science & Technology
Government of India



Jagadis Bose
National Science Talent Search
Government of West Bengal

51st Science Camp
"Learning Science"
May 17 - 21, 2016

At JB Centre of Excellence for Student – Scientists



Jagadis Bose National Science Talent Search

1300, Rajdanga Main Road, Kasba, Kolkata – 700 107 Phone : 2442 8270, 2441 7542
Fax : (033) 2442 8267 E-mail: jbnsts@jbnsts.org Website : <http://www.jbnsts.org>

“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. In the last five and half decades, JBNSTS has grown to become a premiere institute of non-formal science education in India with the objective towards pursuit of excellence through motivation, identification and nurture of young talented science students. Since 1961, JBNSTS has been conducting Senior Scholarship program in West Bengal for undergraduate students of science, engineering and medicine. This organization is considered as the oldest and first talent search institute of India and this prestigious scholarship is very well recognized across the globe. Since 2015, JBNSTS has also initiated a Junior Talent Search Test – a scholarship program for the students who are studying science in class XI. This program has been started to motivate and nurture the students from a younger age.

JBNSTS 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. It also encourages students towards the learning of basic sciences and inculcates scientific spirit in the minds of 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.

JBNSTS is also conducting Teachers Training Program by involving middle school science teachers from different districts of West Bengal. Hands-on activity based science teaching has given the main emphasis throughout this program and accordingly science kits have been developed and distributed amongst the participating teachers for demonstrating scientific principles in front of the 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 & some other Industries also collaborates with JBNSTS in such 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, Govt. of India for attraction of talent to Science and had been launched in December 2008. The basic objective of INSPIRE is to attract talented youth, ranked within top 1% in Class X board examinations and presently studying Science in +2 levels, to study science and motivate them to take up research career and inculcate scientific thought processes in all walks of their life and thus build the required critical human resource pool for strengthening and expanding the Science & Technology system and Research & Development base. It also aims to excite the interns by rubbing shoulders with global leaders in science including Nobel Prize Winners to experience the joy of innovations.

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: I. 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:

- a. 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.
- b. 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.
- c. 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, Deputy 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. Soumitra SenGupta

Professor, Department of Theoretical Physics
& Dean (Academic & Students Affairs)
Indian Association for the Cultivation of Science, Kolkata

Dr. Samita Basu

Professor, Chemical Science Division
Saha Institute of Nuclear Physics, Kolkata

Dr. Bhaskar Saha

Scientist 'G', National Centre for Cell Science
NCCS Complex, Pune University Campus, Pune

Dr. B.N. Das

Vice President, Science Communicators' Forum, Kolkata

Shri Samar Bagchi

President
Kishore Bharati Development Society, Kolkata

Dr. Abhijit Kar

Scientific Officer
Jagadis Bose National Science Talent Search, Kolkata

Dr. Smarajit Manna

Student Advisor
Jagadis Bose National Science Talent Search, Kolkata

Dr. Pradyut Ghosh

Professor, Department of Inorganic Chemistry
Indian Association for the Cultivation of Science, Kolkata

Dr. Sanghamitra Sengupta

Assistant Professor, Department of Biochemistry
University of Calcutta, Kolkata

Dr. Arnab Chakraborty

Assistant Professor, Applied Statistics Unit,
Indian Statistical Institute, Kolkata



Dr. Abhijit Kar

Scientific Officer
Jagadis Bose National Science Talent Search, Kolkata

Dr. Smarajit Manna

Student Advisor
Jagadis Bose National Science Talent Search, Kolkata

CAMP RULES

Welcome to the 51st 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 Birla Industrial and Technological Museum, Kolkata has been arranged on **19th May, 2016.** The departure time from JBNSTS to BITM 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.
- All the participants will be divided into groups. There will be a group leader for each group selected by group members of each group. Each group has to prepare a project based on the 'hands-on activity' at the laboratory and present the same (PowerPoint / Chalk & talk) during project presentation session (21st May, 2016). Each group will get 10 minutes for presentation/ demonstration and 5 minutes for discussions.
- 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 17th May, 2016.**

Book Bill :

- All the participants will receive a **Book Grant of Rs.1,200/-.** For that all the participants have to submit the original bills for the book(s), already purchased, during **morning registration (09.00 a.m. to 10.00 a.m.) on 18th May, 2016.**

Travel Bill :

Residential Students: Travel bills (as per instruction communicated to HM) are to be submitted along with relevant documents (tickets etc.) **during lunch break of 18th May, 2016.**

- You are required to fill up the **FEED BACK SHEET** and submit it **during lunch break on 21st May, 2016.**

Reimbursements:

Reimbursement for Travel expenses and Book Grant (school wise) will be made on : **On 20th May, 2016 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. 21st May, 2016 you will receive the Participation Certificate.



“Learning Science”

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,

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. 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. SAMITA BASU

Dr. Samita Basu is a Professor at the Chemical Sciences Division, Saha Institute of Nuclear Physics, Kolkata. She did her Ph. D. from Indian Association for the Cultivation of Science under supervision of Prof. Mihir Chowdhury in 1989. Her current research interests are photochemistry in homogeneous (solvent) and heterogeneous (micelles, reverse micelles, vesicles) media, Electron Transfer & Hydrogen abstraction, Interaction between small drug-like molecules with protein and DNA.

DR. BHASKAR SAHA

Dr. Bhaskar Saha, a research scientist, did his M. Sc in Physiology from Calcutta University. He joined the Indian Institute of Chemical Biology for his doctoral degree on the immunology of Kalazar, a potentially fatal disease prevalent in India. Following his PhD from the Jadavpur University, Dr. Saha moved to Post-graduate Institute of Medical Education and Research (PGI) Chandigarh, from where he moved to USA for post-doctoral research on Immunology. He worked as a post-doctoral fellow for two years in US Navy and then became Faculty in the Department of Medicine, Uniformed Services University of Health Science and jointly, a Principal Investigator at the Naval Medical Research Institute. He came back to India as a scientist and is honored with the Shanti Swarup Bhatnagar Award for his contribution to Immunology. Teaching Immunology is his passion and continues to do so in many colleges and universities

DR. B. N. DAS

Dr. Das is the Vice President of Science Communicators Forum, Kolkata. He was a reader in Physics in Vivekananda College, Kolkata. After retirement he joined Presidency College as a guest lecturer in post graduate level. Then he was appointed as the Joint Secretary of National Executive Council of I.A.P.T and later on he acted as a Vice President over there. He has been relentlessly working to improve Science Education in Schools. He has also visited some renowned National & International organizations. Paris, Yorkshire, London are those international locations.

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. 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. . SANGHAMITRA SENGUPTA

Dr. Sanghamitra Sengupta received the M.Sc. and Ph.D. degrees in 1991 and 1998, respectively, from the Department of Biochemistry, University of Calcutta. After obtaining postdoctoral training in the Department of Genetics of Case Western Reserve University and Stanford University, USA, she joined the Human Genetics Unit of the Indian Statistical Institute as a research scientist. She has been a faculty member in the Department of Biochemistry, University of Calcutta, since 2005. She is a member of the Indian Society of Human Genetics, Society of Biological Chemists and Indian Association of Cancer Research. Her main research interests include host genetics of infectious disease and cancer genomics. Besides, she bears an active interest in the environmental and human metagenomics. Her work has resulted in 30 research publications in peer-reviewed journals.

DR. ARNAB CHAKRABORTY

Dr. Arnab Chakraborty is presently the Assistant Professor at Applied Statistics Unit, Indian Statistical Institute, Kolkata. He did B. Stat and M. Stat from Indian Statistical Institute, Kolkata and Ph.D. from Stanford University, USA. He loves to motivate students to learn mathematics by exploring new ideas. A thorough hater of the routine way adopted in most schools and textbooks to teach mathematics.

DR. ABHIJIT KAR

Dr. Abhijit Kar received his Bachelors and Masters in Chemistry. He did his PhD in Science (Chemistry) from Jadavpur University. Dr. Kar has carried out his postdoctoral research in different parts of the world and developed very high aptitude towards cutting edge research. He did his Post Doctoral research at Sungkyunkwan University, South Korea. He has worked at Swiss Federal Laboratory at Zürich, Switzerland. He has also worked as visiting scientist at Interdisciplinary Centre for Advanced Materials Simulation (ICAMS), Rÿhr Universitat, Germany. His current research interest comprises of Application of Nanotechnology for Advanced Materials He has worked on Thermodynamic Modeling using Thermocalc, DICTRA and Phase Field Modeling using MICRESS. He has developed expertise on Different Materials Characterization Techniques e.g: SEM, TEM, XRD, EPMA & Mechanical Property Evaluation of Materials. Dr. Kar has published 33 research papers in SCI Journals and contributed in book chapter on Electron Microscopy and serves as reviewer of many International Peer Reviewed Journals. He is also recipient of National Scholarship and CSIR-SRF. He is currently working as Scientific Officer of JBNSTS and looking after different academic and research activities of JBNSTS and Laboratory set up of JBNSTS. His current research interests include Chemistry of Nanostructured materials and application of nanotechnology in microelectronics.


DR. SMARAJIT MANNA

Dr. Smarajit Manna did his B.Sc. and M.Sc. in Physics. Worked as Junior Research Fellow and Senior Research Fellow at Jadavpur University and Delhi University South Campus respectively and received his Ph.D. degree from Jadavpur University Currently working as Student Advisor at JBNSTS, Kolkata. His research interest includes conduction mechanism through biological membranes and the underlying dynamics. His research interests are Statistical analysis of dynamical systems and Bio-informatics. Dr. Manna has 8 research publications in national and international journals and he is one of the authors of the book chapter “Electrical noise in cells, membranes and neurons in: Understanding Complex Systems”, Springer Berlin/ Heidelberg. He is working as Student Advisor of JBNSTS and apart from guiding students he is carrying out different academic and research work. His current research interests include statistical analysis of dynamical systems and Bio-informatics

“Learning Science”

Day to Day Program

Day 1 : Tuesday, May 17, 2016

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. – 01:00 a.m.	‘The Voice of the Cosmos’- Einstein and the gravitational Wave. Dr. Soumitra SenGupta , Professor and Dean (Academic & Students Affairs), Department of Theoretical Physics, Indian Association for the Cultivation of Science, Kolkata	
01:00 p.m. – 02:00 p.m.	Lunch & Interaction	
02:00 p.m. – 06:00 p.m.	‘Let’s improve your research aptitude – do some active research’ Dr. Abhijit Kar , Scientific Officer & Dr. Smarajit Manna , Student Advisor, JBNSTS, Kolkata	


Day 2 : Wednesday, May 18, 2016

09:00 a.m. – 10:00 a.m.	Registration	
10:00 a.m. – 11:30 a.m.	‘Laser and its applications in light-induced reactions’ Dr. Samita Basu , Professor, Chemical Science Division, Saha Institute of Nuclear Physics, Kolkata	
11:30 a.m. – 01:00 p.m.	‘Natural and Acquired Resistance to infection’ Dr. Bhaskar Saha , Scientist 'G', National Centre for Cell Science, Pune	
01:00 p.m. – 02:00 p.m.	Lunch & Interaction	
02:00 p.m. – 06:00 p.m.	‘Let’s improve your research aptitude – do some active research’ Dr. Abhijit Kar , Scientific Officer & Dr. Smarajit Manna , Student Advisor, JBNSTS, Kolkata	


Day 3 : Thursday, May 19, 2016

09:00 a.m. – 10:00 a.m.	Registration	
10:00 a.m. – 01:00 p.m.	Academic Visit to Birla Industrial and Technological Museum, 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 BITM, Kolkata	

Day 4 : Friday, May 20, 2016

09:00 a.m. – 10:00 a.m.	Registration	
10:00 a.m. – 01:00 p.m.	‘Science Experiments: A different approach’ Shri Samar Bagchi , President, Kishore Bharati Development Society, Kolkata & Dr. B.N. Das , Vice President, Science Communicators' Forum, Kolkata	
01:00 p.m. – 02:00 p.m.	Lunch & Interaction	
02:00 p.m. – 03:30 p.m.	Motivational Lecture Dr. Pradyut Ghosh , Professor Department of Inorganic Chemistry, Indian Association for the Cultivation of Science, Kolkata	
03:30 p.m. – 05:00 p.m.	Motivational Lecture Dr. Sanghamitra Sengupta , Assistant Professor, Department of Biochemistry, University of Calcutta, Kolkata	
05:00 p.m. – 06:00 p.m.	Summing up Session	

Day 5 : Saturday, May 21, 2016

09:00 a.m. – 10:00 a.m.	Registration	
10:00 a.m. – 01:00 p.m.	‘Puzzles and Magic with Mathematics’ Dr. Arnab Chakraborty , Assistant Professor Applied Statistics Unit, Indian Statistical Institute, Kolkata	
01:00 p.m. – 02:00 p.m.	Lunch & Interaction	
02:00 p.m. – 06:00 p.m.	Project Presentation by the Participants	