

IN PURSUIT OF
EXCELLENCE
SINCE 1960

ANNUAL REPORT

2 0 1 8



JAGADIS BOSE NATIONAL SCIENCE TALENT SEARCH



KNOWLEDGE is never the exclusive possession of any favoured race; the whole world is inter-dependent and a constant stream of thought had through ages enriched the common heritage of mankind.

Acharya Jagadish Chandra Bose



JAGADIS BOSE NATIONAL SCIENCE TALENT SEARCH

(Registered under Act XXI of 1860)

Memorandum of The Association

1. Name of the Society : JAGADIS BOSE NATIONAL SCIENCE TALENT SEARCH
2. The Registered Office of the Society is situated at 93/1, Acharya Prafulla Chandra Road, Calcutta – 9 in the State of West Bengal
3. The object for which the Society is established are: to select students with the special aptitude for Science and providing a scheme for counseling. Conserving and helping this most precious resource, namely human talent, which is necessary for building up the nation, by award of scholarships and otherwise. The scheme of JBNSTS shall extend to the whole of West Bengal and may later be extended to other areas.
4. The Names and Addresses and Description of the present members of the Executive Committee (Governing Body) are :

DR. B C ROY, Writers' Buildings, Calcutta – 1, President, Governing Body;

SIR JEHANGIR GHANDY, Tata Iron & Steel Co. Ltd., Jamshedpur, Chairman, Governing Body;

SIR RAMASWAMY MUDALIAR, 9, Lower Rawdon Street, Calcutta – 16, Member, Governing Body;

MR. R P BILLIMORIA, Tata Iron & Steel Co. Ltd., Jamshedpur, Member, Governing Body;

DR. D M BOSE, Bose Institute, Calcutta – 9, Member, Governing Body;

DR. P K BOSE, Bose Institute, Calcutta – 9, Member, Governing Body;

DR. D M SEN, Writers', Buildings, Calcutta – 1, Member, Governing Body;

DR. R L SENGUPTA, Presidency College, Calcutta – 12, Member, Governing Body;

DR. S K MITRA, Institute of Radio Physics, Calcutta – 9, Member, Governing Body

DR. S C MITRA, 12, Hindustan Road, Calcutta – 29, Member, Governing Body;

DR. K MITRA, 93/1 Acharya Prafulla Chandra Road, Calcutta – 9, Secretary, Governing Body.



Pandit Jawaharlal Nehru addressing the Inaugural Award Giving Ceremony on 11th April, 1961



H. E. SHRI KESHARI NATH TRIPATHI

The Hon'ble Governor, Government of West Bengal
Patron-in-Chief, JBNSTS, Raj Bhavan, Kolkata 700 062

MEMBERS OF THE GOVERNING BODY OF JBNSTS

PROF. (DR.) AMITAVA RAYCHAUDHURI

Chairman, JBNSTS and
Sir Tarak Nath Palit Professor of Physics, University of Calcutta
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Additional Chief Secretary, Government of West Bengal
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Principal Secretary, Government of West Bengal
Department of Science & Technology and Biotechnology
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Secretary, Department of School Education,
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SHRI BHASKAR PRAMANIK

Chairman, Microsoft Corporation (I) Pvt. Ltd.
10th Floor, Tower B & C, DLF Building No.5 (Epitome)
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SHRI Y. C. DEVESHWAR

Chairman, ITC Limited, Virginia House
37 J. L. Nehru Road, Kolkata - 700 071

SHRI SAMAR GHOSH, IAS

Q-2 Panchasayar
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Kolkata 700 094

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Jadavpur, Kolkata 700 032

PROF. (DR.) PARTHA P MAJUMDER

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PROF (DR.) DHRUBAJYOTI CHATTOPADHYAY

Vice Chancellor, Amity University,
Kolkata, Major Arterial Road, Action Area II,
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DR. SUDIP CHATTERJEE

Hon. Professor VIMS, Kolkata
Park Clinic, 4 Gorkey Terrace, Kolkata 700 017

PROF. (DR.) MAITREE BHATTACHARYYA

Director and Member-Secretary Ex-officio, JBNSTS
1300 Rajdanga Main Road, Kasba, Kolkata 700 107



Chairman's message to the new Awardees



It is a matter of great pride for us that today JBNSTS will welcome to its fold new Awardees. Welcome young friends! Your superior talent and abilities have distinguished you from among your peers. You have made it through a very rigorous multi-component selection process by which only the very best get identified. You have capabilities which few possess. The country has many expectations from you. I am confident that like our previous awardees, you too will excel in your endeavour and make India proud. From now on, you will be an ambassador for JBNSTS. Remember, your success is our success.

With constant encouragement and support from the Government of West Bengal, JBNSTS has been able to considerably enhance its ambit. The number of senior scholarships has increased, the junior scholarships have become very popular, and the Bigyani Kanya Medha Britti is encouraging more girl students to seriously pursue careers in science. Besides these, JBNSTS organises science camps for high-ranking school students, provides laboratory training for young students, contributes to non-formal teaching methods etc, while keeping full focus on its primary role. The infrastructural facilities are under constant improvement and a National Innovation Centre for Young Scientists is coming up. Under continued inspiring leadership JBNSTS has established itself as a catalyst for scientific excellence. JBNSTS is now widely recognised as a very effective vehicle for nurturing and bringing to the fore promising science students in significant number from all over West Bengal, cutting across gender and social lines.

Though much has been achieved, there is still a long way to go. JBNSTS will continually strive to throw a wider net to identify the high-quality students from relatively remote areas. Some among those, who lack the right facilities and exposure, will be offered special grooming for future prominent science careers. We have to build on our demographic advantage and rich past heritage.

Prof. (Dr.) Amitava Raychaudhuri
Chairman, JBNSTS



“Try not to become a man of success,
but rather try to become a man of value.”

– Albert Einstein



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From the Director's Desk



I consider this as a proud privilege to present this Annual Report of JBNSTS for the year 2018 and to state before you regarding the journey of our beloved institution during the last one year. JBNSTS started its functioning with a broader ambit and with new realm of activities with a new vigour about four years back. I am happy to inform you that we were able to keep that pace of growth and dynamism during the last year also to reach another milestone.

This pace of growth and development of JBNSTS during last one year was made possible due to continuous inspiration and support we get from Hon'ble Chief Minister of West Bengal in all our activities. She is kind enough to keep track of all our activities and guide us inspite of her extremely busy schedule and workload. It is due to her inspiration only it became possible to make such progress in all spheres. I and my colleagues at JBNSTS are grateful to her for guiding us in this journey.

JBNSTS is known to academic circle of this state as also outside the state for last 60 years or so through the 'Senior Talent Search Test'. In 2015, we have also initiated Junior Talent Search Examination, which has been very popular to the students. This year also the Junior and Senior Talent Search examinations were carried out during July to September and altogether 12,000 number of students participated in the examinations, which is an all-time record. Finally 211 number of Junior scholars, 52 number of Encouragement awardee, 73 number of Senior scholars and 51 number of Bigyani Kanya awardees have been selected through the extensive examination procedure. I congratulate the young bright minds, who have been able to put a mark in any of these examinations.

Even after 71 years of independence of India, we are yet to guarantee gender equity and equality in all spheres of life, including education. There is no doubt that pursuing higher education for a girl in general is comparatively difficult in our country due to backwardness and obscurantism still persisting within a large section of community. It is a reality that even in this 21st century, number of successful women scientists and professionals are



comparatively much less . To ensure inclusive development, JBNSTS introduced a special scholarships “Bigyani Kanya Medha Briti” only for the girl students who are pursuing basic science/ medical science /engineering in their graduation level. 50 girl students have been awarded with this special scholarship to boost up studies during their graduation period from the generous grant being provided by the Department of Higher Education, Science and Technology and Biotechnology, Government of West Bengal.

Let me congratulate all our scholars on their success and achievement. You are richly deserving of the applause and admiration. You have been awarded this scholarship because of your success, which you have secured through labour, resolve and devotion. It also symbolizes the beginning of a new journey where the knowledge you have gained so far and the skills you have acquired will be put to more rigorous test. You will definitely achieve success but at times you may face adversity also. It is in mitigating those trying circumstances that you will prove your excellence. I am sure, your discipline, commitment and determination will help you navigate through the rough terrain. I want more news of success from you for which you have to toil more. Please keep in mind the advice of Dr. APJ Abdul Kalam, His Excellency Ex-President of India “Don't take rest after your first victory, because if you fail in second, more lips are waiting to say that your first victory was just luck.”

I also want to convey my wishes to those students who have also tried, but could not make it up to the final list. Please keep in mind that one examination is not the end of universe. That does not imply you having to forfeit any further learning, as there is knowledge to be gained anywhere, anytime ahead. Life rewards those who engage in life-long learning and JBNSTS will be always with you in your future exploration of knowledge. My humble suggestion to you “If you get No as an answer (as *happened this time*), remember N.O. means 'Next Opportunity'. So Let's be positive.” – as told by Dr. A.P.J. Abdul Kalam, His Excellency Ex-President of India

All the scholars of JBNSTS are nurtured through different nurturing sessions, camps and workshops where many experts, scientist and even intellectuals from other social domain and organizations participated. We are all thankful to them and their parent institutions for spending their valuable times with our scholars. This year, JBNSTS organised 5-days nurturing camp of the Junior Scholars at IISER, Kolkata campus. We are especially grateful to IISER, Kolkata for making all the arrangements including accommodations of all the scholars and one mentor group in their campus. The scholars were really excited and feedback of that camp exceeded our expectations.

JBNSTS is pioneer in organising 5-day long INSPIRE camps where the INSPIRE scholars are nurtured and motivated by very eminent scientists, awardees of Padmasree, Bhatnagar and Swarnajayanti of our country. In this year also, we were able to get responsibility of organising INSPIRE camp from Science & Technology, Government of India which we successfully organised.

Role of schools in science education is commendable. JBNSTS believes that all our activities of science education are complimentary to the school education. Teachers are the most important assets of a nation. “A teacher can never truly teach unless he is still learning himself. A lamp can never light another lamp unless it continues to burn its own flame. The teacher who has come to the end of his subject, who has no living traffic with his knowledge but merely repeats his lesson to his students can only load their minds, he cannot quicken them” – as told by Gurudev Rabindranath Tagore. Teachers' Training workshop is thus



one of the major program of JBNSTS. Teachers' knowledge ultimately ignites creativity amongst the talented students, finally culminating into innovation. This year, we were able to organise 6 number of 3-days Teachers' Training Camps at our campus, Murshidabad, Contai, Alipurduar and Burdwan. We are proud that one workshop was organized in collaboration with Royal Society of Chemistry—that was a great learning experience for the teachers. These workshops are highly effective in developing motivation and imparting skills of science education among the science teachers of our State. JBNSTS was selected as the mentoring institute for Science Teachers Training under Sarba Siksha Mission since last year. This year we also conducted Teachers' Training Workshops as a part of “Rashtriya Avishkar Abhiyan”. The entire funding for this programme was provided by Department of Higher Education, Science and Technology and Biotechnology, Government of West Bengal, and NCSTC, Government of India.

District School Scheme is a long sustained program. We take up a number of schools for one year and nurture the pre-secondary students belonging to class VIII and IX throughout the year by organizing two-phase training workshops, each of five days duration. This year we covered 15 schools of Nadia, Purulia and Bankura districts. In this connection, I would like to mention, that we have been providing training to the students belonging to “Eklavya Ramkrishna Mission School” of Jhargram, where all the students are first generation learners from tribal families. We also conducted hands on learning of science at the science Education camp in Jhargarm, where the selected students from eleven Ekalavya Schools of our state participated—it was an exciting experience for students as well teachers.

This year also JBNSTS was co-organiser for the State Level Youth Science Fair and we successfully organised “Meet the Scientists” program which was a brain storming interaction with the young students all over West Bengal.

Gurudev Rabindranath Tagore once advised the teachers that “Don't limit a child to your own learning, for he was born in another time”. JBNSTS is aware of this. We have been trying to develop infrastructure so that scientists from outside India can also join our endeavour in imparting science education. That is why we have been providing laptops with licensed software to top ten boys and top ten girls from the STST awardees during last three years so that they can explore the knowledge from the ocean of science. In continuation of that effort, this year we have been able to augment a “Smart Class” with State of Art technology so that scientists from outside can interact directly with the students in the classroom. We have already started to organize such lectures where renowned scientists are directly interacting with the students attending the class from abroad.

Albert Einstein once commented “I never teach my pupils, I only provide the conditions in which they can learn”. JBNSTS has been successful to develop a creative corner where the students can repeat the experiments made by thirteen Nobel Laureates in different fields to feel the joy of their innovations. I am happy to announce that it is now ready for the student scientists.

The construction of the state of art Biotechnology laboratory for the Secondary and Higher Secondary students to create interest amongst the students regarding biotechnology is already over. Regular practical classes are being conducted here during science camps for the students of Govt. and Govt. sponsored schools. We also organised several one-day workshops on Biotechnology for the Higher Secondary students from several schools of Kolkata where the students used this newly created facilities. We are grateful that, the funding for this has been provided by Department of Science, Technology and Biotechnology, Government of West Bengal.



Construction of third floor of the existing building with temporary material by Public Works Department (PWD), Government of West Bengal is over. One class room, one laboratory cum library room and one dining hall for the residential students have been created through this construction, which have resulted in easing out the extreme shortage of space.

Construction of the annex building of JBNSTS is progressing on in full swing. Construction of foundation of the building is already over. Hopefully, the new building will be ready with all other logistics within next two years or so.

I am happy to reconfirm that all round development of JBNSTS continued through the last year is expected to continue in the coming days also. "Education does not only mean learning, reading, writing, and arithmetic, it should provide a comprehensive knowledge." – Ishwarchandra Vidyasagar. We are trying to flourish that idea amongst all sections of community including the students and teachers to develop a strong nation and self-reliant India. I conclude my address with that hope only. I wish to acknowledge and thank all my colleagues for their continued commitment towards the growth of the organization. Finally, I quote Steve Jobs for these new scholars, "Don't wait! Do something when you are young, when you have nothing to lose, and keep that in mind."

Thank you all.

Prof. (Dr.) Maitree Bhattacharyya
Director of JBNSTS



VISION

Identify, Motivate and Nurture to develop the world's brightest minds

MISSION STATEMENT

To see every talented student of science realize their potential and to harness their talent for nation building

To convey the joy of learning science amongst high ability students and to create innovative learning environments for them.

To build up human resource in applied and basic sciences to produce future leaders in science and technology.

OUR ACTIVITIES

- The JBNSTS Senior Talent Search Test
- The JBNSTS Junior Talent Search Test
- Bigyani Kanya Medha Britti
- The JBNSTS District Schools Program
- The JBNSTS Teacher Training Program
- Scholars' Nurture Program
- JBNSTS-DST-INSPIRE Science Camps
- Biotechnology workshop for students
- Research and Innovation



Dr. Paromita Roy



Prof. (Dr.) Maitree Bhattacharyya



Mr. Joydip Das



Dr. Abhijit Kar



Dr. Smarajit Manna



Mr. Dipankar Sarkar



Dr. Pijush Basak



Mr. Basudeb Dutta



Mr. Prasenjit Chakraborty



Ms. Swapna Dey



Dr. Arnab Pramanik



Ms. Puspa Biswas



Dr. Sohan Sengupta



Mr. Ranjit Kr. Mallick



Mr. Sougata Ray



Ms. Monalisa Char



Ms. Paromita Majumdar



Ms. Rituparna De



Mr. Sudip Das



Ms. Sanchari Chattopadhyay



Mr. Mahadev Das



Mr. Sanjay Dutta



Ms. Sweta Chakraborty



Mr. Puskar Naskar



Mr. Tanmoy Paul



Mr. Debnarayan Mukherjee



Mr. Arup Konian



Mr. Sukanta Manna





THE JBNSTS SENIOR TALENT SEARCH TEST

**Journey started in 1958, –
Till now this talent search
test is a unique one**



SENIOR TALENT SEARCH TEST

A heritage program since 1958

JBNSTS Senior Talent Search Test: Snapshot

Jagadis Bose National Science Talent Search (JBNSTS) is an autonomous institution under the financial support of the Department of Higher Education, Science & Technology and Biotechnology Government of West Bengal. The institute was promulgated in the year 1958 to mark the birth centenary celebration of India's foremost modern scientist, Acharya Jagadish Chandra Bose. JBNSTS is the nation's first science talent search organisation. The Senior Talent Search Program is one of the first endeavours and the flagship program of JBNSTS. The talented students are identified through a three step examination process followed by various nurturing and research activities. It envisages creating a talent pool of meritorious students who would make a significant contribution towards the development of the nation in the field of science and technology. DST, Govt. of India has recognised the talent search test by awarding INSPIRE scholarship to the basic science scholars of JBNSTS.

Selection Process of JBNSTS Senior Scholars

The selection of Senior Scholars is performed through a three-phased process as provided below:

First phase: Written Examination	
Full Marks: 100 Time: 3 Hours	This gauges the analytical aptitude, fundamental perception and innovativeness for science and technology.
Second phase: Personal Interview	
Full Marks: 100	The students who qualify the first phase are selected for the interview. The goal of this phase is to judge the candidate's level of scientific knowledge, confidence coupled with innovative acumen and commitment towards science and technology research. This phase constitutes a scientific interaction between a panel of experts and the candidate.
Third phase: Scientific Creativity Test	
Full Marks: 100	Finally, the students who succeed in qualifying the first two rounds are called for Scientific Creativity Test. This aims to evaluate the method or approach of solving a scientific problem which may or may not have an absolute solution. This is a kind of open book test, where the candidates spend overnight in JBNSTS campus and are allowed to consult text books,

Finally the students who qualify in the SCT are identified as JBNSTS scholars.



journals/ papers but not the internet. The candidates are given a set of problems from different subjects on the day of arrival to JBNSTS, and they are required to propose a solution pathway before the panel of expert scientific personnels. Finally, the Senior Scholarship is awarded to the candidates by JBNSTS who qualify all the three rounds.

Scholarship details of JBNSTS Senior Scholarship Test

At the outset, the scholars are awarded certificate and insignia during the Annual Awards Ceremony every year in presence of renowned scientists.

- ❖ A scholar is entitled to receive Rs. 4000 (four thousand) as scholarship grant coupled with annual book grant amounting to Rs. 5000 (five thousand) until the completion of their degree for pursuing engineering or medicine post higher secondary. The scholarship sponsoring authority in this regard is Department of Higher Education Science and Technology & Biotechnology, Government of West Bengal. A student in receipt of a scholarship from any other sources, however, is not eligible for this scholarship.
- ❖ A scholarship and research grant worth Rs. 80,000 (Rs. 60,000 + Rs. 20,000) per annum is awarded to the scholars till completion of Masters Degree for Basic Science (vis-à-vis DST INSPIRE norms, Government of India). This segment of scholarship comes under the purview of DST-INSPIRE, Government of India.
- ❖ Furthermore, the scholars are assigned to perform short-termed pioneering projects post selection and based on their presentation; the three best projects are adorned with MEDHA SAMMAN award every year.

Special Award for Top Ten

In keeping with academic needs, JBNSTS awards Laptops to first ten (10) boy scholars and first ten (10) girl scholars based on the final merit list. The patronage of the Department of Higher Education, Science and Technology & Biotechnology, Government of West Bengal deserves special mention in this regard.

Eligibility criteria for JBNSTS Senior Scholarship Test 2018

Students passing (10+2) examination from any Government recognised Board (WBCHSE/ ISC/ CBSE) in Science in 2018 and aspired to study Engineering/ Medical/ Basic Science (vis-à-vis DST-INSPIRE norms) in West Bengal in the current year.

IMAGINATION IS MORE IMPORTANT THAN KNOWLEDGE. KNOWLEDGE IS LIMITED BUT IMAGINATION ENCIRCLES THE WORLD.

Albert Einstein



Application Procedure for JBNSTS Senior Scholarship Test

- The announcement details of the examination are advertised in leading dailies in the months of June and July each year.
- The eligible candidates may apply either online or offline mode.
- Online mode (of application) is available in the institute's website (www.jbnsts.org).
- The students may also submit the application form and collect the admit card by post or in person from our office or and e-admit card from our website.

Should the candidate require any further information regarding the examination, he/she may contact the JBNSTS office or write to Scientific Officer/ Student Adviser of the test.

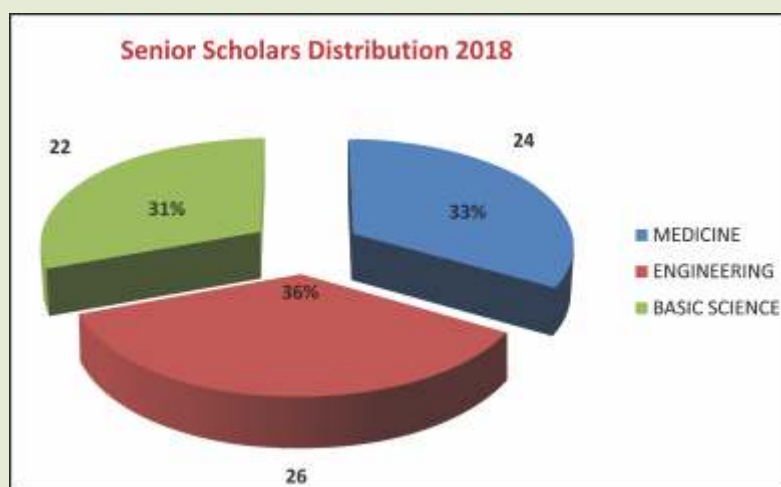
Timeline of JBNSTS Senior Talent Search Test 2018

Phase of Examination	Date(s)	Number of Candidates Appeared
Written Test (First Phase)	19 th of August, 2018	1875
Interview (Second Phase)	15 th & 16 th of September, 2018	311
Scientific Creativity Test (3 rd Phase)	28 th of September, 2018 to the 30 th of September, 2018	132
Result Declaration	10 th of October, 2018	73

73 Students (Boys: 59, Girls: 14) were finally selected as Senior Scholar which comprised of 22 students from Basic Science, 25 students from Medicine and 26 students from Engineering disciplines, respectively.

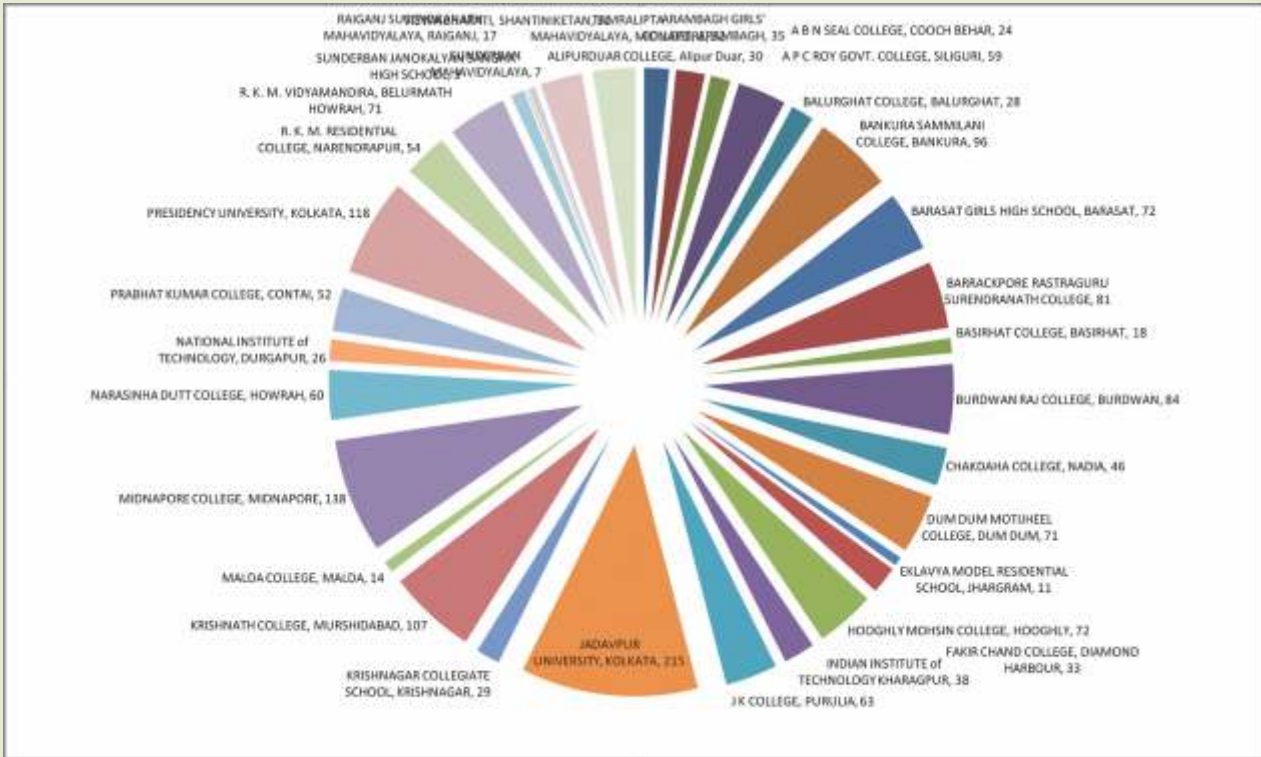
Best School Award in Senior Scholarship Program 2018

This year, the award for best school was conferred to Ramakrishna Mission Vidyalaya, Narendrapur (South 24 Parganas) and Burdwan Municipal High School, Burdwan. The award comes in the form of a Trophy and Library Grant worth Rs. 10,000.

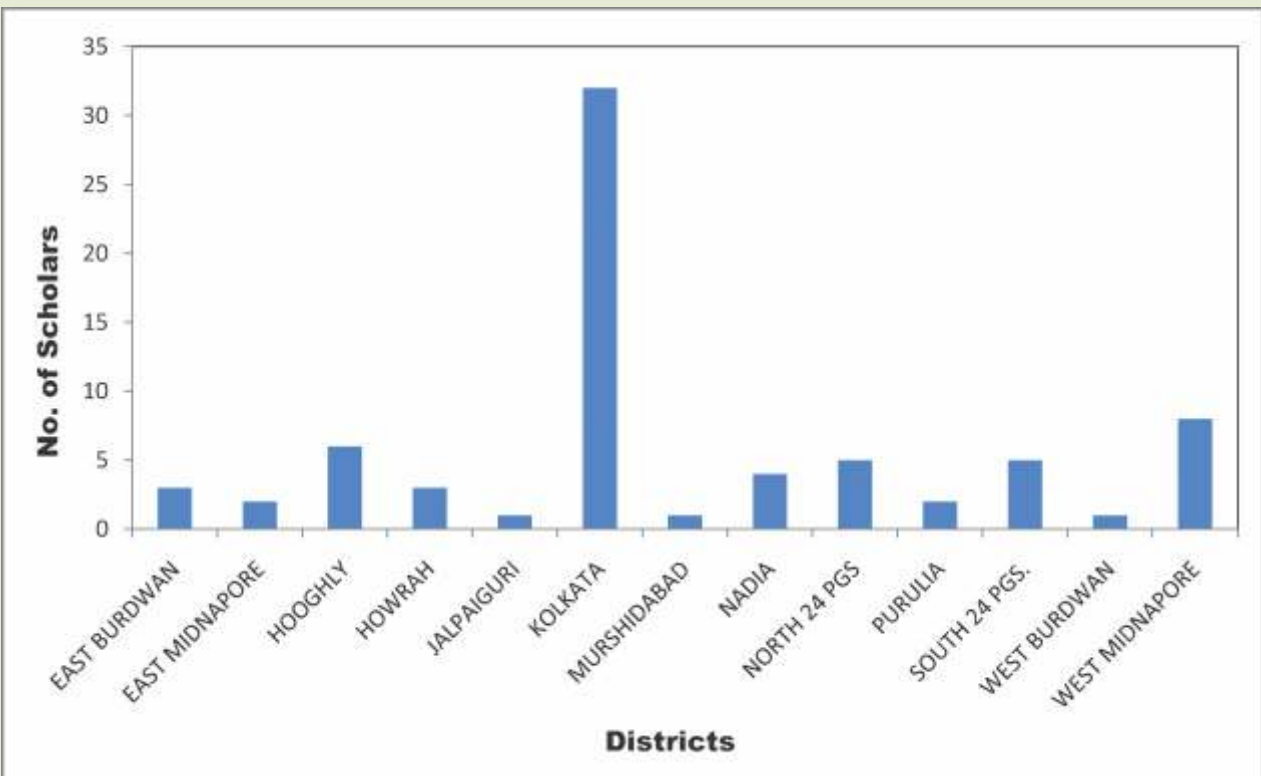




Centre-wise distribution of Examinees for STST 2018



Districtwise distribution of Senior Scholars 2018





JBNSTS SENIOR SCHOLARS (BATCH OF 2018)



ABIR SARKAR
B. STAT
INDIAN STATISTICAL INSTITUTE,
KOLKATA



SWARNENDU MONDAL
MBBS
MEDICAL COLLEGE,
KOLKATA



ANKUR MANNA
COMPUTER SCIENCE &
ENGINEERING
JADAVPUR UNIVERSITY, KOLKATA



SIBA SMARAK PANIGRAHI
MECHANICAL ENGG.
IIT, KHARAGPUR



SANTANU KUNDU
ELECT. AND TELECOMM. ENGINEERING
IIT, KHARAGPUR



KABYAJYOTI BISWAS
ELECTRICAL ENGINEERING
NIT, DURGAPUR



ANUBHAB CHAKRABORTY
MBBS
MEDICAL COLLEGE, KOLKATA



RAJDEEP BRAHMA
B. STAT
ISI, KOLKATA



DEBJIT DEY
MBBS
MALDA MEDICAL COLLEGE



SOHAN DEBNATH
ELECT. AND TELECOMM. ENGINEERING
JADAVPUR UNIVERSITY



SHREYANS CHATTERJEE
MICROBIOLOGY
ST. XAVIER'S COLLEGE



SHREEJA DUTTA
CHEMISTRY
BETHUNE COLLEGE, KOLKATA



SNIGDHO BANERJEE
MECHANICAL ENGG.
IIT, KHARAGPUR



SUBHADITYA BASU
MBBS
MEDICAL COLLEGE, KOLKATA



NIRNIMESH DE
MECHANICAL ENGINEERING
JADAVPUR UNIVERSITY, KOLKATA



RISHAV DUTTA
MBBS
MIDNAPORE MEDICAL COLLEGE



AMARTYA MAJUMDAR
MBBS
COLLEGE OF MEDICINE &
SAGORE DUTTA HOSPITAL



MOUSAM SINHA
STATISTICS
RKM RESIDENTIAL COLLEGE,
NARENDRAPUR



TANNISTHA MONDAL
B. STAT
ISI, KOLKATA



ARITRA RAJ
PHYSICS
RKM VIDYAMANDIRA, BELURMATH



SAMYAJIT GANGULY
MBBS
MEDICAL COLLEGE, KOLKATA



SHUBHAMAY DAS
BS-MS
IISER, KOLKATA



SRESTHA KANJILAL
COMP. SCIENCE & ENGG.
JADAVPUR UNIVERSITY, KOLKATA



SOURADIP DAS
MBBS
MEDICAL COLLEGE, KOLKATA



DEBSUBHRA CHAKRABORTY
PHYSICS
RKM VIDYAMANDIRA, BELURMATH



SUBHAMOY BISWAS
ELECTRICAL ENGINEERING
JADAVPUR UNIVERSITY, KOLKATA



PRABUDHA MISHRA
ELECTRICAL ENGINEERING
JADAVPUR UNIVERSITY, KOLKATA



TIMIR BARAN DAS
MBBS
MEDICAL COLLEGE,
KOLKATA



DEBARPITA JYOTI
PHYSICS (INTEGRATED M.SC)
IIT, KHARAGPUR



MISTUK ROY
COMPUTER SCIENCE (B.TECH.)
INSTITUTE OF ENGG. & MGMT.,
SALLAKE, KOLKATA



ANIMESH MAITY
PHYSICS
JADAVPUR UNIVERSITY,
KOLKATA



SHIVANSH SETHI
ELECTRONICS & ELECTRICAL
COMMUNICATION ENGINEERING
IIT, KHARAGPUR



RITWIK ROY
STATISTICS
RKM RESIDENTIAL COLLEGE,
NARENDRAPUR



RAMNATH KHAN
MBBS
MEDICAL COLLEGE,
KOLKATA



ROHIT BERA
MBBS
IPGMR AND SSKM HOSPITAL,
KOLKATA



ARITRA KUNDU
MATHEMATICS
RKM VIDYAMANDIRA,
BELURMATH



CHIRANTANA CHAKRABORTY
MBBS
MEDICAL COLLEGE, KOLKATA



SRIJAN ACHARYA
CHEMICAL ENGINEERING
CALCUTTA UNIVERSITY



TANISHA MANNA
MBBS
MEDICAL COLLEGE, KOLKATA



AVIK BHATTACHARYYA
MBBS
MEDICAL COLLEGE,
KOLKATA



ARKA SAHA
MBBS
MEDICAL COLLEGE,
KOLKATA



SOUHARDYA ROY
MBBS
IQ CITY MEDICAL COLLEGE,
DURGAPUR



KANAD SEN
MECHANICAL ENGINEERING
JADAVPUR UNIVERSITY,
KOLKATA



SOUMYA BHATTACHARJEE
COMP. SC.& ENGINEERING
JALPAIGURI GOVT. ENGINEERING
COLLEGE, JALPAIGURI



DIPANJAN SAHA
MBBS
R G KAR MEDICAL COLLEGE &
HOSPITAL, KOLKATA



PRIYANKA DEB BURMAN
MBBS
MEDICAL COLLEGE, KOLKATA



SUBHAM GHOSAL
ELECTRICAL ENGINEERING
TECHNO INDIA, SALT LAKE



SAYARI BHATTACHARYA
PHYSICS
JADAVPUR UNIVERSITY, KOLKATA



JAGADISH PATRA
CHEMICAL ENGINEERING
IIT, KHARAGPUR



MADHUSREE SEAL
BS-MS
IACS, KOLKATA



ANIKET BOSE
MBBS
MIDNAPORE MEDICAL COLLEGE



NEEPABITHI MITRA
MBBS
NIL RATAN SARKAR MEDICAL
COLLEGE, KOLKATA



DEBAMITA PAL
ELEC. & COMM. ENGINEERING
INSTITUTE OF ENGG. & MGMT.,
SALT LAKE, KOLKATA



PRITAM SARKAR
PHYSICS
IIT, KHARAGPUR



ANANDA MUKHERJEE
MATHEMATICS
RK MISSION VIVEKANANDA
CENTENARY COLLEGE, RAHARA



PAPIYA SUR
MATHEMATICS
APC COLLEGE,
NEW BARRACKPORE



RWISHITOSH GHOSH
CHEMISTRY
RKM RESIDENTIAL COLLEGE,
NARENDRAPUR



SOURYADIPTA MAJUMDAR
MBBS
R G KAR MEDICAL COLLEGE &
HOSPITAL, KOLKATA



KAUSTAV DEB
ELECT. & TELECOMMUNICATION
ENGINEERING
JADAVPUR UNIVERSITY



DIBYADOOT SASMAL
MBBS
R G KAR MEDICAL COLLEGE &
HOSPITAL, KOLKATA



SAIKAT DAS
MBBS
MIDNAPUR MEDICAL COLLEGE



RITWICK GHOSH
MINING ENGINEERING
IIEST, SHIBPUR



KAUSHIK KANGSA BANIK
PHYSICS
RKM VIDYAMANDIRA,
BELURMATH



TATHAGATA DEY
COMP. SC. AND ENGINEERING
GOVT. COLLEGE OF ENGINEERING
AND TEXTILE TECHNOLOGY,
SERAMPORE



RISHIRAJ DHAR
MECHANICAL ENGINEERING
IIEST, SHIBPUR



SHAPATH BHANDARI
CHEMISTRY
JADAVPUR UNIVERSITY,
KOLKATA



SUBHAYU GHOSH
COMPUTER SCIENCE &
ENGINEERING
NIT, DURGAPUR



SUHINA CELOSIA
MBBS
MEDICAL COLLEGE,
KOLKATA



SOMSUBHRA MUKHERJEE
COMPUTER SCIENCE &
TECHNOLOGY
IIEST, SHIBPUR



NILABHRA ADHIKARY
PHYSICS
RKM VIDYAMANDIRA,
BELURMATH



SAYANI DUTTA
MECHANICAL ENGINEERING
IIT, KHARAGPUR



SANDIPAN HALDAR
MECHANICAL ENGINEERING
IIT, KHARAGPUR



ANSHUMAN KHANRA
MBBS
MEDICAL COLLEGE,
KOLKATA



BIGYANI KANYA MEDHA BRITTI— A PATH-BREAKING INITIATIVE

Genesis and rationale of the Program

West Bengal has played significant role in the augmentation of modern education system in our country. It is important to note that the participation of women in science and technology in India is paltry. Since inception, JBNSTS is engaged in the creation of a talent pool of meritorious students who would contribute effectively to the formation of self-reliant India. In 2016, JBNSTS focused on inadequate representation of women in science in India with regard to global milieu, and offered a proposition of scholarship for the promising girl students of science. The Department of Higher Education and Science and Technology and Biotechnology endorsed our project which came into effect since 2017. The **JBNSTS Bigyani Kanya Medha Britti** program aims to support and encourage the female students to excel in science at the undergraduate and graduate levels.

Eligibility Criteria for Bigyani Kanya Medha Britti 2018

Girl students passed (10 + 2) Board examination from any recognized Board (WBCHSE / CBSE / ISC) in Science in 2018 and pursuing Engineering / Medical / Basic Science (vis-à-vis DST-INSPIRE list of subjects) honours courses in 2018 in undergraduate levels in West Bengal. The selection would be made through **JBNSTS Senior Talent Search Test 2018**.

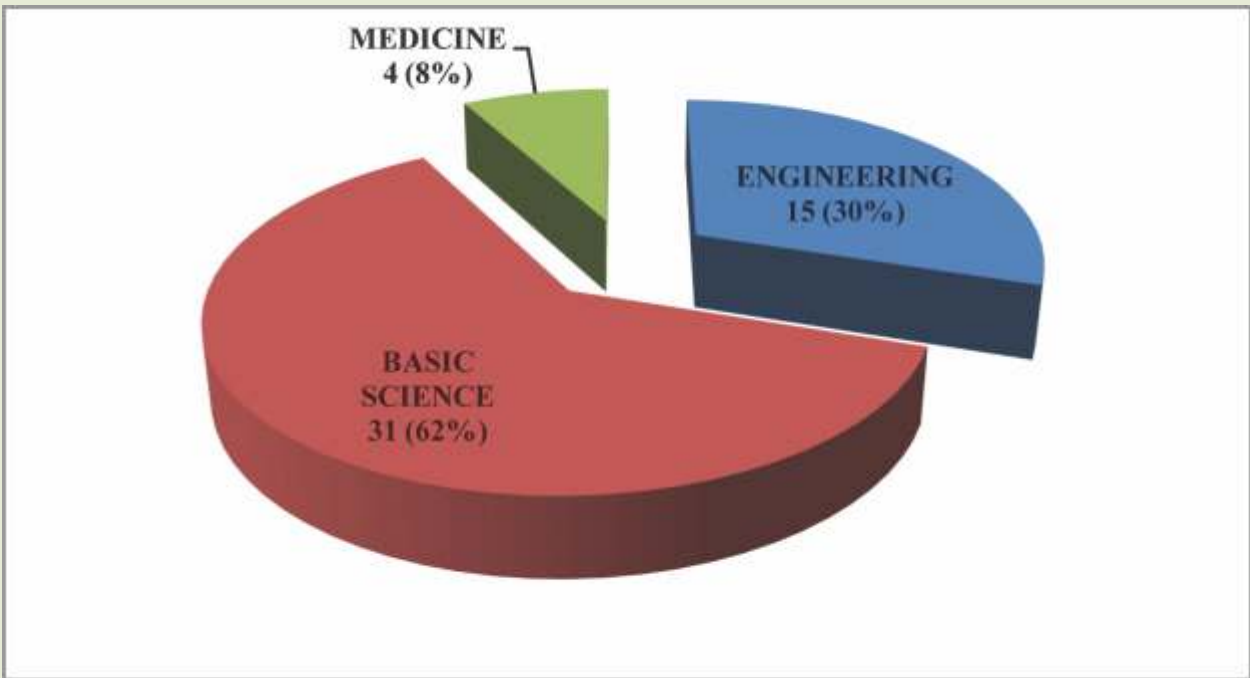
Scholarship and Facilities

- ❖ A scholarship amount of Rs. 2000 per month is awarded to the **Bigyani Kanya Medha Britti** scholars during the course of Bachelors and Masters (Basic Science) degree coupled with annual Book grant of Rs. 2000 for five years till completion of Masters Degree.
- ❖ If the scholar takes up engineering or medicine; they are entitled to receive the same amount for 4/4.5 years until the completion of their degree.
- ❖ A moderate funding is allocated for participation in science workshops, seminars and implementation of different research projects to the enthusiastic young scholars.
- ❖ Besides, **Bigyani Kanyas** would also be fostered by various nurturing camps and enrichment programs.

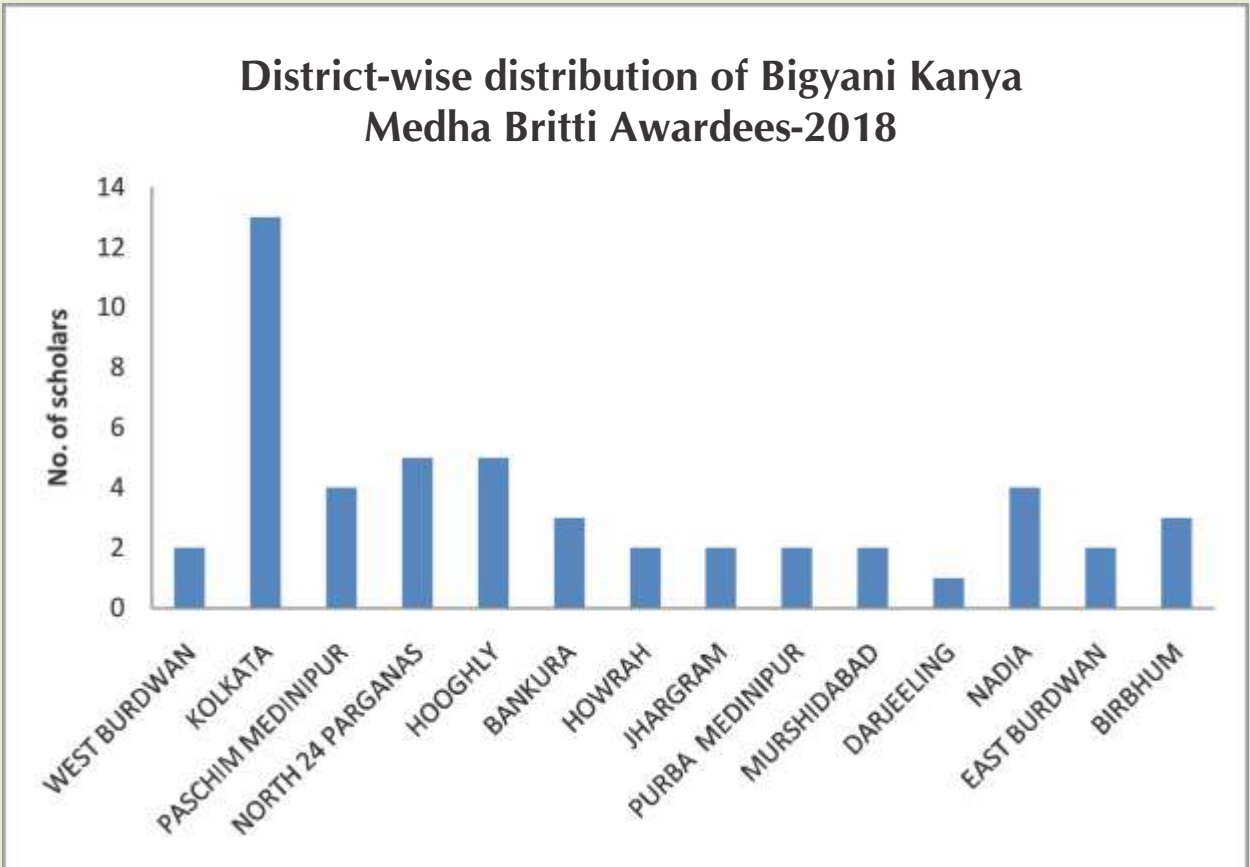
The Department of Higher Education, Science and Technology and Biotechnology (Government of West Bengal) is the scholarship sponsoring authority.



Distribution of Bigyani Kanya Medha Britti Scholars 2018 based on their present stream of study



District-wise distribution of Bigyani Kanya Medha Britti Awardees-2018





Bigyani Kanya Medha Britti Scholars (2018 batch)



SAYANI ADDHYA
PHYSICS
BANKURA ZILLA SARADAMONI
MAHAILA HAMA VIDYPITH



SOHINI PAL
BS-MS
IACS, KOLKATA



TUYA DEY
PHYSICS
VISVA BHARATI UNIVERSITY



SAMBARNA GHOSAL
CHEMICAL ENGINEERING
UNIVERSITY OF CALCUTTA



JESMIN KHATUN
ZOOLOGY
ABHEDANANDA MAHAVIDYALAYA,
SAITHIA, BIRBHUM



ASMITA MAJUMDAR
BS-MS
IACS, KOLKATA



POULAMI CHATTERJEE
MATHEMATICS
JADAVPUR UNIVERSITY



SHRUTI MUKHOPADHYAY
MATHEMATICS
BARASAT GOVT. COLLEGE



MARIA MUKHERJEE
CHEMISTRY
JADAVPUR UNIVERSITY



ADHISHA ROY
ELECTRICAL ENGINEERING
NATIONAL INSTITUTE OF
TECHNOLOGY, DURGAPUR



SRIJANI CHAKRABORTY
PHYSICS
SILIGURI COLLEGE



SUKANYA DAS
CHEMICAL ENGINEERING
HERITAGE INSTITUTE OF
TECHNOLOGY, KOLKATA



SREEJITA BOSE
ELECTRICAL ENGINEERING
TECHNO INDIA, SALT LAKE



SOUMITA BANDYOPADHYAY
STATISTICS
BETHUNE COLLEGE



PRIYA KULA
ZOOLOGY
SETH ANANDRAM JAIPURIA
COLLEGE



SEMANTI DAS
ZOOLOGY
BETHUNE COLLEGE



SWAGATA BANERJEE
ELECT. AND COMM. ENGINEERING
HERITAGE INSTITUTE OF TECHNOLOGY



HRIDIKA SAHA
ELECT. AND COMM. ENGINEERING
GURUNANAK INSTITUTE OF
TECHNOLOGY



SHRABASTI BANERJEE
PHYSICS
LADY BRABOURNE COLLEGE



ANUSRITA MUKHOPADHYAY
PHYSICS
LADY BRABOURNE COLLEGE



POUSUKHI BAGCHI
ZOOLOGY
LADY BRABOURNE COLLEGE



SANCHAYETA CHOUDHURY
CHEMISTRY
KRISHNATH COLLEGE, MURSHIDABAD



SHREYASRI SAIN
CHEMISTRY
VISVA BHARATI UNIVERSITY



SOMOPROVA HALDER
CHEMICAL ENGINEERING
CALCUTTA UNIVERSITY



ANKITA RAHA
PHYSICS
LADY BRABOURNE COLLEGE



ANTARA MANIK
MATHEMATICS
MIDNAPORE COLLEGE



ATREYEE MUKHERJEE
MBBS
MEDICAL COLLEGE, KOLKATA



NIBEDITA SEN
PHYSICS
BETHUNE COLLEGE



PRAPTI MUKHERJEE
PHYSICS
JADAVPUR UNIVERSITY



KATHAKALI PAUL
MATHEMATICS
VIDYASAGAR EVENING COLLEGE



SOUMALI MUKHOPADHYAY
INFORMATION TECHNOLOGY
GOVT. COLLEGE OF ENGINEERING
AND TEXTILE TECHNOLOGY,
SERAMPORE



MADHUSREE BERA
COMPUTER SCIENCE &
ENGINEERING
TECHNO INDIA, SALT LAKE



SUCHANA CHAKRABARTI
COMPUTER SCIENCE AND
ENGINEERING
KALYANI GOVT. ENGINEERING
COLLEGE



ANKITA MUKHERJEE
ZOOLOGY
MIDNAPORE COLLEGE



AMRITA SARKAR
PHYSICS
LADY BRABOURNE COLLEGE



SANCHARI SEN
BIOTECHNOLOGY (B. TECH.)
HERITAGE INSTITUTE OF
TECHNOLOGY



SOUMYASRI BISWAS
MBBS
NRS MEDICAL COLLEGE &
HOSPITAL, KOLKATA



PRACHETA PAL
LIFE SCIENCE
PRESIDENCY UNIVERSITY



RUMA PRATI HAR
MATHEMATICS
JHARGRAM RAJ COLLEGE



JHUMA PRATI HAR
MATH EMATICS
JHARGRAM RAJ COLLEGE



SWARNALI SARKAR
CHEMISTRY
BETHUNE COLLEGE



SUCHETA NANDY
COMPUTER SCIENCE AND
ENGINEERING
NETAJI SUBHAS ENGINEERING
COLLEGE



ARPITA MUKHERJEE
PHYSICS
BANKURA ZILLA SARADAMONI
MAHILA MAHA VIDYPITH



SHRAMANA GHOSH
BS-MS
IACS, KOLKATA



SREE BHATTACHARYYA
INFORMATION TECHNOLOGY
IIEST, SHIBPUR



SUSHRITA HAZRA
ELECTRICAL ENGINEERING
JALPAIGURI GOVT. ENGINEERING
COLLEGE



YERRA GOWRI PRATYUSHA
COMPUTER SCIENCE AND
ENGINEERING;
IIT, KHARAGPUR



ANWESHA SAIN
MBBS
MEDICAL COLLEGE,
KOLKATA



SURANJANA GHOSH
PHYSICS
HOOGHLY MOHSIN COLLEGE



MONISHA DUTTA
MBBSI
PGMER AND SSKM, KOLKATA



SHREYASI JANA
CHEMISTRY
PRABHAT KUMAR COLLEGE, CONTAI

Our daughters are our wealth





THE JBNSTS JUNIOR TALENT SEARCH TEST

**Novel initiative
to explore
young talents**



JUNIOR SCHOLARSHIP PROGRAM

Nurturing young talents

Formulation of JBNSTS Junior Talent Search Test (JTST)

JBNSTS through competence of more than fifty years of execution of STST envisaged Junior Scholarship Program to explore the talent among the students (10th standard) across the state when they are very young. The objective of that is to identify, motivate and nurture the young talented minds who are at the threshold (in the discipline of science) of higher education in the state. In this context, we are grateful to our Hon'ble Chief Minister Ms Mamata Banerjee for initiating the program. This project is funded by the Department of Higher Education and Science and Technology & Biotechnology. The concept of JTST garnered attention and admiration from various corners all over West Bengal, the success of which was manifested in the extent of the immense participation of students in JTST 2018.

The rationale of JBNSTS Junior Talent Search Test

The JBNSTS Junior Talent Search Test (JTST) was conceived to explore talents of 10th standard qualified science students of West Bengal. The aim of Junior Talent Search Test (JTST) is to identify, nurture and motivate the students studying science in 10 + 2 standard of West Bengal. The entire scheme of Junior Talent Search Test is designed in such a manner which examines not only the merit of the students but also their insight, diligence and other necessary attributes required to excel in science learning and development. With the inception of JTST in 2015 under the aegis of Government of West Bengal, the initiative is slated to be a sustaining phenomenon in days to come. Furthermore, the guiding principles are specified below:

- The Junior Talent Search Test and subsequent scholarship are aimed to enthuse the students who are at the threshold of higher education in the fundamentals of science education.
- The initiative would help the students at their early age to learn the various disciplines of science and help them to attain excellence in the field of science and technology in their formative years.
- The program intends to offer them vital exposure to the diverse world of science through workshops, colloquiums, and lectures by esteemed scientists and professionals in the periphery of Science



& Technology. Apart from academics, other programs are designed also to nurture different creative faculties of the student and broaden their horizon.

- The Junior Scholarship Program would undertake the scholars to visit science research institutions, Technology Centre; eminent laboratories etc. to create interest in the field of science and technology research and motivate them to pursue their career in this field.



Identification process of JBNSTS Junior Talent Search Test

First Phase	Written Examination Full Marks: 90 Time: 2 hours	This phase evaluates the necessary knowledge and potential of students in science subjects.
Second Phase	Interview Full Marks: 90	Interview of students qualified in written examination for assessment of their insight, understanding of different subjects in science, thinking ability and creativity.





Highlights of JBNSTS Junior Scholarship Program (2017 & 2018)

Particulars	JTST 2017	JTST 2018
Total number of Applicants	Online: 6165 + Offline: 1337 Total: 7502	Online: 10244 + Offline: 950 Total: 11194
Schedule of written Examination & Interview	<ul style="list-style-type: none"> Written Examination: 20th August, 2017 Interview: 17th to 19th November, 2017 	<ul style="list-style-type: none"> Written Examination: 19th August, 2018 Interview: 23rd to 25th November, 2018
Total number of candidates appeared	6678	9839
Total number of candidates called for Interview	430	407
Final number of Scholars selected	210	211
Total number of Encouragement Awardees	50	52
Best School Award	Ramakrishna Mission Vidyamandira, Narendrapur	Ramakrishna Mission Vidyamandira, Narendrapur
Special Award for District Schools	<ul style="list-style-type: none"> Kolaghat Thermal Power Plant High School, Purba Medinipur Rahara Ramakrishna Mission Boys' Home High School, Khardaha, North 24 Parganas 	<ul style="list-style-type: none"> DAV Model School, Durgapur, West Burdwan Bankura Banga Vidyalaya, Bankura Gorabazar Iswar Chandra Institution, Murshidabad
Eligibility Conditions of JTST 2018	Students passed 10 th standard with minimum 75 per cent marks (overall) from any Board in 2018 and studying Science in class XI with the combination of any three subjects from Physics/ Chemistry/ Mathematics/ Biology/ Statistics/ Computer Science.	
Scholarship Details	<ul style="list-style-type: none"> The amount of scholarship is Rs. 1000 per month and annual Book grant of Rs. 2500 for two years. The Encouragement Awardees are permitted to one-time book grant worth Rs. 2000. 	





SI No.	Name of the Examination Centre	No. of Students present
28	R. K. M. Vidyamandira, Belurmam	261
29	Raiganj Surendranath Mahavidyalaya	199
30	Sunderban Janokalyan Sangha High School	45
31	Sunderban Mahavidyalaya	107
32	Viswa Bharati, Shantiniketan	458
33	Tamralipta Mahavidyalaya	396
Total		9839

List of Junior Scholars selected through JTST 2018

SI No.	Name of the Scholar	Present Institution
1	Aadil Akhtar	Delhi Public School Ruby Park, Kolkata
2	Aaheli Mandal	DAV Model School Durgapur
3	Aaishik Das	Digra Mallickhati Desbandhu Vidyapith
4	Aakash Saha	St. Stephens School, Dumdum
5	Abhijnan Kar	Raiganj Coronation High School
6	Abhinaba Pahari	Bajkul Balaichandra Vidyapith (H.S.)
7	Aditya Roy Chowdhury	Gorabazar I.C. Institution
8	Agnibesh Pati	Bankura Christian Collegiate School
9	Aishik Ghosh	Ramakrishna Mission Vidyalaya, Narendrapur
10	Akash Kundu	Bankura Zilla School
11	Aliviya Dey	Sodepur Sushilkrishna Sikhshayatan for Girls
12	Amit Kumar Jana	Contai Public School
13	Amitava Roy	Delhi Public School Ruby Park, Kolkata
14	Anamitra Mukhopadhyay	Bankura Zilla School
15	Aneesha Das	Modern High School
16	Anik Biswas	Chakdaha Ramlal Academy H.S
17	Anik Roy	Carmel School
18	Aniket Pan	Burnpur Riverside School
19	Animesh Ghosh	Burdwan Municipal High School
20	Anish Dutta	Kalyani Pannalal Institution
21	Ankan Sen	DAV Model School Durgapur
22	Ankita Dasgupta	Kalyani Public School
23	Ankur Bhaumik	Delhi Public School Ruby Park, Kolkata
24	Ankur Mandal	Patha Bhavan Dankuni
25	Anomitra Banerjee	Gorabazar I.C. Institution
26	Antarik Sarkar	DAV Model School Durgapur



Sl No.	Name of the Scholar	Present Institution
27	Anubhab Dasgupta	Hooghly Collegiate School
28	Anubhab Ghosal	Bodhicariya Senior Secondary School
29	Anweshdeep Ghosh	Gorabazar Iswar Chandra Institution
30	Archisman Ghosh	M. P. Birla Foundation Higher Secondary School
31	Arghya Mukherjee	Bishop Morrow School
32	Arindam Bhattacharyya	Kendriya Vidyalaya No - 2 ,Kharagpur
33	Arindam Ghosh	Sodepur High School (H.S)
34	Aritra De	Bankura Zilla School
35	Aritra Mitra	Behala Aryya Vidyamandir
36	Aritra Singha Roy	Bethuadahari JCM High School
37	Aritri Samaddar	Bidhan Chandra Institution for Girls
38	Aritrika Paul	Parulia K.K High School
39	Arkadip Mukherjee	Adamas International School
40	Arkapravo Chanda	Kalyani University Experimental High School
41	Arnab Halder	Ramakrishna Mission Vidyalaya, Narendrapur
42	Arnab Mahanty	Bankura Banga Vidyalay
43	Arnab Rakshit	Ramakrishna Mission Vidyalaya, Narendrapur
44	Arpan Ghosh	Ramakrishna Mission Boys Home High School, Rahara
45	Arpan Kumar Sau	Goutam Smriti Satpati Binapani Vidyamandir
46	Arup Ratan Das	Ramakrishna Mission Boys Home High School, Rahara
47	Avijoy Sharangi	Kalyani Central Model School
48	Avraneel Pal	Adamas International School
49	Ayushi Saha	DPS Ruby Park
50	Barnopriyo Dutta	St. Mary's Higher Secondary School
51	Barshan Ray	St. Mary's Higher Secondary School
52	Berochan Marik	Baruipur High School
53	Bipraditya Mukhopadhyay	M. P. Birla Foundation Higher Secondary School
54	Darpa Narayan Basu	Haldibari High School
55	Debangshu Sannigrahi	Ramakrishna Mission Vidyalaya, Narendrapur
56	Debanjan Jana	Contai Model Institution
57	Debargha Dey	Mahesh Sri Ramkrishna Ashram Vidyalaya
58	Debojyoti Dey	Prafullanagar Vidyamandir H.S.
59	Deborshi Ghosh Dastidar	Delhi Public School Ruby Park, Kolkata
60	Debraj Bhowmik	Ramakrishna Mission Vidyalaya, Narendrapur
61	Deep Sekhar Ghosh	DAV Model School Durgapur
62	Devraj Das Adhikary	Ramakrishna Mission Vidyabhaban
63	Dhruba Sinha	Kankasa High School
64	Dip Gaine	Prafullanagar Vidyamandir



Sl No.	Name of the Scholar	Present Institution
65	Dipendu Malakar	Coochbehar Rambhola High School
66	Diptava Das	Bidhan Chandra Institution
67	Durbar Chakraborty	Sarada Vidya Mandir
68	Dwipyayan Panda	Egra Jhatu Lal High School
69	Gourab Kundu	Ramakrishna Mission Vidyalaya, Narendrapur
70	Himanshu Kumar	Ramakrishna Mission Vidyalaya, Narendrapur
71	Imon Raj	Khalatpur High Madrasah
72	Jayatri Paul	Raiganj Coronation High School
73	Jishnu Patra	Kendriya Vidyalaya Santragachi
74	Joydeep Paul	Sudarsanpur D.P.U Vidyachakra
75	Kanad Bhaumik	Dr Annie Besant Institute
76	Kanko Ghosh	Patha Bhavan
77	Kaushani Roy	The Future Foundation School
78	Konad Kundu	Delhi Public School Ruby Park, Kolkata
79	Koulik Das	Ramakrishna Mission Vidyalaya, Narendrapur
80	Koushik Sarkar	Katwa Kashiram Das Institution
81	Kunal Pal	South Point High School
82	Kunal Samanta	Dav Model School Durgapur
83	Kushal Das	Hem Sheela Model School
84	Lopamudra Patra	Bankura Banga Vidyalay
85	Mahfujul Haque	Gorabazar Iswarchandra Institution
86	Mainul Hasan Mondal	Khalatpur High Madrasah
87	Maitrayo Saha	Julien Day School
88	Manas Pratim Bisws	Ramakrishna Mission Vidyalaya, Narendrapur
89	Manjira Roychowdhury	Modern High School For Girls
90	Mayukh Mondal	Don Bosco School, Liluah
91	Mayukh Nandi	Kamakhyaguri High School
92	Meherobuddin Mandal	M S High School
93	Mou Dasmahanta	Simlapal Madan Mohan High School
94	Mrinmay Mandal	Jalpaiguri Zilla School
95	Nandini Singha	Auxilium Convent School
96	Neelabjya Das	Ramakrishna Mission Vidyalaya, Narendrapur
97	Nirnimesh Roy	B.D. Memorial International
98	Oindrila Maji	Aditya Birla Vani Bharati
99	Partha Sarathi Sengupta	Delhi Public School Ruby Park, Kolkata
100	Poojanjali Roy	South Point High School
101	Pramita Samanta	K.T.P.P. High School
102	Pratan Chakrabarti	Ramakrishna Mission Vidyalaya, Narendrapur
103	Pratyasha Nath	Shri Shikshayatan School



Sl No.	Name of the Scholar	Present Institution
104	Pratyay Pal	Basirhat Town High School
105	Prayas Chakrabarty	Nava Nalanda High School (H.S)
106	Prayas Mazumder	Ramakrishna Mission Vidyabhavan (H.S.)
107	Prerana Mondal	Krishana Bhabini Nari Siksha Mandir
108	Pritam Baidya	Barsul C.D.P. High School
109	Prithu Purkait	Dolna Day School
110	Priyam Chakraborty	Patha Bhaban
111	Priyanka Bhowmik	Belghoria Mahakali Girls' High School
112	Priyanka Bose	Ranaghat Debnath Institution For Girls
113	Purnendu Das	Mahesh Sri Ramakrishna Ashram Vidyalaya
114	Purnendu Sen	D.A.V. Model School, Durgapur
115	Rabsan Galib Ahmed	Barasat Peary Charan Sarkar Government High School
116	Rajarshi Basu	Bodhicariya Senior Secondary School
117	Rajarshi Ghosh	Midnapore Collegiate School
118	Rajib Mahat	Ramakrishna Mission Vidyapith, Purulia
119	Ratnojit Bhattacharjee	Bidhannagar High School (Govt)
120	Rayna Ghosh	Delhi Public School Jalpaiguri
121	Reetanjan Kali Roychowdhury	South Point High School
122	Rhichick Dey	South Point High School
123	Ribhav Dey	Hariyana Vidya Mandir
124	Ritam Kumar Maity	Ramakrishna Mission Vidyalaya, Narendrapur
125	Ritodeep Sikdar	Hariyana Vidya Mandir
126	Ritopriyo Pal	Pearls of God
127	Roudranil Chakraborty	Siliguri Baradakanta Vidyapith- H.S.
128	Rudra Prasad Bandyopadhyay	Arambagh High School
129	Rup Sinhababu	Simlapal Madan Mohan High School
130	Rupam Maity	Hem Sheela Model School
131	Rupanjan Mukherjee	Hooghly Collegiate School
132	Sagnik Koley	Ramakrishna Mission Vidyalaya, Narendrapur
133	Sakil Ahammed	Khalatpur High Madrasah H.S.
134	Sakil Ahmed Gazi	Hasnecha High School
135	Samaroha Ghosh	Salt Lake School (English Medium)
136	Saminur Rahaman	Katwa Kashiram Das Institution
137	Sampurak Talukdar	Nava Nalanda High School (H.S. Department)
138	Samriddhi Mukhopadhyay	South Point High School
139	Sanchayan Bhowal	B.D.M.International
140	Sandipan Chowdhury	Raibaghini High School H.S.
141	Sandipan Hazra	Jhargram Kumud Kumari Institution



Sl No.	Name of the Scholar	Present Institution
142	Sanmit Chakraborty	Hare School
143	Saptarshi Adhikary	Ramakrishna Mission Vidyalaya, Narendrapur
144	Saptarshi De Chaudhury	Birla High School
145	Saptarshi Halder	Uttarpara Govt High School
146	Saptarshi Pal	Bankura Zilla School
147	Saptarshi Sinha	Nava Nalanda High School (H.S)
148	Saptashwa Paul	Sri Aurobindo Institute of Education, Kolkata
149	Sarthak Talukdar	Baranagar Narendranath Vidyamandir
150	Satyakam Dolai	Baranagar Narendranath Vidyamandir
151	Sayan Acharya	Bongaon High School
152	Sayan Ali	Barasat Mgm High School
153	Sayan Chakraborty	Uttarpara Govt. High School
154	Sayan Ghosh	Bankura Banga Vidyalay
155	Sayan Kumar	South Point High School
156	Sayan Maji	South Point High School
157	Sayan Neogi	Kalyani Central Model School
158	Sayandip Chakraborty	Kishorenagar Sachindra Siksha Sadan
159	Syantana Datta	Beliatore High School (Hs)
160	Shankhadip Bhattacharjee	Govt. Sponsored Multipurpose School (Boys) Taki House
161	Sharannya Banik	B.D.M.International
162	Shinjini Chatterjee	Techno India Group Public School Coohbehar
163	Shounak Halder	Mollarpur Dharani Deben Siksha Niketan
164	Shruti Singhamahapatra	Bankura Banga Vidyalay
165	Shubhrajyoti Pal	Contai Public School
166	Sirshendu Pathak	Simlapal Madan Mohan High School
167	Sk Ayaan Hamim	Mahesh Sri Ramkrishna Ashram Vidyalaya
168	Sk Shariful Islam	Khalatpur High Madrasah H.S
169	Snehil Sen	Ramakrishna Mission Vidyalaya, Narendrapur
170	Soham Nandy	Zoom International School
171	Soham Ray	Mahesh Sri Ramkrishna Ashram Vidyalaya H.S.
172	Somnath Dash	Jhargram K.K. Institution
173	Sougata Majhi	Ramakrishna Mission Vidyabhavan (H.S.)
174	Soumik Subhra Biswas	Holy Cross School
175	Soumili Sarkar	South Point High School
176	Soumya Kanti Ghosh	Ramakrishna Mission Vidyabhavan
177	Soumyabrata Biswas	Nava Nalanda High School HS Department
178	Soumyadeb Misra	M.D.B.D.A.V. Public School, Bankura
179	Soumyadeep Mandal	South Point High School



Sl No.	Name of the Scholar	Present Institution
180	Soumyadev Saha	St. Pauls Academy, Burdwan
181	Soumyajyoti Sarkar	Delhi Public School Ruby Park, Kolkata
182	Souptik Dolui	M.C Kejriwal Vidyapeeth
183	Sourav Sinha	Bankura Banga Vidyalay
184	Sovan Maity	Ramakrishna Mission Vidyalaya, Narendrapur
185	Sreeja Das	Contai Public School
186	Srija Basu Chaudhury	Pearls Of God
187	Srimoyee Mitra	Gokhale Memorial Girls School
188	Srinjoy Chaudhuri	Ramakrishna Mission Boys Home High School, Rahara
189	Subham Ghosh	DAV Model School Durgapur
190	Subhradip Paul	Ramakrishna Mission Vidyalaya, Narendrapur
191	Subhrashil Roy	MDB DAV Public School
192	Sucheta Chandra	BSF Sr. Sec. Resi. School, Kadamtala
193	Sudip Patra	Vidyasagar Vidyapith
194	Sukanta Kolay	Badkulla United Academy
195	Sulagna Das	Kendriya Vidyalaya, Command Hospital, Alipore
196	Sumit Bagchi	Dinhata High School
197	Supratim Sarkar	Gorabazar Iswar Chandra Institution
198	Suvam Dey	Bhavans G. K. Vidyamandir
199	Swagatam Pal	Birbhum Zilla School
200	Tarang Sur Chaudhury	Bodhicariya Senior Secondary School
201	Tirtha Salil Das	Midnapore Collegiate High School
202	Tirthankar Mondal	M. C. Kejriwal Vidyapeeth
203	Tuhin Subhra Mandal	Birbhum Zilla School
204	Tushar Pal	Burdwan Model School
205	Udaysankar Rath	Contai Model Institution
206	Udbhas Garai	St. James School
207	Udvas Basak	Ramakrishna Mission Vidyalaya, Narendrapur
208	Ujjal Karmakar	Purulia Zilla School
209	Utkarsha Bora	Delhi Public School Ruby Park, Kolkata
210	Utsav Basu	South Point High School
211	Zeeshan Snehil Bhagat	DAV Model School Durgapur

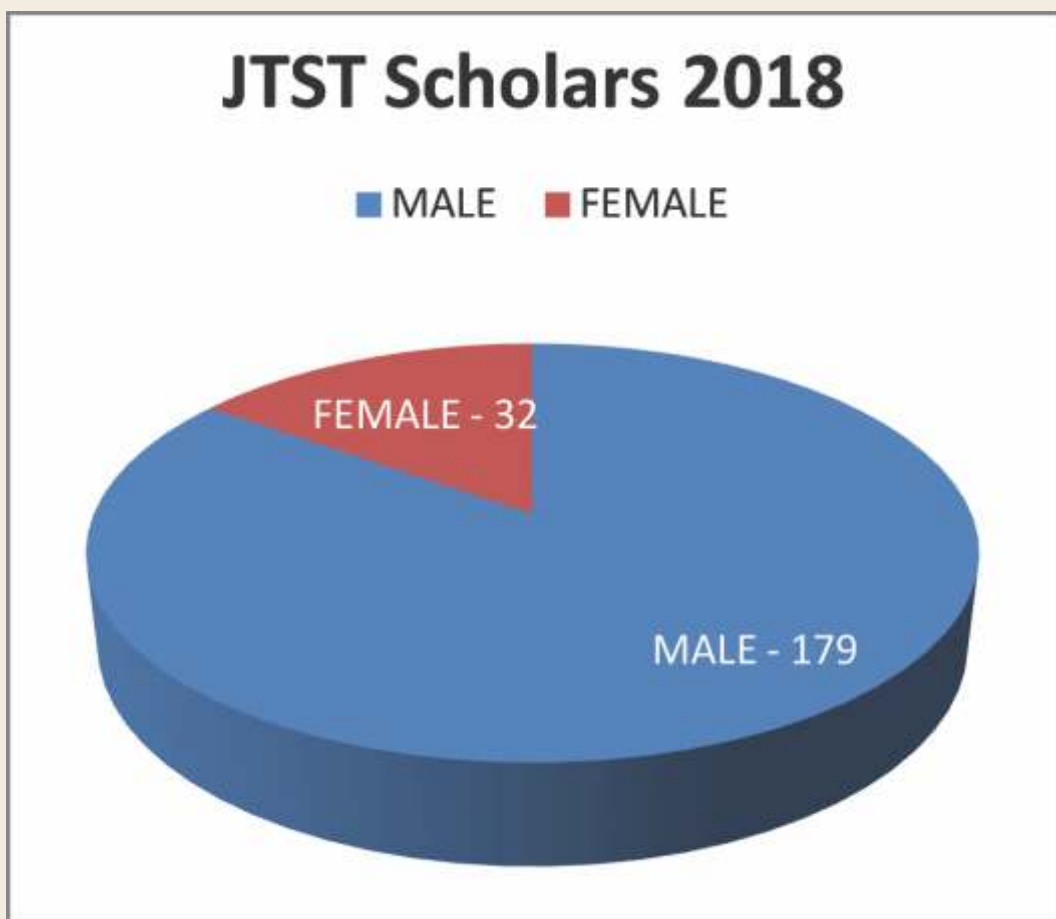
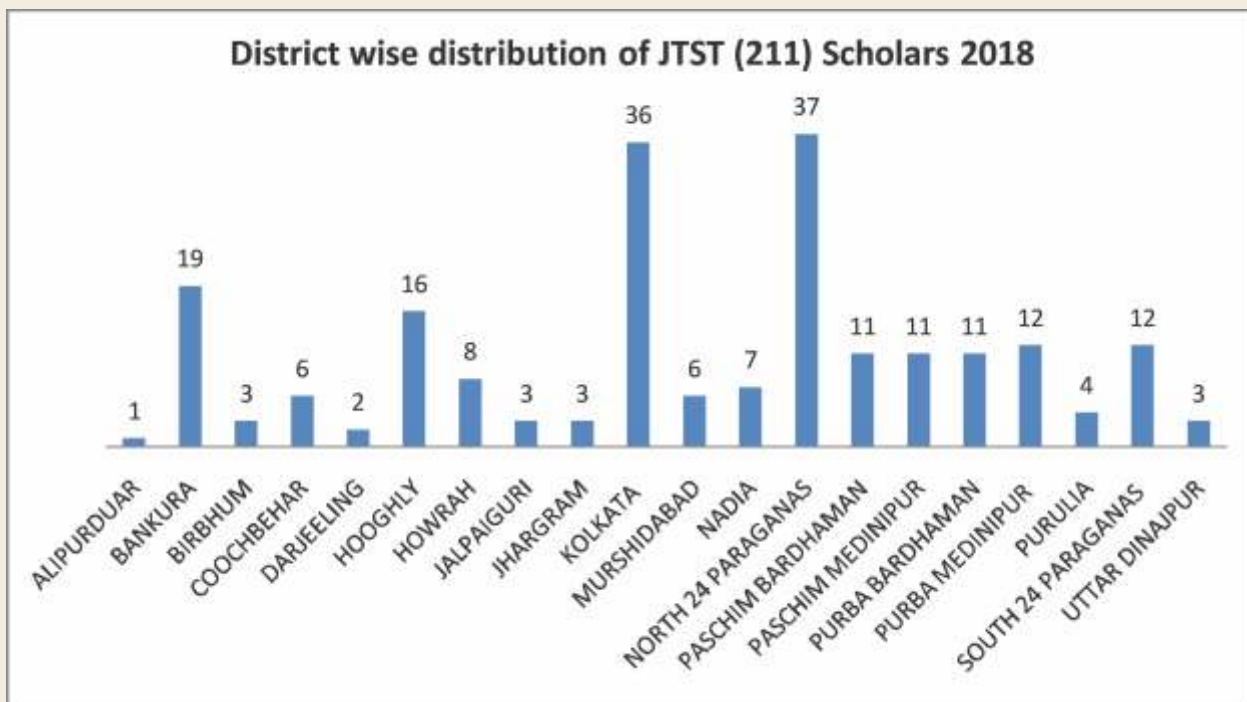


List of Encouragement Awardees 2018

Sl No.	Name of the Candidate	Present Institution
1	Aayushi Das	Kalyani Public School
2	Abir Mondal	Ballygunge Govt. High School
3	Aditya Mitra	Salt Lake School (Eng. Med.)
4	Ahana Mukherjee	Gokhale Memorial Girls School
5	Aniket Ray	The Future Foundation School
6	Antara Das	DAV Model School Durgapur
7	Anubhab Tripathi	Ramakrishna Mission Vidyabhavan
8	Anubhav Chakraborty	Saidabad Manindra Chandra Vidyapith
9	Anushka Agrawal	The Assembly of God Church School
10	Anuvab Panda	Simlapal Madan Mohan High School
11	Arghya Akhuli	Beliatore High School H.S
12	Arindam Halder	Pannalal Institution
13	Arkaprabha Bal	Nandigram B M T Sikshaniketan
14	Asmita Karmakar	Bankura Girls High School
15	Atmadeep Paul	Salt Lake Point School, Saltlake
16	Bidyut Roy	Jenkins School
17	Debarghya Basak	Techno India Group Public School
18	Dipanwita Rano	Hariyana Vidya Mandir
19	Disha Mandal	Bankura Banga Vidyalay
20	Gourab Das	South Point High School
21	Harshika Jalan	Modern High School For Girls
22	Ishani Datta	Aligunj Rishi Rajnarayan Balika Vidyalaya
23	Joydip Roy	Ramakrishna Mission Vidyapith, Purulia
24	Kankana Bhowmick	South Point High School
25	Kishaloy Kar Chowdhury	Central Model School, Barrakpore
26	Krishna Kanta Samui	Ramakrishna Mission Vidyalaya, Narendrapur
27	Maitreyo Bhattacharjee	Adamas International School
28	Manami Mondal	Kalyani Central Model School
29	Nidhi Choudhury	Central Girls Higher Secondary School
30	Onkar Pal	St. Xaviers Collegiate School
31	Pratiman De	Burdwan C.M.S. High School
32	Pritasmi Bhattacharyya	B. D. M. International
33	Pritesh Ghosh	Karimpur Jagannath High School
34	Sandipan Sett	Ramakrishna Mission Vidyalaya, Narendrapur
35	Santanu Mukherjee	Bankura Christian Collegiate School

Sl No.	Name of the Candidate	Present Institution
36	Saptarshi Koley	Mahesh Sri Ramkrishna Ashram Vidyalaya H S
37	Shibam Pharikal	Arambagh High School
38	Shirsendu Chakraborty	El-Bethel School
39	Shrija Karmakar	Delhi Public School Ruby Park, Kolkata
40	Shromona Chakrabarti	The Future Foundation School
41	Snehadip Bhunia	Ramkrishna Mission Vidyabhavan
42	Soham Kapuria	Sri Aurobindo Institute of Education
43	Soumik Roy	Belur Boys High School
44	Soumya Kanti Jana	Ramakrishna Mission Vidyabhavan
45	Sourish Kundu	Bhavans Gangabux Kanoria Vidyamandir
46	Sourit Sarkar	Delhi Public School Ruby Park, Kolkata
47	Souvik Kumar Nath	Ranaghat Pal Chowdhury High School
48	Subharthi Paul	South Point High School
49	Suparna Dan	Siksha Satra Visva Bharati
50	Supriyo Mandal	MDB DAV Public School
51	Swapnil Saha	Contai Public School
52	Swaujas Halder	Ramakrishna Mission Boys Home High School, Rahara





Nurturing Programs for Junior Scholars

Science Workshop at IISER, Kolkata

A five-day workshop was organized (5-9, June 2018) at IISER campus Mohanpur, for Junior Scholars of 2017 batch in collaboration with Indian Institute of Science Education and Research, Kolkata. Active initiative and support from Prof. Sourav Pal Director of IISER, Kolkata made this grand event successful.

The program created an excellent platform where the young talented students got the chance to interact with internationally reputed scientists. They enjoyed the hands-on laboratory

sessions in varied disciplines like, Chemical Science, Earth Science and Computational Modeling and getting an essence of cutting-edge technology. The entire workshop turned out to be intellectually stimulating for the students. In fine, the program acted as a wonderful and holistic learning curve for the JBNSTS Junior Scholars under the mentorship of renowned scientists and legendary mentors.





A glimpse to the topics

Speaker	Topic/ Title
Prof (Dr.) Maitree Bhattacharyya Director; JBNSTS Kolkata	Welcome Address
Dr Subhajit Bandyopadhyay Associate Professor, Department of Chemical Science, IISER Kolkata	Prospect of Science Education in India
Dr Soumitra Sengupta, Department of Theoretical Physics, Indian Association for the Cultivation of Science (IACS) Kolkata	Hawkins Space-Time- Some Hidden Wonders
Prof Sourav Pal Director, IISER Kolkata	Fundamental Science – A Key Driver to the growth of Science and its Intellectual Property.
Dr Suman Chakraborty (Laboratory Session) S. N. Bose National Centre for Basic Sciences, Kolkata	Virtual Chemistry: Building Labs inside Computer.
Dr Devapriya Chattopadhyay (Laboratory Session) Associate Professor, Department of Earth Sciences IISER Kolkata	Fascinating World of Fossils.
Dr Subhajit Bandyopadhyay, Associate Professor Department of Chemical Sciences, IISER Kolkata	The contribution of the Research Output of IISER Kolkata for Societal Benefits.
Dr C M Reddy Associate Professor Department of Chemical Sciences IISER Kolkata	Crystallography in daily life.
Dr Tapas Sengupta Associate Professor; Department of Biological Sciences; IISER Kolkata	What a wonderful Biological World!
Dr Supriyo Mitra Professor; Department of Earth Sciences IISER Kolkata	Earthquakes and Society
Dr Somnath Basu Assistant Professor Department of Mathematical and Sciences, IISER Kolkata	Of Fixed Points and Hex
Amar Deo Chandra Research Scholar Centre of Excellence in Space Sciences in India (CESSI) IISER Kolkata	Lifecycle of Stars



Prof. Bimal Kumar Roy Head, R C Bose Centre for Cryptology and Security & Professor, Applied Statistics Unit, Indian Statistical Institute, Kolkata	Introduction of Cryptology
Prof. Soumitro Banerjee Professor; Department of Physical Sciences IISER Kolkata	How we know?
Dr Dhrubajyoti Chattopadhyay Vice Chancellor, Amity University Kolkata	Origin of Life
Dr Sanjio Zade Associate Professor Department of Chemical Sciences, IISER Kolkata	Chemistry: The Central Science

Nurturing Camp for Junior Scholars (2016 Batch)

JBNSTS organized a nurturing camp for Junior Scholars of batch 2016 at JBNSTS campus during 12 June to 16 June 2018. The intrusive minds were exposed to a higher level of theoretical knowledge of science and technology which would not only create a knowledge base for them in further learning of science but also help them to decide their future pursuits in the formative years. The following Table provides an idea of the beauty of the subjects:

Speaker	Topic/ Title
Prof (Dr.) Maitree Bhattacharyya Director; JBNSTS Kolkata	Welcome Address
Dr Dipak Ghosh Emeritus Professor, Sir C.V. Raman Centre for Physics and Music, Jadavpur University, Kolkata	Matter, Dark Matter & Doesn't Matter
Dr Jayanta Chatterjee Molecular Biophysics Unit, Indian Institute of Science, Bangalore	From Molecules to Therapeutics
Dr Ranjan Ganguly Department of Power Engineering, Jadavpur University, Kolkata	Capillary-driven fluid transport on Paper-Based Microfluid devices- The future of Low-Cost Healthcare
Dr Paromita Roy Deputy Director; JBNSTS Kolkata	Welcome to the Real World
Dr Ravikant Vadlamani Geology & Geophysics Department, IIT, Kharagpur	Reconstructing Continental evolution: The journey of Antarctica from a billion years back to the present
Dr Soumitra Sengupta Department of Theoretical Physics, Indian Association for the Cultivation of Science, Kolkata	Hawkins' Space-Time - Some Hidden Wonders



Dr Arnab Chakraborty Department of Applied Statistics, Indian Statistical Institute, Kolkata	Some Mathematical Surprises
Dr Chandrabhas Narayana Chemistry and Physics of Materials Unit Jawaharlal Nehru Centre for Advanced Scientific Research (JNCASR), Bangalore	Light and its Applications in Current Research
Dr Santanu Mukherjee Department of Organic Chemistry, Indian Institute of Science, (IISc) Bangalore	Organic Compounds in Three - Dimensions: Structures & Implications
Dr Maitreyee Bhattacharyya Director, Institute of Hematology & Transfusion Medicine, Kolkata Medical College, Kolkata	It's All in Your Blood
Dr Anupam Basu Director, National Institute of Technology, (NIT) Durgapur	Natural Language Processing
Dr Raka Dasgupta Department of Physics, University of Calcutta, Kolkata	Science and other creative fields: Parallel windows on the World
Dr Subhajit Bandyopadhyay Associate Professor, Department of Chemical Science IISER, Kolkata	A Talk with a Twist
Dr Smarajit Manna Student Adviser, JBNSTS	Communication from Toe to Brain: Underlying Mathematics
Dr Partha Sarathi Mukhopadhyay Associate Professor, Mathematics Department Ramakrishna Mission Residential College (RKMC), Narendrapur	Glimpses of Ancient Indian Mathematics
Dr Partha Pratim Majumder Distinguished Professor National Institute of Biomedical Genomics (NIBMG), Kalyani	Vignettes of excitement in Genomics

Let's go invent tomorrow rather than
worrying about what happened yesterday.

Steve Jobs



THE JBNSTS WEST BENGAL DISTRICT SCHEME PROGRAM

A challenge from Learning to Practice

**“In a progressive forward-looking society,
science can play a truly liberating role,
helping people escape from the
vicious cycle of poverty,
ignorance and superstition”**

(National Curriculum Framework - 2005)

The inception of JBNSTS West Bengal District Scheme

1998 marks the introduction of the West Bengal District Scheme Program (WBDS) by JBNSTS. The textbook of science curriculum implies barely practical knowledge. The JBNSTS WBDS program aims to complement the theoretical information available in the textbooks by exposing the middle school students to real hands-on training and experiments in the laboratory of JBNSTS. This would help them to acquire confidence to solve the basic and practical problems of life and society. The JBNSTS WBDS program would act as an incubator for future student scientists in this regard.

The Government of West Bengal, especially Department of Higher Education has been the guiding force by extending its valuable support since its commencement. With the support of the academic, scientific, and student community of the state, JBNSTS is successfully discharging the project for the Govt. sponsored and underprivileged schools in the districts of West Bengal. Under the realm of WBDS, selected students belonging to classes VIII and IX of state government-sponsored schools are nurtured by a series of training workshops over five days in the residential scheme of JBNSTS.

The success of the WBDS program of JBNSTS is evident through the awareness it has created about enriched science learning which has resulted in a cumulative increment in representation of district students in JBNSTS scholarship and nurture programs. It has enhanced the students' outlook towards science and society. Young girls and boys, who till then had no opportunities to widen their academic horizon, now have the platform to compete and learn with urban students. In a way, this program acts like an incubator for future student scientists for West Bengal, India and the world.



Planning phase of WBDS 2018-19

The science curriculum of this program aims of making learning 'relevant' i.e. connecting science to social context and everyday world. And therefore, the planning of the WBDS program every year is done on the strict basis of consulting and mutual agreements on time, schedule and logistics with beneficiary schools, their heads of Institutions and science teachers. The final plan emerges after intense discussions within JBNSTS and the respective district schools, so that all concerned with the benefit of students are fully aware of the philosophy behind the program and what it intends to achieve. On these same lines, this year in May 2018, several phone discussions and one to one meetings and group discussions were held with heads of institutions from 15 government aided/sponsored schools covering the districts of Purulia, Bankura and Nadia (5 schools from each district). Following several discussions the annual schedule and curriculum for this program with 15 schools were drawn up. The utility of this kind of workshop was discussed thoroughly. The necessity for students teacher interaction, to nurture group activity, learning of discipline, several application oriented approach apart from text book knowledge are the strong points of this endeavor.



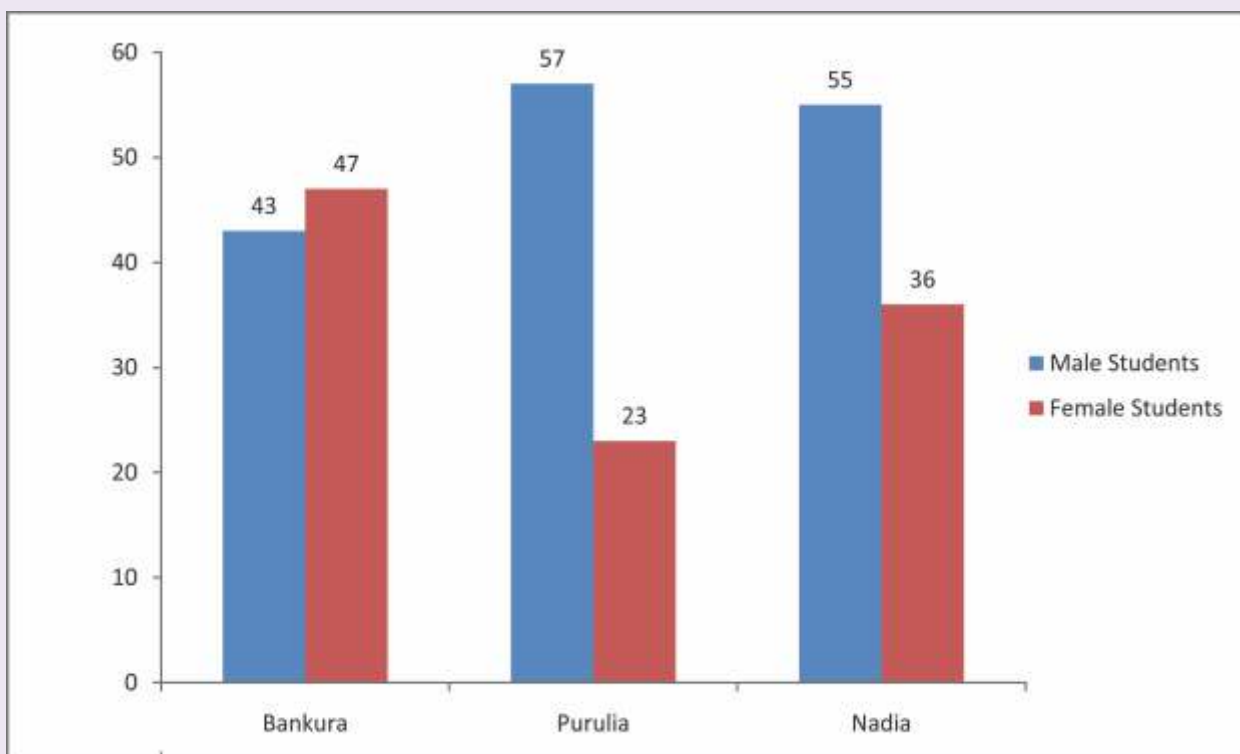
List of selected schools in 2018-19

District	Names of Schools
Bankura	<ol style="list-style-type: none"> 1. Fulberia High School (H.S), Bankura 2. Bankati High School, Bankura 3. Bankura Christian Collegiate School, Bankura 4. Bansidi High School (H.S), Bankura 5. Sibdas Central Girls School, Bishnupur, Bankura
Purulia	<ol style="list-style-type: none"> 6. Ladhurka High School, Purulia 7. Purulia Zilla School, Purulia 8. Chittaranjan High School, Purulia 9. Bamnia Bibekananda High School, Purulia 10. Laulara R.C. Academy, Purulia
Nadia	<ol style="list-style-type: none"> 11. Bidhan Chandra Memorial Govt. Girls' High School, Nadia 12. Ranaghat Bharati High (H.S.) School, Nadia 13. Muragachha High (H.S.) School, Nadia 14. Kalyani University Experimental High School, Nadia 15. Goas High School (H.S), Nadia





Gender Distribution of selected students from Bankura, Purulia and Nadia

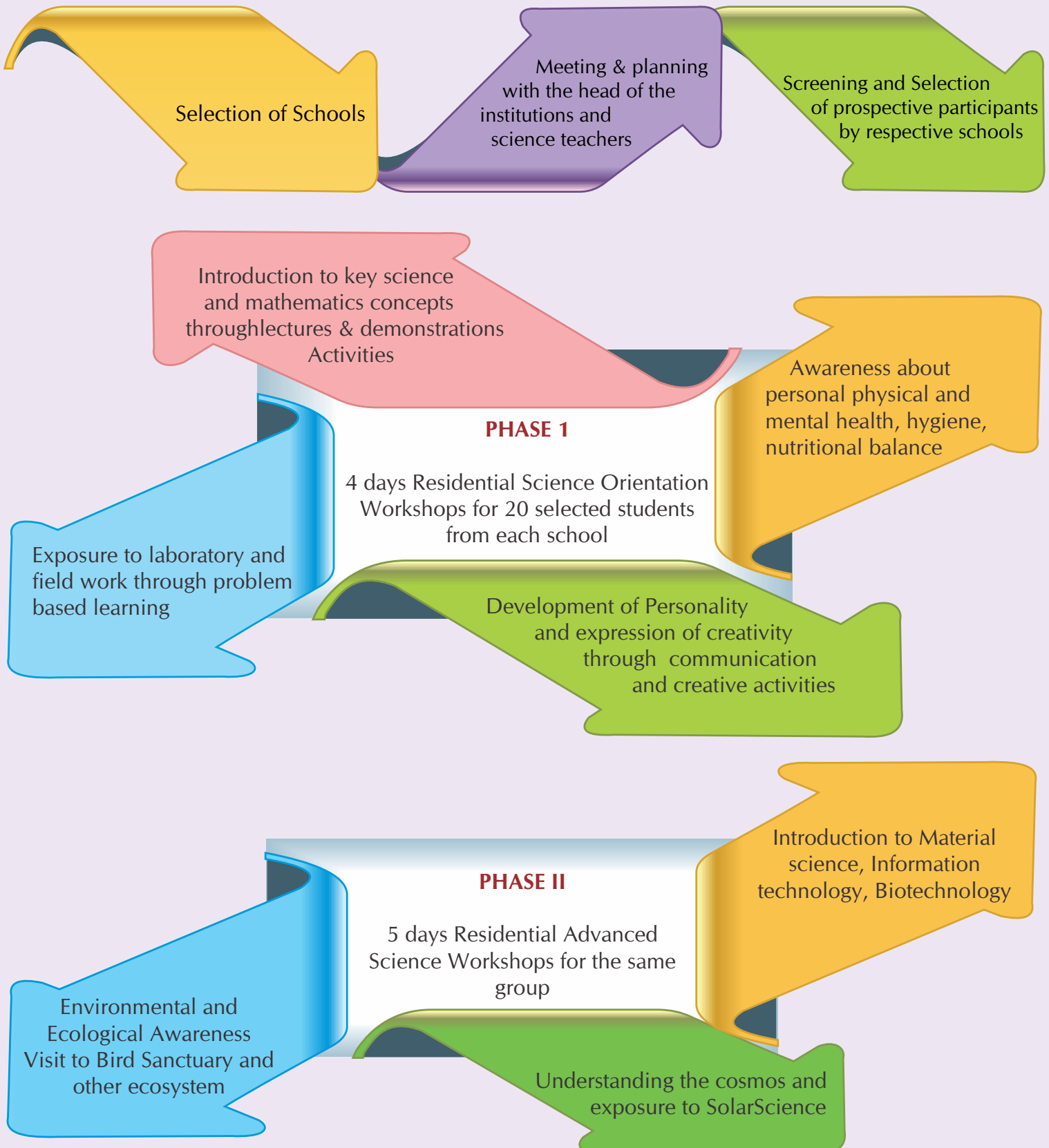


List of Mentors

- Sri Milan Chandra Gain; Uttar Rabindranagar Vivekananda H/S
- Ms Chaitali Mukherjee; Santoshpur Rishi Aurobindo Girls' School, Kolkata
- Sri Arup Sengupta; Garfa DNM High School, Kolkata
- Ms Anupama Sengupta; Jadavpur Sammilita Balika Vidyalaya, Kolkata
- Dr. Arati Mukhopadhyay; Howrah Jogesh Chandra Girls' School
- Sri Biswarup Mitra; Dum Dum Kumar Ashutosh Institution (Main) Boys', Kolkata
- Sri Subhadeep Bose; Esteemed Reciter; Eklavya Model Residential School, Jhargram
- Sri Pintu Kr. Sinha; Katwa K.D.I, Purba Bardhaman
- Sri Saptarshi Mondal; Tangrakhali P.S.P High School (H.S)
- Dr. Pijush Basak; Junior Scientific Officer, JBNSTS
- Dr. Subir Dasgupta; Maulana Azad College, Kolkata
- Dr. Abhishek Mukherjee; Maulana Azad College, Kolkata
- Dr. Tarak Nath Khan; Maulana Azad College, Kolkata



Workflow of the WBDS Program





- Dr. Subhankar Ghosh, St. Xaviers' College, Kolkata
- Sri Dipankar Das, Sky Watchers' Association, Kolkata
- Sri Samindra Basu, Sky Watchers' Association, Kolkata
- Sri Anirban Dey, Sky Watchers' Association, Kolkata
- Dr. Sanghamitra Sengupta, University of Calcutta, Kolkata
- Sri Sekhar Banerjee (Self-employed Electronics specialist)
- Prof. Parthasarathi Majumdar RKM Vivekananda University, Belur
- Dr. Nitin Chattopadhyay, Dept. of Chemistry, Jadavpur University
- Dr. Abhijit Kar, Scientific Officer; JBNSTS, Kolkata
- Dr. Smarajit Manna, Student Advisor; JBNSTS, Kolkata
- Dr. Paromita Roy, Deputy Director, JBNSTS
- Sri Subir Bhattacharya, Dum Dum Kishore Bharati School, Kolkata
- Dr. Abhrajyoti Ghosh, Bose Institute, Kolkata
- Sri Siddhartha Sankar Chattopadhyay, Bidhannagar Govt. High School
- Sri Sabyasachi Mitra, Mathematics teacher from New Delhi
- Sri Dipankar Sarkar, JBNSTS, Kolkata
- Smt. Sanchari Chattopadhyay, JBNSTS, Kolkata
- Dr. Goutam Basu, Bose Institute
- Dr. Dipanjali Majumdar, CSIR-NEERI, Kolkata
- Smt. Sampurna Bhattacharya, Musician, Kolkata
- Dr. Arindam Bhattacharyya, University of Calcutta, Kolkata
- Dr. Mrinal Mukherjee, Bankura University, Bankura
- Ms. Smita Nandi, Art Teacher, Ashok Hall, Kolkata
- Sri Dipankar Karmakar, Art Teacher, Heritage School, Kolkata
- Sri Sabyasachi Banerjee; Musician, Kolkata
- Sri Partha Pratim Roy; Senior Faculty, South Point High School, Kolkata
- Prof. Shyamal Chakrabarti; University of Calcutta



Science Workshops in the year 2017 –2018

December 2017

Special Science Awareness Workshop for 33 underprivileged girls from Painta Pannarani Balika Vidyalaya,
Purba Burdwan

January 2018

Science Orientation and Motivational Program for 350 students from 11 tribal schools held at Ekalavya Model School,
Jhargram

January 2018 – April 2018

6 Advanced Science Residential Workshops for 280 middle school students from 16 schools in
North Bengal, Birbhum and Malda (2017 -18 batch)

June 2018 – September 2018

5 Science Orientation Residential Workshops for 261 middle school students from 15 schools in
Bankura, Purulia and Nadia (2018 -19 batch)



Interesting Topics covered during workshops

Physical Science & Chemistry	Mathematics	Life Science
<ul style="list-style-type: none"> ● Solar Energy in daily life ● Night sky viewing by telescope ● Archimedes Principle ● Momentum & Conservation ● Creation of color using primary colors ● Effect of air pressure and height on a free moving pendulum ● Bernouli's Principle ● Principles of Sports Science. ● Making of pin-hole camera, microscope with single lens ● Reflection, Refraction, and total Internal Reflection ● Gravitational force, earth's rotation and spin motor of cricket ball ● Understanding Energy ● Preparation of colour using different chemical reactions ● Impact of heat and pressure on reactions ● Experiments on electric current ● Experiments on catalysts and indicators ● Acid-Base-indicators ● Impact of reactions 	<ul style="list-style-type: none"> ● Finding the Area of Quadrilateral and Square Root Algorithm ● Area of polygon in term of rectangle, square, hexagon and octagon inscribed in a circle ● System of Real Numbers ● Geometrical Riders in the fold of word problem ● The reformation geometry using quadrants, plotting coordinates and finding equation for coordinates. ● Properties of triangle and its characteristics. ● Fractionisation of quadratic function and Method of solving quadratic equation 	<ul style="list-style-type: none"> ● BMI & Body Temperature Mapping, ● Plants Pigments. ● Audiovisual exposure to the process of digestion with the experimentation of carbohydrate. ● Determination of Pulse Rate. ● Identification of cell, plant tissue. ● Food Adulteration ● Identification of starch. ● Microbial Activity ● Distribution of acidity in our alimentary canal. ● Nuances of Microbiology ● DNA structure and the application of DNA information ● Origin of Life ● Local Biodiversity ● Health, Hygiene and Menstrual Cycle ● Our Environment: We are in a state of War ● Microbes and Microscopy

'Don't tread success stories, you will only get a message. Read failure stories, you will get some ideas to get success.

A P J Abdul Kalam





THE JBNSTS DST INSPIRE SCIENCE CAMPS

**Learning Science
is a fun :
Creativity and innovation
can transform the way**



JBNSTS-DST INSPIRE SCIENCE CAMP

Rubbing shoulder with the best scientists of India



The genesis of INSPIRE Program

Innovation in Science Pursuit for Inspired Research (**INSPIRE**) was promulgated in 2009 by Department of Science and Technology (Government of India) to attract the top one per cent talented students of the country currently pursuing science in (10+2) standard. The initiative aspired to enthuse the students to research in science and technology which in turn would create a formidable Research & Development edifice of India. Furthermore, the conception of the methods of observation and experiment in the different branches of Science helps in developing a logical mind, critical judgment and emergence of creative faculties amongst the students which eventually facilitates in solving real-life problems of their lives.

Synthesis of JBNSTS & INSPIRE initiative

Jagadis Bose National Science Talent Search (JBNSTS) is India's foremost talent search institute in Eastern India. Since inception, the organisation has tirelessly been engaged in unearthing talent and nurturing the gifted minds into world's brightest minds. JBNSTS upholds a legacy of more than fifty years in non-formal science learning of the country. INSPIRE on the other hand, as the name suggests

JBNSTS, with its proficient expertise and experience, is considered as the pioneer institute of the nation for organizing INSPIRE science camps.

aims to motivate and inspire the talented young students who are on the threshold of higher education. The ethos of JBNSTS is entirely in tune to INSPIRE which is identifying, nurturing and motivating talented students studying science in West Bengal. Since 2009 till date, JBNSTS is accredited to organise fifty-seven (57) DST INSPIRE science workshops.

Workflow of JBNSTS DST-INSPIRE Science Camp: A unique endeavour

The INSPIRE Camp is envisaged with the following components as illustrated below.

- I. **Stimulation of young minds:** JBNSTS has created a platform wherein legendary professors and globally acclaimed scientists interact with the interns/ participants and engage the later in a holistic learning experience. The inspiring and informative lectures illumine the talented minds which in turn enable them to implement science to solve the problems in daily life.
- II. **Activity based learning:** The interns are endowed with high-tech laboratory and smart classroom facilities which provide them with experimental learning and hands on activities. The students learn the usage of modern physical, chemical and biotechnical tools and equipments as well as computer laboratory.
- III. **Project Presentation:** On the concluding day, the participants present their experiment data before the esteemed scientists who evaluate the work of the interns. This exciting phase involves the interns in team-work and brain storming session. The experimental activities culminate into detailed project presentation which encompasses, research, data analysis, summarizing of findings etc. providing a taste of research to the young students.



IV. Exposure to advanced Research & Technology:

It's imperative that the inherent faculties of the students are exposed to modern and advanced trends of science and technology which would plant the seedling of scientific thought process amongst the enthusiastic minds and satiate their scientific intelligence. Academic visits are held for students in the course of INSPIRE camps. An exhaustive list is mentioned below:

- Centre for Research in Nanoscience and Nanotechnology (CRNN), Kolkata
- Indian Association for the Cultivation of Science (IACS), Kolkata
- Indian Institute of Chemical Biology (IICB), Kolkata
- Variable Energy Cyclotron Centre (VECC), Kolkata

V. Pre-dinner sessions to enhance their communication skill and develop their personality. Debates and extempore on burning national and global issues, like climate change, gender bias etc.

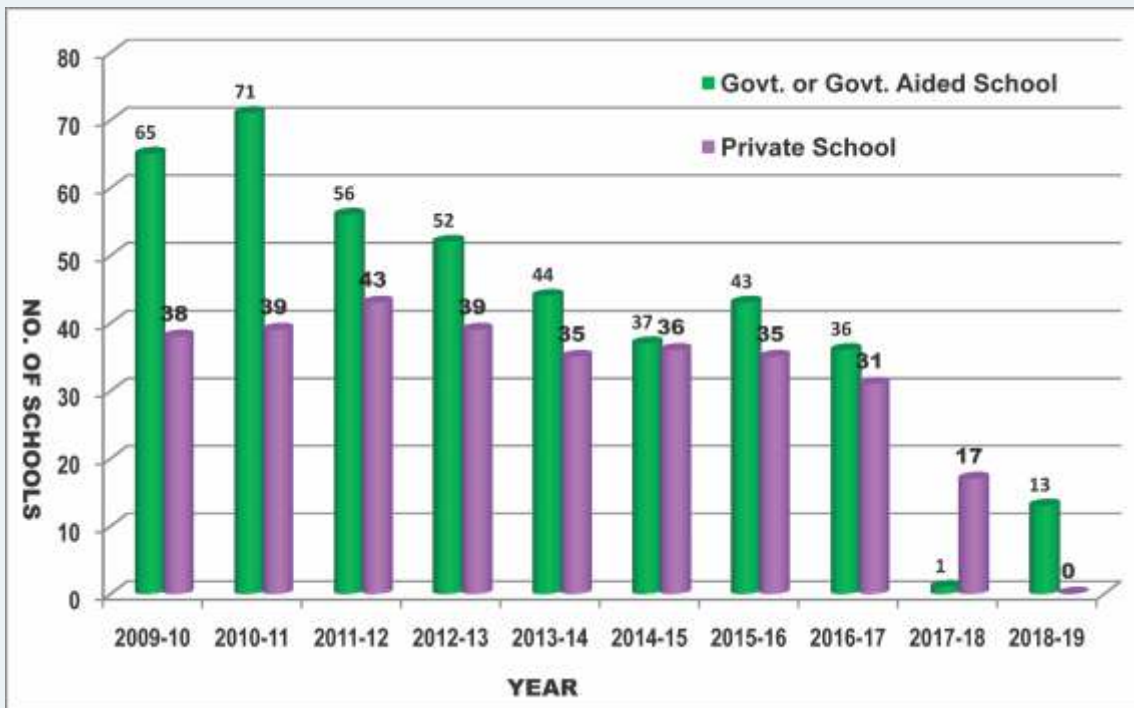


JBNSTS DST-INSPIRE Science Camp 2018 : At a glance

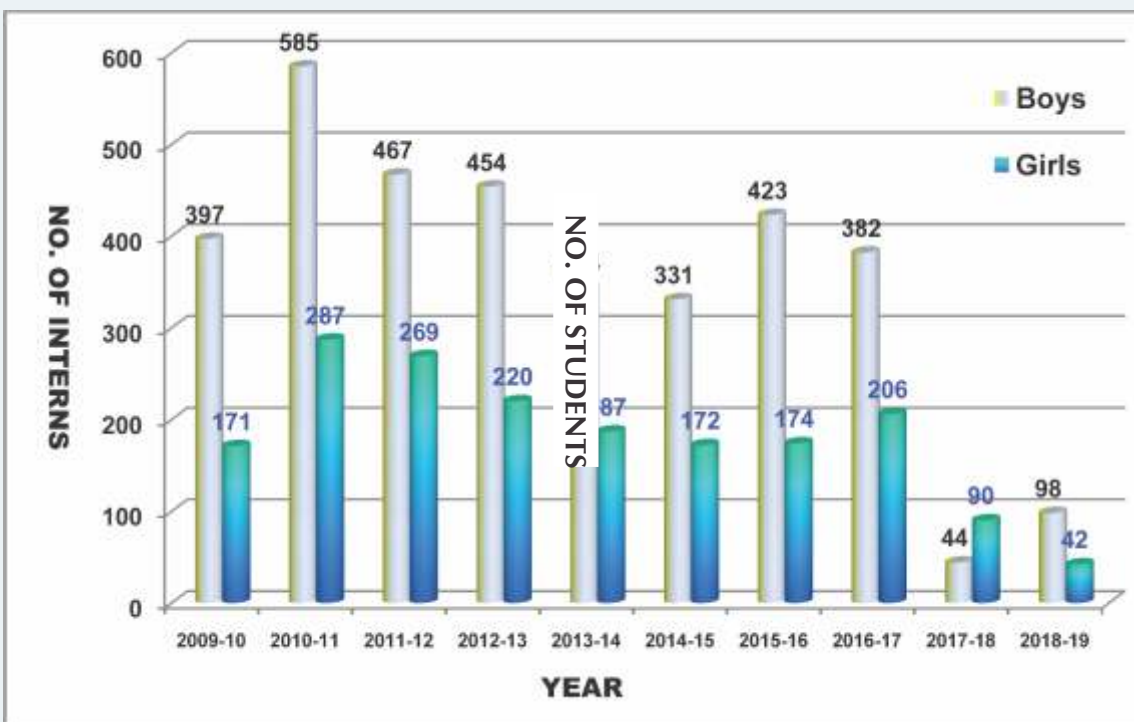
	Timeline	Number of Participating Schools	Interns Participated
Workshop 1	March 26-30, 2018	18	134
Workshop 2	September 18-22, 2018	13	140



Distribution of participation of Govt. / Govt. aided and Private schools in JBNSTS-INSPIRE Science Camp



Gender distribution of the participants in JBNSTS DST-INSPIRE Science Camp on a time scale



Snapshot of JBNSTS DST-INSPIRE Camps since inception

Timeline	2009 to 2018
Total number of Camps	57
Total Number of Interns (5343)	Male: 3525 + Female: 1818
Total number of schools participated	731
Total number of Mentors	391



Physics with the legendary teacher



Developing Communication skill



A discussion in climate change



Class in computer modelling



THE JBNSTS TALENT ENRICHMENT PROGRAM

**Nurturing the
Young
minds**

Talent Enrichment Program

To build up the best human resource

After identification of scholars through rigorous multiphase examination, JBNSTS provides exposure to the talented minds with the world of development of science and technology. This would streamline their inherent skills in science and propel them to achieve excellence in the domain. Amongst various nurturing initiatives undertaken by JBNSTS, Talent Enrichment Program is one such program which provides the scholars with opportunity to not only interact with renowned science professionals and experts from other fields of the society, but also visit academic institutions, interact with esteemed professionals, and engage in hands-on experiments in state-of-the-art laboratories of scientific research centers of national and international repute.

Modes of nurturing the young scholars:

- **Seminars, symposia and workshops:** This provides a platform for scholars to present their ideas on various science and technological issues. Inspiring lectures by eminent scientists, mathematicians and entrepreneurs expose the scholars to the diverse field of science and technology. This program also endow the scholars with the opportunity to interact with renowned scientists and glimpses of their significant contribution to the different field of science and technology.
- **Academic visits for Senior Scholars:** Scholars will not only be introduced to cutting-edge research but also encouraged to explore possibilities to build up their career in the area/s of their interest. These academic exposures lead to students understanding and formulating their short and long-term academic and career goals which eventually help them to grow into the best human resources.

Astronomy camp and training on Sky observation

This year, in keeping with the interest of our scholars in Astrophysics and Astronomy and the underlying principle of science governing in this field, a Talent Enrichment Program was organized



during 17-19th March at Kaikhali, South 24 Parganas. The exuberance and exhilaration were palpable amongst the scholars who had enjoyed the enormity of magnanimous black sky and learnt the usage of the telescope. The glimpse of the program is enumerated below:

Day & Date	Snapshot of Activities
Saturday 17 th March 2018	<ul style="list-style-type: none"> ❖ Reporting and registration at JBNSTS for all participants. ❖ Travel to Kaikhali and formal introduction with the participants. ❖ <i>Introduction to Telescopes</i> and how to handle them – by Mr. Dipankar Dey, Mr. Anirban Dey and Mr. Ankit Bhowmik. ❖ Lecture – 1: “<i>Observable Objects</i>” by Mr. Biplab Dey ❖ Naked eye observation, Introduction to Star Charts, formalities to be observed etc. ❖ Identifying visible Constellations and using the telescope to observe bright objects etc.
Sunday 18 th March 2018	<ul style="list-style-type: none"> ❖ Tour to Sunderbans ❖ Lecture – 2: “<i>Introduction to the Constellations</i>” by Mr. Biplab Dey ❖ Lecture – 3: “<i>Introduction to the Virtual Sky</i>” by Mr. Biplab Dey. ❖ Recapitulation and further discourse on constellations & DSOs, locating them using Charts, Practicing of usage of Telescopes etc.
Monday 19 th March 2018	<ul style="list-style-type: none"> ❖ Observations of some planets at dawn. ❖ Solar observation. ❖ Distribution of certificates and formal conclusion of the camp.



Participants Feedback in Astronomy Workshop



The dates 17th, 18th & 19th March 2018 would be my most memorable days in my life. Throughout this journey, I was constantly amazed. I saw planets, stars, constellations, nebulas, DSOs through my own eyes which I had read only in encyclopedias and documentaries. It's true that it left a permanent mark on me.

— Swastik Biswas,
JBNSTS Scholar

“Sky Observation Camp” is the first camp to my life about celestial beauty. The lectures and practical sessions are really wonderful. The members of the association are really good guide and gave full effort to us to recognize constellation. I will be highly obliges if they take such camp at least twice per annum and allow me to attend the camp(s).

— Pratik Dey,
JBNSTS Scholar



This camp is truly a charming experience. Experiencing through this camp changes my perspective of sky watching, and it now becomes a greater area for me. The specialty of the camp is much more. The lecture sessions and the amazing practical experience are very much impressive. Thanks to JBNSTS and Sky Watchers Association for organizing this wonderful event which enriches my knowledge about the changing sky.

— Ayan Karmakar,
JBNSTS Scholar





Orientation seminar for Senior and Bigyani Kanya Medha Britti Scholars

A two-day symposium (24/02/2018 - 25/02/2018) was held at JBNSTS Kolkata comprising Senior and Bigyani Kanya Medha Britti scholars. The scholars were exposed to gripping lectures which nourished their intellect and offered an outline of careers in science and technology. The students learnt about a higher level of science from the esteemed speakers who urged the scholars to maintain an analytical bent of mind and appreciate every nuance that appears in the sphere of science.

A glimpse of the topics:

Speaker	Title
Prof. (Dr.) Maitree Bhattacharyya	Why practicing Science is a challenge
Prof. Anuradha Lohia Presidency University, Kolkata	Why Should I Study Science?
Dr. D P Duari M P Birla Institute of Fundamental Research, M P Birla Planetarium, Kolkata	Astrophysics
Prof. Bimal Kumar Roy Indian Statistical Institute, Kolkata	Some Problems in Statistics, Computer Science and Cryptology
Dr Raka Dasgupta University of Calcutta, Kolkata	Gulliver's Voyage to the Scientific Lands of Lilliput and Giants
Prof. Soumitra Sengupta Indian Association for the Cultivation of Science	In Search of A Hidden World
Dr Sanghamitra Sengupta University of Calcutta, Kolkata	Harnessing The Genome Information in The Benefit of Society
Dr Sujoy Ghosh Institute of Post Graduate Medical Education and Research, Kolkata	Medical Education and Society
Prof. Ranjan Ganguly Jadavpur University, Kolkata	Capillary-Driven Fluid Transport On Paper-Based Micro-Fluidic Devices- The Future Of Low-Cost Healthcare
Dr Sayam Sen Gupta Indian Institute of Science Education and Research, (IISER) Kolkata	The world of Chemistry



A class with Dr. Sujoy Ghosh ⇒

⇐ Chemistry : The master of Science



⇐ Listening the interpretation of Statistics



Learning Genetics ⇒





THE JBNSTS TEACHERS' TRAINING PROGRAM

**Teaching is a
noble profession
but
being teacher
is not easy**

TEACHERS' TRAINING PROGRAM

Innovation in teaching and learning

India has come a long way since the world conference on education in Jomtien, 1990, which pledged to focus on basic education. The steady progress towards universal elementary education over almost three decades saw the momentum further strengthened with enactment of the right of children to free and compulsory education (RTE) act, 2009.

In recent times, merely imparting education in schools and institutions is not been considered suffice. Thus the focal point of JBNSTS Teachers' Training Program (TTP) is to address the discord that lies in the teaching of science and the application of learning to solve the real-life problem. This initiative aims to conduct workshops for teachers of government-run institutions (middle and senior schools) to strengthen the teaching skills, to improve student-centered quality education and to equip the teachers for activity based teaching. JBNSTS, Kolkata has been organizing Teachers' Training Program under the aegis of Government of West Bengal (Department of Science & Technology) for integrating dynamic science teaching module amongst middle and high school level science teachers.

Objectives of the Program

- To acquaint participants with the significance and opportunities of inquiry-based science teaching through the use of open and online resources in STEM education.
- To support the continuous professional development of teaching professionals to increase their skills and competences to become innovators and creators of content rather than being users of existing material
- To enable teachers to successfully find, develop and apply the innovative tools and multidisciplinary teaching techniques that will help them create attractive science lessons and thus foster the interest of their students in science topics.





- To introduce and apply innovative teaching methodologies and use of ICT tools in STEM teaching settings.
- To lead teachers to involve students in finding their own problems, testing ideas, receiving feedback, and working collaboratively with other students or practitioners beyond the school classroom.
- To give teachers the opportunity to interact and work with scientists to develop new learning opportunities for their students.



JBNSTS-DST (Government of West Bengal), Teachers' Training Program

Under the aegis of Department of Higher Education, Science & Technology and Bio-technology, Government of West Bengal, JBNSTS has effectively discharged "Teachers' Training Program" for a long time. The Institute particularly owes it to the state government for extending with necessary budgetary allocation, and diverse requisites for successful implementation of the program. The aim of this project is to create a practical and functional scientific literacy amongst the teachers and expose their dormant faculties to the dynamic sphere of science and technology so that they may impart the knowledge to the end users (in this case the students) in a more enticing manner.

Snapshot of events

WORKSHOP I

Timeline:	16/01/2018 - 19/01/2018
Venue:	JB-Centre of Excellence, JBNSTS Kolkata
Participation:	68 teachers from Kolkata, North & South 24 Parganas

WORKSHOP II

Timeline:	06/03/2018 - 08/03/2018
Venue:	Maharaja Uday Chand Women's College, Burdwan
Participation:	131 teachers from Burdwan district

WORKSHOP III

	A significant endeavour with Royal Society of Chemistry
Timeline:	07/05/2018 – 8/05/2018
Venue:	JB-Centre of Excellence, JBNSTS Kolkata
Participation:	64 teachers from North & South Kolkata, Howrah, Hooghly, Jhargram.



Teachers training program in collaboration with Royal Society of Chemistry



Teachers standardizing experiments in the workshop

JBNSTS-NCSTC-DST (Government of India), Teachers' Training Workshop

JBNSTS is acclaimed to conduct teachers training workshops/ symposiums for over a decade. In keeping with the competence of JBNSTS to discharge innovative programs and events, NCSTC-DST (Government of India) collaborated with JBNSTS to conduct programs for secondary and high school science teachers and impart innovative science teaching methods across the state coupled with the creation of activity-based unique teaching module. Dr Abhijit Kar, Scientific Officer of JBNSTS has assumed the role of Principal Investigator in this project.

Three workshops were organized in the districts namely, Murshidabad, Purba Medinipur and Alipurduar. The successive symposiums witnessed the substantial presence of school teachers who were either from the middle or senior level science stream. This is a sustainable program which is supposed to create practical scientific literacy for the school teachers which in turn would benefit the students of West Bengal.

Snapshot of Events

WORKSHOP I

Timeline:	18/12/2017 - 20/12/2017
Venue:	Krishnath College, Behrampore, Murshidabad
Participation:	100 teachers from Murshidabad district

WORKSHOP II

Timeline:	09/01/2018 - 11/01/2018
Venue:	Prabhat Kumar College, Contai, Purba Medinipur
Participation:	90 teachers from Purba Medinipur district

WORKSHOP III

Timeline:	20/02/2018 - 22/02/2018
Venue:	Alipurduar College, Alipurduar
Participation:	117 teachers from Alipurduar district

The core subjects explored in the workshops are Physical Science, Life Science & Mathematics.





➤ Demonstration of the concept Total Internal Reflection during the Physical Activity based classes at Muragachha Govt. College Nadia

➤ Interactive session on Mathematical Science at K N College Murshidabad



➤ Lecture given by Dr. Abhijit Kar on how to make science learning interesting during the workshop at P K College Contai

➤ Lecture given by Dr. Bhupati Chakrabarti on Physical Science at APC Roy Govt. College Siliguri







Names and addresses of resource persons Involved in Teachers Training Program:

Sl.No.	Name of the Expert	Affiliation
1.	Dr. Arnab Chakraborty	Assistant Professor, ISI Kolkata
2.	Dr. Partha Karmakar	Deputy Secretary, Academic, W.B.B.S.E, Kolkata
3.	Dr. Uttam Ghosh	Assistant Professor, Calcutta University, Kolkata
4.	Dr. Smarajit Manna	Student Advisor, JBNSTS Kolkata
5.	Dr. Bhupati Chakrabarti	Ex-Professor, City College Kolkata
6.	Dr. Riddhi Majumder	Assistant Professor, St. Xavier's College
7.	Dr. Debajyoti Ghoshal	Assistant Professor, Jadavpur University
8.	Dr. Saugata Ghosh	Assistant Professor, APC Roy Govt. College, Siliguri
9.	Dr. Samar Bagchi	Former Director of BITM Kolkata
10.	Dr. Sutapa Sanyal	Assistant Professor, Krishnagar Govt. College, Nadia
11.	Dr. Amit K Chakraborty	Associate Professor, NIT Durgapur
12.	Dr. Sanjay Ghosh	Bose Institute Kolkata
13.	Dr. Laxmi Narayan Mandal	Ex-Principal, Suri Vidyasagar College
14.	Dr. Bikramjit Basu	IISC Bangalore
15.	Dr. Sudhendu Mandal	Suri Vidyasagar College
16.	Dr. Partha Mahata	Jadavpur University/Suri Vidyasagar College
17.	Dr. Pranab K Halder	Krishnath College, Murshidabad
18.	Dr. Somnath Bhattacharyya	Consultant Environmental Science
19.	Dr. Rajib Mukherjee	Krishnath College, Murshidabad
20.	Dr. Sanatan Chattopadhyay	University of Calcutta
21.	Dr. Bidyut K Senapati	Prabhat Kumar College, Contai
22.	Dr. Aveek Samanta	Prabhat Kumar College, Contai
23.	Dr. Partha Deb Ghosh	Kalyani University, Kalyani
24.	Dr. Dhruvajyoti Chattopadhyay	Vice Chancellor, Amity University
25.	Mr. Bikash Bhadra	Hare School, Kolkata
26.	Dr. Santanu Raut	Mathabhanga College, Coochbehar
27.	Dr. Shubhas Bhattacharyya	Jadavpur University
28.	Dr. Shubhash Chandra Samanta	Medinipur College



Sl.No.	Name of the Expert	Affiliation
29.	Dr. Pradipta Panchadhyayee	Prabhat Kumar College, Contai
30.	Dr. Abhisek Basu	Behala College, Kolkata
31.	Dr. Jyotsna Das	Alipurduar College
32.	Dr. Apurba Narayan Das	Alipurduar College
33.	Dr. Jyoti Bikash Nath	Alipurduar College
34.	Dr. Arindam Rana	City College, Kolkata
35.	Akash Choudhury	APC Roy Govt. College, Siliguri
36.	Sharmistha Bhattacharyya	Ananda Ashram Sarada Vidyapith
37.	Ranjan Mahisal	Analberia High School
38.	Dr. Sandip Sen	National Academy of Science, Kolkata
39.	Laboni Chatterji	Alipurduar School
40.	Sk. Samsul Alam	Silute Basantapur Uchhya Vidyalaya, Burdwan
41.	Dr. Subir Nag	Satyapriya Roy College of Education
42.	Mrs. Jaya Swaminathan	Royal Society of Chemistry Teacher Developer , Chennai
43.	Dr. Subir Dasgupta	Maulana Azad Govt. College, Kolkata
44.	Dr. Pinaki Majumder	Maharajadhiraj Uday Chand Women's College, Burdwan
45.	Dr.Sanat Manik	Burdwan Raj College
46.	Dr. Debabrata Mukherjee	Katwa Bharati Bhavan High School
47.	Dr Sukriti Ghosal,	Principal, Maharajadhiraj Uday Chand Women's College, Burdwan
48.	Shri Debasis Chakraborty	Adhata High School
49.	Dr. Anurag Danda	WWF, New Delhi Chapter
50.	Shri Subrata Biswas	SCERT
51.	Ms.Alice Philip	Royal Society of Chemistry

If you are born with fame, it is an accident. If you die with fame, it is an achievement.

Abdul Kalam



If you FAIL, never give up because F.A.I.L. means "First Attempt in Learning". END is not the end; in fact E.N.D. means "Effort Never Dies". If you get NO as an answer, remember N.O. means "Next Opportunity".

A P J Abdul Kalam



THE JBNSTS BIOTECHNOLOGY LABORATORY

**Biotechnology
Laboratory :
Preparing for
a new era**



Biotechnology Laboratory for high school students

The state-of-art facility

Inception of JBNSTS Biotechnology Laboratory

The Biotechnology Laboratory has been set up in JBNSTS with the aim to permeate hands-on experience of Biotechnology related experiments to the high school students of West Bengal which can be complimentary to the text book knowledge. The laboratory has been established and developed under the financial support from the Department of Higher Education, Science & Technology and Biotechnology, Government of West Bengal. JBNSTS has created this state-of-art platform for technological innovations and scientific research that would act as a catalyst for the nation's development and prosperity.

Objectives of JBNSTS Biotechnology Laboratory

- ❖ To enable the high school students for a better exposure to the world of innovation and subsequent understanding of biotechnological research and cutting edge technology.
- ❖ To mentor the students to develop an ingenuity of biological topics and issues.
- ❖ To aware the students regarding application of biotechnology in the field of agriculture and healthcare system.
- ❖ Making them conversant with several modern biotechnological tools and molecular mechanisms to facilitate their further course of learning in biological sciences.
- ❖ To expose the students in hands-on experiments and research.
- ❖ To provide the students with new thoughts and ideas and endow them with an analytical outlook for decision making in the ever-changing environment for proper placement in the academic career.

Setting up the Biotechnology Laboratory Infrastructure

A state-of-the-art Biotechnology Laboratory has been created at JBNSTS which aims to introduce School students to the fundamental scientific principles of Biotechnology. The introduction to Biotechnology emphasizes how key concepts from biology, chemistry, physics and mathematics may be applied to solve real life problems. Another unique aspect of Biotechnology Laboratory is that the students will learn both the applications and the usage of modern scientific equipments. The knowledge and skills make the students empowered with broad understanding of biotechnology and the impact it makes on the society.



Snapshots of Biotechnology Laboratory at JBNSTS



JBNSTS Biotechnology Workshop: Hands-on experience for a day

Perspective: The biotechnology workshop aspires to enthuse the scientific temper of the students and teachers to modern biology learning and connect them to the real experimental scheme of ideas which was otherwise not available in the ambience of school curriculum. The following grid explicates four workshops and the topics discussed.

Participating School/ Institution	Title/ Topic	Speaker/ Lecturer
Santoshpur Rishi Aurobindo Balika Vidyapith	Learning everyday techniques of a Biolab	Dr Sanghamitra Sengupta Department of Biochemistry University of Calcutta
Ballygunge Government High School	Welcome to the world of Biotechnology	Dr Abhrajyoti Ghosh Department of Biochemistry Bose Institute, Kolkata
Jadavpur Vidyapith	Genetic Engineering: An Accelerated Biotechnology	Dr Samudra Prosad Banik Department of Microbiology Maulana Azad College, Kolkata
Jadavpur Vidyapith	Biotechnology: A new challenge	Dr Abhrajyoti Ghosh Department of Biochemistry Bose Institute, Kolkata

Glimpses of students enjoying experiments at Biotechnology Laboratory, JBNSTS



↪ Interaction with the students

DBT (WB) officials at a visit at JBNSTS ↪



↪ Extracting DNA from bacteria :
training for high school students



Learning to use the Laminar airflow ↪





THE JBNSTS CELEBRATION OF SPECIAL DAY

**An inclusive way
to celebrate
Human Right in the
Realm of Science**

Science Day Celebration

A Collaboration with INSA

A one-day seminar with the theme “**Science for the development of the Nation**” was jointly organized by Indian national science academy (INSA), Kolkata chapter and Jagadis Bose National Science Talent Search (JBNST) on 28th of February, 2018 at JBNSTS. The objective of the program was to motivate the bright young minds that are on the threshold of higher education to decipher the significance of Science Day with the marvel of C V Raman and the discovery of Raman Effect. As many as 75 students participated in the program along with 14 teachers. JBNSTS welcomed the eminent guests and students and their accompanied teachers and outlined the importance of National Science Day observed on 28th of February.

Snapshot of events

Speaker	Topic of Lecture
Dr. Hemanta Majumder Convener INSA (Kolkata Chapter)	Inaugural Speech
Prof. Arun Lahiri Majumder Bose Institute, Kolkata	Evolution of Biology: Chromosomes to Genomics
Prof. Soumitra Sengupta Indian Association for Cultivation of Sciences, (IACS) Kolkata	The Voice of Cosmos: Einstein and the Gravitational Wave
Quiz Session	High School Students



List of participating Schools

Sl No.	Name of the Institutions
1	Bagbazar Multipurpose Girls' High School
2	Ballygunge Govt. High School
3	Behala Girls' High School
4	Chetla Boys High School
5	Garden Reach Nut Behari Girls' High School
6	Govt. Sponsored Multipurpose Taki House Boys School
7	Jadavpur Sammilita Balika Vidyalaya
8	Jadavpur Vidyapith
9	Jodhpur Park Boys' School
10	Kumar Ashutosh Institution Main Boys
11	Muraripukur Govt. Sponsored (H.S) Boys
12	Netaji Nagar Balika Vidyamandir
13	Sailendra Sircar Vidyalaya (Govt. Sponsored)
14	Surah Kanya Vidyalaya Girls (Govt. Sponsored)



STATE SCIENCE FAIR-2018

In collaboration with JBNSTS

With the inspiration of Chief Minister Mamata Banerjee, the State Youth Services Department organised the West Bengal State Student Youth Science Fair 2018, a competitive exhibition of science models. JBNSTS, on the other hand, is India's first science talent search organisation and has been nurturing young students to ignite their minds aiming innovation and discoveries. Thus their collaboration successfully presented an excellent science fair at Netaji Indoor Stadium during 26-28 September 2018. The program consisted of the segments namely; competition of (Secondary, Higher Secondary and Undergraduate) students in scientific model construction, Quiz contest and Meet the Scientist.

The inaugural day was marked by the gracious presence of Dr Partha Chatterjee, Hon'ble Minister of the Department of Higher Education, Science & Technology and Biotechnology, Govt. of West Bengal, Mr Laxmi Ratan Shukla Hon'ble Minister of State, Youth Services and Sports, Prof. (Dr.) Maitree



Inauguration of the State Science Fair : Director, JBNSTS with the eminent presence of Dr. Partha Chatterjee (Hon'ble Minister, Dept. of Department of Higher Education, Science & Technology and Biotechnology), Mr Laxmi Ratan Shukla (Hon'ble Minister of State, Youth Services and Sports) and other dignitaries.



Dr. Dipankar Banerjee delivering an inspiring discourse on Astrophysics



Dr. Samir Kumar Pal presenting an enthralling lecture to the audience.

Bhattacharyya, Director, JBNSTS and Executives and officers of several government departments. This was followed by an interactive session named "Meet the Scientist". Dr Samir Kumar Pal (Senior Professor, S N Bose National Centre for Basic Sciences, Kolkata) delved into an exhilarating discourse titled "Development of Swadeshi Technology for our Real Freedom". Dr Dipankar Banerjee (Professor, Indian Institute of Astrophysics, Bangalore) was the next speaker who spoke about *Astrophysics*. The students enjoyed the interaction with the eminent scientists which satiated their scientific intelligence.

The concluding day consisted of the valedictory session, prize distribution ceremony which brought closure to the august program. JBNSTS acknowledges the state government for creating a platform wherein, not only legendary science professionals inspire the talented students, but also provide them with an outline of careers in science and technology in their formative years.

MOMENTS TO CHERISH.....



Hon'ble Chief Minister Mamata Banerjee has always taken keen interest in the activities of JBNSTS. Her visit in JBNSTS at 2015 is still considered as one of the cherished experiences for the entire staff member and students of the institution. Furthermore, her interaction with students (in science workshop) held in our campus left an indelible imprint in the latter's minds. JBNSTS humbly acknowledges her continuous and dynamic involvement in this regard.





REPORT ON ACTIVITIES 2018

December 2017

16/12/2017: Annual Award Ceremony held at Science City, Kolkata.

Scientific Lecture Session:

Lecture delivered by

- i. Prof. Krishna N Ganesh, Director, IISER, Tirupati
- ii. Prof. Mahan Maharaj, School of Mathematics, TIFR, Mumbai

Prize Distribution Session:

Invocation

Welcome address by Prof. (Dr.) Maitree Bhattacharyya, Director, JBNSTS, Kolkata.

Chief Guest's address by Prof. Krishna N Ganesh, Director, IISER, Tirupati.

Speech by Guest of Honour

Prof. Sanghamitra Bandyopadhyay, Director, Indian Statistical Institute, Kolkata.

Speech by the Distinguished Guests

Prof. Mahan Maharaj, School of Mathematics, TIFR, Mumbai.

Shri. Sushanta Chakraborty, Jt. Secy., Department of Higher Education, Science & Technology and Biotechnology; Government of West Bengal.

Presidential Speech

Prof. Amitava Raychaudhuri, Sir Tarak Nath Palit Professor of Physics, Calcutta University & Chairman JBNSTS.

Felicitation

Shri Sujit Baran Chanda, retired employee of JBNSTS was felicitated by Prof. Amitava Raychaudhuri, Chairman JBNSTS.

Distribution of Certificates

- Junior JBNSTS Scholars
- Junior JBNSTS Encouragement Awardees
- Bigyani Kanya Medha Britti Awardees
- Senior JBNSTS Scholars

Special Appreciation

- Top 10 Boy and 10 Girl scholars (rank as per final merit list) were awarded with one laptop each.

Award Distribution

- Ramakrishna Mission Vidyalaya, Narendrapur received Best School Award, 2017 in both Junior & Senior categories.
- Special Awards were given to Rahara Ramakrishna Mission Boys' Home High School, Kolkata and Kolaghat Thermal Power Plant High School, East Midnapore for the performance of the students from these schools in Junior Talent Search Examination, 2017.



Vote of Thanks

Dr. Paromita Roy, Deputy Director, JBNSTS followed with National Anthem which concluded the august ceremony.

18/12/ - 22/12/2017: “WBDS District students' science Workshop” supported by Department of Higher Education, Science & Technology and Biotechnology, Government of West Bengal for middle school students (33) (Painta Pannarani Balika Vidyalaya, Purba Burdwan and Modern Land Girls' High School, Kolkata) held at JB-Centre of Excellence, Kolkata.

Welcome address by Prof. Maitree Bhattacharyya, Director, JBNSTS and Dr. Paromita Roy, Deputy Director, JBNSTS.

Speakers:

- (1) Dr. Smarajit Manna, JBNSTS, Kolkata.
- (2) Shri Susanta Chakrabarti, Joint Secretary, Govt. of West Bengal.
- (3) Dr. P Basak, Calcutta University, Kolkata.
- (4) Dr. A Pramanik, Calcutta University, Kolkata.
- (5) Dr. Punarbasu Chowdhuri, Calcutta University, Kolkata.
- (6) Shri S S Chattopadhyay, Bidhannagar Govt. High School, Kolkata.
- (7) Smt. A Sengupta, Formerly of Jadavpur Sammilani Balika Vidyalayak, Kolkata.
- (8) Smt. S Bhattacharya, Formerly of Anandaashram Balika Vidyapith, Kolkata.
- (9) Dr. C Mukherjee, Santoshpur Rishi Aurobindo Balika Vidyapith, Kolkata.
- (10) Mr. Pratyay Raha, Musician, Kolkata.
- (11) Shri P Sinha, Katwa Kasiram Das Institution, Burdwan.
- (12) Dr. A Mukhopadhyay, Jogesh Chandra Girls' School, Howrah.

“Sky Watching”: at JBNSTS roof top, Kolkata – conducted by Indian Sky Watchers Association, Kolkata. Participants of the Workshop visited at BITM, Kolkata.

18/12/ - 20/12/2017: “JBNSTS-NCSTC- DST Science Teachers'(100) Training Program” held at Krishnath College, Behrampore, Murshidabad.

Welcome Address by Dr. Sujata Bagchi Banerjee, Principal In Charge, K N College, Behrampore.

Address by Guest of Honour Prof. Maitree Bhattacharyya, Director, JBNSTS, Kolkata, and Smt. Purabi Biswas Dey, D.I. of School (S.E.), Murshidabad.

Speakers:

- (1) Dr. Sanatan Chattopadhyay, University of Calcutta, Kolkata.
- (2) Dr. Somnath Bhattacharyya, Consultant Environmental Science, Kolkata.
- (3) Dr. Partha Karmakar, Muragachha Government, College, Nadia.
- (4) Dr. Sutapa Sanyal, Krishnagar Government College, Nadia
- (5) Dr. Amit Kumar Chakraborty, National Institute of Technology, Durgapore.
- (6) Dr. Uttam Ghosh, University of Calcutta, Kolkata.



- (7) Dr. Pranab K Halder, Krishnath College, Behrampore, Nadia.
- (8) Dr. Debajyoti Ghoshal, Jadavpur University, Kolkata.
- (9) Dr. Riddhi Majumder, St. xavier's College, Kolkata.
- (10) Dr. Abhijit Kar, JBNSTS, Kolkata.
- (11) Dr. Smarajit Manna, JBNSTS, Kolkata.
- (12) Dr. Laxmi Narayan Mandal, Suri Vidyasagar College, Birbhum.
- (13) Dr. Arnab Chakraborty, ISI, Kolkata.

January 2018

04/01/2018 One day seminar in memory of Mrs. Deepawati Sen, former Director, JBNSTS :held at JB-Centre of Excellence, Kolkata.

Welcome address was delivered by Professor Maitree Bhattacharyya, Director, JBNSTS, Kolkata.

In honour of her work and legacy, Professor Jayanta K Bhattacharjee, Distinguished Emeritus Fellow, Department of Theoretical Physics, Indian Association for the Cultivation of Science was delivered Mrs. Deepawati Sen Memorial Lecture. His lecture was "Pattern Formation in the World around Us: A Common Theme".

Speakers:

- (1) Prof. Papiya Nandy, JB – Scholar and former Director, JBNSTS.
- (2) Dr. Ashesh Nandy, JB – Scholar.
- (3) Prof. Tathagata Ray, JB-Scholar and Governor of Tripura.
- (4) Shri Arijit Dutta Chaudhury, Director, Science City, Kolkata.
- (5) Dr. Krishanu Moulik, JB – Scholar and currently based with ISI, Kolkata.
- (6) Dr. Deepak Kar, JB – Scholar.
- (7) Shri Soumya Ray, JB – Scholar and formerly of West Bengal Telecom Circle.
- (8) Dr. Amitava Lahiri, JB – Scholar and currently based with SN Bose National Centre for Basic Sciences, Kolkata.
- (9) Dr. Susmita Sur Koley, JB – Scholar and formerly of ISI, Kolkata.
- (10) Dr. Barnik Choudhuri, JB – Scholar and presently associated with Jawaharlal Nehru Hospital Kalyani, Nadia.
- (11) Dr. Paromita Roy, JBNSTS, Kolkata
- (12) Shri Subhash Chandra Basu, formerly of JBNSTS, Kolkata.
- (13) Shri Santimoy Biswas, formerly of JBNSTS, Kolkata.

08/01/ - 12/01/2018: "WBDS District students' science Workshop" supported by Department of Higher Education, Science & Technology and Biotechnology, Government of West Bengal for middle school students (47) (Krishnapur High School, Burdwan, Udapalli Siksha Niketan, Burdwan and Malda Girls' High School, Malda) held at JB-Centre of Excellence, Kolkata.

Welcome address by Prof. Maitree Bhattacharyya, Director, JBNSTS.

**Speakers:**

- (1) Activity session at JBNSTS Laboratory by Dr. Smarajit Manna and Shri Puskar Naskar, JBNSTS Kolkata.
- (2) Shri Sabyasachi Mitra, Calcutta International School, Kolkata.
- (3) Dr. Abhrajyoti Ghosh, Bose Institute, Kolkata.
- (4) Shri Dipankar Sarkar, JBNSTS, Kolkata
- (5) Shri Siddhartha Chattopadhyay, Bidhannagar Govt. High School, Kolkata.
- (6) Smt. Sanchari Chattopadhyay, JBNSTS, Kolkata.
- (7) Shri Arup Sengupta, DNM High School, Kolkata.
- (8) Dr. Sharmistha Bhattacharya, Ananda Ashram Balika Vidyalaya, Kolkata

“Sky Watching”: at JBNSTS roof top, Kolkata – conducted by Indian Sky Watchers Association, Kolkata. Participants of the Workshop visited at Chintamani Kar Park with Dr. Subir Dasgupta and Team.

09/01/- 11/01/2018: “JBNSTS-NCSTC- DST Science Teachers' Training Program”(90) held at Prabhat Kumar College, Contai, Purba Mednipur.

Address by Guest of Honour Shri Soumendu Adhikari, President, G. B. P K College, Contai, Shri Subhamoy Bhattacharyya, S.D.O. Contai and Shri Sujit Kumar Maity, D.I. of Schools, (S.E), Contai.

Speakers:

- (1) Dr. Abhijit Kar, JBNSTS, Kolkata.
- (2) Dr. Ranjan Mahisal, Analberia High School, Copntai, Purba Mednipur
- (3) Dr. Riddhi Majumder, St. Xavier's College, Kolkata.
- (4) Dr. Bidyut Kumar Sanapati, P K College, contain, Purba Mednipur.
- (5) Dr. Uttam Ghosh, University of Calcutta, Kolkata.
- (6) Dr. Laxmi Narayan Mandal, Suri Vidyasagar College, Birbhum.
- (7) Dr. Subhash Samanta, Mednipur College, Mednipur.
- (8) Dr. Pradipta Panchadhyayee, P K College, Contai, Purba Mednipur.
- (9) Dr. Bhupati Chakrabarti, Formerly of City College, Kolkata.
- (10) Dr. Aveek Samanta, P K College, Contai, Purba Mednipur.
- (11) Dr. Debajyoti Ghoshal, Jadavpur University, Kolkata.
- (12) Dr. Abhisek Basu, Behala College, Kolkata.

16/01/- 19/01/2018: “A 4 days Science Teachers' Training Program for high school and middle (68) school Science Teachers” held at JB-Centre of Excellence, Kolkata, organized by JBNSTS with financial support from Department of Higher Education, Science and Technology and Biotechnology, Government of West Bengal.

Inaugural Lecture by Prof. Maitree Bhattacharyya, Director, JBNSTS.



Speakers:

- (1) Dr. Sanjib Ghosh, Adamas University, Kolkata.
- (2) Shri Debashis Chakraborty, Adhata High School, Kolkata.
- (3) Prof. Dhruvajyoti Chattopadhyay, Amity University, Kolkata
- (4) Shri Samar Bagchi, former Director, BITM, Kolkata
- (5) Dr. Sutapa Sanyal, Krishnagar College, Nadia.
- (6) Dr. Sharmistha Bhattacharyya, Ananda Ashram Balika Vidyalaya, Kolkata
- (7) Dr. Laxmi Narayan Mondal, Ex. Principal, Suri Vidyasagar College, Birbhum.
- (8) Dr. Uttam Ghosh, Calcutta University, Kolkata.
- (9) Dr. Smarajit Manna, JBNSTS, Kolkata.
- (10) Dr. Abhijit Kar, JBNSTS, Kolkata.
- (11) Prof. Subir Chandra Dasgupta, Maulana Azad College, Kolkata.
- (12) Shri Subrata Biswas, SCERT
- (13) Dr. Riddhi Majumder, St. Xavier's College, Kolkata.
- (14) Dr. Partha Karmakar, WBBSE, Kolkata.
- (15) Shri Anurag Danda, IMT Gaziabad.

29/01/ - 02/02/2018: "WBDS District students' science Workshop" supported by Department of Higher Education, Science & Technology and Biotechnology, Government of West Bengal for middle school students (56) (Raina Jagatmata Balika Vidyalaya, Burdwan, Burdwan Municipal Girls' High School, Burdwan and Lalit Mohan Shyam Mohini High School, Malda) held at JB-Centre of Excellence, Kolkata.

Welcome address by Prof. Maitree Bhattacharyya, Director, JBNSTS.

Speakers:

- (1) Activity session at JBNSTS Laboratory by Dr. Smarajit Manna and Dr. Abhijit Kar, JBNSTS Kolkata.
- (2) Dr. Sanghamitra Sengupta, University of Calcutta, Kolkata.
- (3) Shri. Arup Sengupta, DNM High School, Kolkata
- (4) Dr. Chaitali Mukherjee, Santoshpur Rishi Aurobindo Balika Vidyapith, Kolkata.
- (5) Prof. Nitin Chattopadhyay, Jadavpur University, Kolkata.
- (6) Shri Subhankar Ghosh, St. Xavier's College, Kolkata.
- (7) Shri Subir Bhattacharya, Dum Dum Kishore Bharati High School, Kolkata.
- (8) Music Session by Ms. Sampurna Bhattacharya, Kolkata.
- (9) Smt. Anupama Sengupta, Science Communicators Forum, Kolkata.

"Sky Watching": at JBNSTS roof top, Kolkata – conducted by Indian Sky Watchers Association, Kolkata. Participants of the Workshop visited at Chintamani Kar Park with Dr. Subir Dasgupta and Team.



February 2018

12/02/ - 16/02/2018: “WBDS District students' science Workshop” supported by Department of Higher Education, Science & Technology and Biotechnology, Government of West Bengal for middle school students (49) (Malda CC High School, Malda Town High School, Malda and Raina Swami Bholanandas Bidyatan, Burdwan) held at JB-Centre of Excellence, Kolkata.

Welcome address by Prof. Maitree Bhattacharyya, Director, JBNSTS.

Speakers:

- (1) Activity session at JBNSTS Laboratory by Dr. Smarajit Manna and Dr. Abhijit Kar, JBNSTS Kolkata.
- (2) Smt. Sharmistha Bhattacharya, Ananda Ashram Balika Vidyalaya, Kolkata.
- (3) Dr. Mrinal Mukherjee, Batanagar High School, Kolkata.
- (4) Shri Sabyasachi Mitra, Calcutta International School, Kolkata.
- (5) Dr. Arindam Bhattacharyya, Calcutta University, Kolkata.
- (6) Mr. Partha Pratim Roy, South Point High School, Kolkata.
- (7) Dr. Punarbasu Chaudhuri, Calcutta University, Kolkata.
- (8) Ms. Sampurna Bhattacharya, Kolkata.
- (9) Dr. Arati Mukherjee, Howrah Jogesh Chandra Girls' School, Howrah.

“Sky Watching”: at JBNSTS roof top, Kolkata – conducted by Indian Sky Watchers Association, Kolkata.

Participants of the Workshop visited at Chintamani Kar Park with Dr. Subir Dasgupta and Team.

19/02/ - 23/02/2018: “WBDS District students' science Workshop” supported by Department of Higher Education, Science & Technology and Biotechnology, Government of West Bengal for middle school (32) students (Suniti Bala Sadar Girls High School, Jalpaiguri and Govt. Girl's High School, Jalpaiguri.) held at JB-Centre of Excellence, Kolkata.

Welcome address by Prof. Maitree Bhattacharyya, Director, JBNSTS.

Speakers:

- (1) Mathematics session by Dr. Swati Sircar
- (2) Activity session at JBNSTS Laboratory by Dr. Smarajit Manna and Dr. Abhijit Kar, JBNSTS Kolkata.
- (3) Chemistry session by Dr. Arati Mukherjee, Howrah Jogesh Chandra Girls High School, Howrah
- (4) Lecture session by Dr. Gautam Basu, Bose Institute, Kolkata
- (5) Life Science session by Dr. Chaitali Mukherjee, Santoshpur Rishi Aurobindo Balika Vidyapith, Kolkata and Shri Arup Sengupta, Garfa, DNM High School, Kolkata.
- (6) Physical Science session by Dr. Mr. Partha Pratim Roy, South Point High School, Kolkata
- (7) Experiments in Solar Science
- (8) Lecture session by Dr. Deepanjali Majumdar
- (9) Art workshop with Shri Dipankar Karmakar



(10) Session on Women's Health by Smt. Sharmistha Bhattacharya, Ananda Ashram Balika Vidyalaya, Kolkata

(11) Lecture by Shri Siddhartha S Chattopadhyay, Bidhannagar Govt. High School, Kolkata

“Sky Watching”: at JBNSTS roof top, Kolkata – conducted by Indian Sky Watchers Association, Kolkata.

Participants of the Workshop visited at Chintamani Kar Park with Dr. Subir Dasgupta and Team.

20/02/ - 22/02/2018: “JBNSTS – NCSTC – DST Science Teachers' Training Program” supported by Department of Science & Technology, Government of India for middle and high school science teachers (117) held at Alipurduar College, Alipurduar.

Welcome address by Dr. Jyoti Bikash Nath, Principal / TIC, Alipurduar College, Alipurduar and Address by Guest of Honour by Shri Tapan Sinha, D.I. of Schools (S.E.), Alipurduar and Dr. Debkumar Mukherjee (VC), Coochbehar Panchanan Barma University and Dr. Abhijit Kar, Scientific Officer, JBNSTS, Kolkata.

Speakers:

- (1) Mathematics session by Dr. Amit K Chakraborty, NIT Durgapur.
- (2) Biology session by Dr. Jyotsna Das, Alipurduar College, Alipurduar.
- (3) Mathematics and Physics session by Dr. Arnab Chakraborty, ISI, Kolkata.
- (4) Biology Session by Dr. Sutapa Sanyal, Krishnagar Govt. College, Nadia.
- (5) Mathematics session by Dr. Apurba Narayan Das, Alipurduar College, Alipurduar.
- (6) Physical Science session by Dr. Arindam Rana, City College, Kolkata.
- (7) Biology session by Smt. Sharmistha Bhattacharya, Ananda Ashram Balika Vidyalaya, Kolkata.
- (8) Mathematical session by Dr. Santanu Raut, Mathabhanga College, Coochbehar.
- (9) Physical Science session by Dr. Subhash Bhtattacharyya, Jadavpur University, Kolkata and Dr. Abhijit Kar, JBNSTS, Kolkata.
- (10) Biology session by Dr. Saugata Ghosh, APC Roy Govt. College, Siliguri.
- (11) Physical Science session by Dr. Subhash Bhtattacharyya, Jadavpur University, Kolkata and Dr. Smarajit Manna, JBNSTS, Kolkata

24/02/ - 25/02/2018: “Orientation Workshop for JBNSTS Senior Scholarsh & Bigyani Kanya Medha Britti (105) Awardees – 2017 batch.

Welcome address by Prof. Maitree Bhattacharyya, Director, JBNSTS.

Speakers:

- (1) **“Why should I study Science?”** by Prof. Anuradha Lohia, Presidency University, Kolkata.
- (2) Motivational Lecture by Dr. D P Duari, M P Birla Institute of Fundamental Research, M P Birla Planetarium, Kolkata.
- (3) **“Some problems in Statistics, Computer Science and Cryptology”** by Prof. Bimal Kumar Roy, Indian Statistical Institute, Kolkata.
- (4) **“Gulliver's voyage to the scientific lands of Lilliputs and Giants”** by Dr. Raka Dasgupta Calcutta University, Kolkata.



- (5) ***“In search of a Hidden World”*** by Prof. Soumitra Sengupta, Indian Association for the Cultivation of Science, Kolkata.
- (6) ***“Harnessing the genome information in the benefit of society”*** by Dr. Sanghamitra Sengupta, Calcutta University, Kolkata.
- (7) Motivational Lecture by Dr. Sujoy Ghosh, Institute of Post Graduate Medical Education and Research, Kolkata.
- (8) ***“Capillary-driven fluid transport on paper-based microfluidic devices-the future of low-cost healthcare”*** by Prof. Ranjan Ganguly, Jadavpur University, Kolkata.
- (9) Motivational Lecture by Dr. Sayam Sen Gupta, Indian Institute of Science Education and Research, Kolkata.

28/02/2018: “INSA-JBNSTS – A one day seminar on National Science day” held at JB-Centre of Excellence, Kolkata.

Speakers:

- (1) ***“Evolutions of Biology – Chromosome to Genomics”*** by Prof. Arun Lahiri Majumder, Bose Institute, Kolkata.
- (2) ***“The Voice of the Cosmos: Einstein and the Gravitational Wave”*** by Prof. Soumitra Sengupta, Indian Association for the Cultivation of Science, Kolkata.
- (3) Quiz Session : by Mr. Chirantan Roy and Mr. Souvik Sarkar.

March 2018

05/03/ - 09/03/2018: “WBDS District students' science Workshop” supported by Department of Higher Education, Science & Technology and Biotechnology, Government of West Bengal for middle school (39) students (Tarai Tarapada Adarsha Vidyalaya, Siliguri and Dinhata High School, Coochbehar) held at JB-Centre of Excellence, Kolkata.

Welcome address by Prof. Maitree Bhattacharyya, Director, JBNSTS.

Speakers:

- (1) Dr. Chaitali Mukherjee, Santoshpur Rishi Aurobindo Balika Vidyapith, Kolkata.
- (2) Shri Arup Sengupta, Garfa, DNM High School, Kolkata.
- (3) Dr. Arati Mukherjee, Howrah Jogesh Chandra Girls' School, Howrah.
- (4) Shri Sabyasachi Mitra, Calcutta International School, Kolkata.
- (5) Dr. Subhamoy Bhoumik, NEERI, Kolkata.
- (6) Dr. S. Manna, JBNSTS, Kolkata
- (7) Shri Siddhartha SChattopadhyay, Bidhannagar Govt. High School, Kolkata.
- (8) Dr. Partha Sarathi Majumdar, Guest Lecturer, R K M Belur Math, Howrah.
- (9) Shri Shekhar Banerjee, Consultants, Solar Technology, Kolkata.

Participants of the Workshop visited at Chintamani Kar Park with Dr. Subir Dasgupta and Team

06/03/ - 08/03/2018: “JBNSTS – WB– DST Science Teachers' Training Program” supported by Department of Science & Technology, Government of West Bengal for middle and high school science teachers (131) held at Maharaja Uday Chand Women's College, Burdwan.



Welcome address by Dr. Sukrit Ghosal, Principal Maharajadhiraj Uday Chand Women's College, Burdwan and Address by Prof. Maitree Bhattacharyya, Director, JBNSTS, Kolkata and Dr. Abhijit Kar, Scientific Officer, JBNSTS, Kolkata.

Speakers:

- (1) Dr. Pinaki Majumder, Maharajadhiraj Uday Chand Women's College, Burdwan.
- (2) Dr. Laxmi Narayan Mandal, formerly of Suri Vidyasagar College, Birbhum.
- (3) Dr. Sanat Manik, Burdwan Raj College, Burdwan.
- (4) Dr. Uttam Ghosh, Rajabajar Science College, Kolkata.
- (5) Dr. Sutapa Sanyal, Krishnagar College, Nadia.
- (6) Dr. Abhijit Kar, JBNSTS, Kolkata.
- (7) Dr. Partha Karmakar, West Bengal Board of Secondary Education, Kolkata.
- (8) Shri Samar Bagchi, formerly of Birla Industrial & Technological Museum, Kolkata.
- (9) Dr. Debabrata Mukherjee, Katwa Bharati Bhavan High School, Burdwan.
- (10) Shri Sandip Sen, National Academy of Science India, Kolkata chapter
- (11) Dr. Riddhi Majumder, St. Xavier's College, Kolkata.
- (12) Dr. Smarajit Manna, JBNSTS, Kolkata.

12/03/ - 16/03/2018: "WBDS District students' science Workshop" supported by Department of Higher Education, Science & Technology and Biotechnology, Government of West Bengal for middle school (47) students (Railway Higher Secondary School, Alipurduar, Bairatiguri High School, Dhupguri, Jalpaiguri, Mathabhanga High School, Coochbehar) held at JB-Centre of Excellence, Kolkata.

Welcome address by Prof. Maitree Bhattacharyya, Director, JBNSTS.

Speakers:

- (1) Activity session at JBNSTS Laboratory by Dr. A Kar & Dr. S Manna, JBNSTS, Kolkata.
- (2) Dr. Subhankar Ghosh, St. Xavier's College, Kolkata.
- (3) Dr. Sharmistha Bhattacharya, Ananda Ashram Balika Vidyalaya, Kolkata.
- (4) Dr. Mrinal Mukherjee, Batanagar High School, Kolkata.
- (5) Dr. Arindam Bhattacharyya, Calcutta University, Kolkata.
- (6) Dr. Arati Mukhopadhyay, Howrah Jogesh Chandra Girls' School, Howrah.
- (7) Dr. Abrajyoti Ghosh, Bose Institute.
- (8) Shri Sabyasachi Mitra, Calcutta International School, Kolkata.
- (9) Subhadeep Bose, Ekalavya Model Residential School, Jhargram.

Participants of the Workshop visited at Chintamani Kar Park with Dr. Subir Dasgupta and Team

17/03/ - 19/03/2018: Talent Enrichment Program (Astronomy Camp and Training on Sky Observation) at Kaikhali, South 24 Parganas for (24) JB Senior Scholars.

Initial briefing and objective of program by Dr. S. Manna, JBNSTS, Kolkata.

**Lecture & Demonstration session:**

Topic: (1) Introduction to Telescopes and How to Handle Them.

- (1) Observable objects.
- (2) Identifying visible Constellations and using The Telescope to observe bright objects etc.
- (3) Introduction to the Virtual Sky.
- (4) Naked eye observation, Introduction to Star Charts, formalities to be observed etc.
- (5) Introduction to the constellations.
- (6) Recapitulation and further introduction to more constellations and DSOs, locating them using charts etc.
- (7) Practicing of using Telescopes.

The lecture and demonstration session were conducted by the following members of Sky Watchers Association, Kolkata.

(1) Shri Dipankar Dey, (2) Shri Anirban Dey, (3) Shri Ankit Bhowmik (4) Mr. Biplab Dey

Tour to Sunderban in a launch boat.

26/03/ - 30/03/2018: DST – Inspire Internship Science Camp in association with JBNSTS entitled 'Learning Science' for class XI science students (135) of West Bengal, held at JB-Centre of Excellence, Kolkata

Welcome Address was delivered by Prof. Maitree Bhattacharyya, Director, JBNSTS, Kolkata

Speakers & Lectures:

- (1) **“Motivational Lecture”** by Prof. Partha P Majumder, National Institute of Biomedical Genetics, Nadia.
- (2) **“Computational Science as integrating subject: Molecules to Materials”** by Prof. Sourav Pal, Indian Institute of Science Education and Research, Nadia.
- (3) **“Let's improve your research aptitude – do some active research”** by Dr. S Manna, Dr. A Kar and Dr. A Pramanik, JBNSTS.
- (4) **“Guest stars of our Universe”** by Dr. Pratik Majumdar, Saha Institute of Nuclear Physics, Kolkata.
- (5) Write-up Session: On some issues of National Importance by Dr. Ishani Deb, University of Calcutta, Kolkata and Dr. Rajat Banerjee, University of Calcutta, Kolkata.
- (6) **“Why is it important to not succeed always”** by Dr. Paromita Roy, JBNSTS, Kolkata.
- (7) **“The Story of Calculus”** by Dr. Parthasarathi Mukhopadhyay, R K Mission Residential College, Narendrapur, Kolkata.
- (8) **“Motivational Lecture”** by Dr. Abhishek Dey, Indian Association for the Cultivation of Science, Kolkata.
- (9) **“The Compact Moon solenoid experiment at the Large Hadron Collider”** by Dr. Suchandra Dutta, Saha Institute of Nuclear Physics, Kolkata.
- (10) **“Scientific detection of honesty in Tea”** by Dr. Samir Kumar Pal, S N Bose National Centre for Basic Sciences, Kolkata.



- (11) **“Astronomy and Astrophysics – Concept and Challenges”** by Dr. D P Duari, M P Birla Institute of Fundamental Research, M P Birla Planetarium, Kolkata.
- (12) **“Motivational Lecture”** by Dr. Anindita Ukil, University of Calcutta, Kolkata.
- (13) **“Puzzles and Magic with Mathematics”** by Dr. Arnab Chakraborty, Indian Statistical Institute, Kolkata.

“Project Presentation session for Participating students: Judgeswere: Dr. Sanatan Chattopadhyay, University of Calcutta, Kolkata, Dr. Debajyoti Ghoshal, Jadavpur University, Kolkata and Dr. Gopal Chakraborty Calcutta University, Kolkata.

Participants of the Science Camp students visited to Centre for Research in Nanoscience & Nanotechnology (CRNN), University of Calcutta, Salt Lake Campus, Kolkata

May 2018

07/05 – 08/05/2018: “Professional Development program for Science Teachers as part of Royal Society of Chemistry Yusuf Hamid Inspirational Chemistry Program” jointly organized by Jagadis Bose National Science Talent Search and Royal Society of Chemistry.

Welcome Address was delivered by Prof. Maitree Bhattacharyya, Director, JBNSTS, Kolkata.

Speakers :

- (1) Ms. Jaya P Swaminathan, Royal Society of Chemistry, Bangalore.
- (2) Ms. Alice Saji Philip, Royal Society of Chemistry, Bangalore.

June 2018

05/06 – 09/06/2018: “Nurturing workshop for JBNSTS Junior Scholars of batch 2017” held at IISER, Kolkata, organized by Jagadis Bose National Science Talent Search, Kolkata.

Inaugural lecture by Prof. Sourav Pal, Director, IISER, Kolkata and Prof. Maitree Bhattacharyya, Director, JBNSTS, Kolkata.

Speakers:

- (1) Prof. Soumitra Sengupta, Indian Association for the Cultivation of Science, Kolkata.
- (2) Dr. Paromita Roy, JBNSTS. Kolkata.
- (3) Prof. Subhajit Bandyopadhyay, IISER, Kolkata.
- (4) Prof. C M Reddy, IISER, Kolkata.
- (5) Prof. Tapas Sengupta, IISER, Kolkata.
- (6) Prof. Supriyo Mitra, IISER, Kolkata.
- (7) Dr. Somnath Basu, IISER, Kolkata.
- (8) Prof. Bimal Kumar Roy, Indian Statistical Institute, Kolkata.
- (9) Prof. Soumitro Banerjee, IISER, Kolkata.
- (10) Prof. Sanjio Zade, IISER, Kolkata.
- (11) Prof. Dhruvayoti Chattopadhyay, Amity University, Kolkata.



12/06 – 16/06/2018: “Nurturing workshop for JBNSTS Junior Scholars of batch 2016” held at JB-Centre of Excellence Kolkata.

Inaugural lecture by Prof. Maitree Bhattacharyya, Director, JBNSTS, Kolkata.

Speakers:

- (1) Dr. Dipak Ghosh, Sir CV Raman Centre for Physics and Music, Jadavpur University, Kolkata.
- (2) Dr. Jayanta Chatterjee, Indian Institute of Science, Bangalore.
- (3) Dr. Ravikant Vadlamani, IIT, Kharagpur.
- (4) Dr. Ranjan Ganguly, Jadavpur University, Kolkata
- (5) Dr. Soumitra Sengupta, Indian Association for the Cultivation of Science, Kolkata.
- (6) Dr. Paromita Roy, JBNSTS, Kolkata.
- (7) Dr. Arnab Chakraborty, Indian Statistical Institute, Kolkata.
- (8) Dr. Chandrabhas Narayana, Jawaharlal Nehru Centre for Scientific Research, Bangalore.
- (9) Dr. Santanu Mukherjee, Indian Institute of Science, Bangalore.
- (10) Dr. Maitreyee Bhattacharyya, Calcutta Medical College, Kolkata.
- (11) Dr. Anupam Basu, National Institute of Technology, Durgapur.
- (12) Dr. Raka Dasgupta, University of Calcutta, Kolkata.
- (13) Dr. Subhajit Bandopadhyay, IISER, Kolkata.
- (14) Dr. Koushik Dutta, Saha Institute of Nuclear Physics, Kolkata.
- (15) Dr. Parthasarathi Mukhopadhyay, R K Mission Residential College, Narendrapur.
- (16) Dr. Partha Pratim Majumder, National Institute of Biomedical Genomics, Kalyani, Nadia

26/06/ - 29/06/2018: “WBDS District students' science Workshop” supported by Department of Higher Education, Science & Technology and Biotechnology, Government of West Bengal for middle school (51) students (Muragachha High School, Nadia, Purulia Zilla School, Purulia and Shibdas Central Girls' High School, Bankura) held at JB-Centre of Excellence, Kolkata.

Welcome address by Prof. Maitree Bhattacharyya, Director, JBNSTS.

Speakers:

- (1) Smt. Sharmistha Bhattacharya, Ananda Ashram Balika Vidyalaya, Kolkata.
- (2) Shri Arup Sengupta, Garfa, DNM High School, Kolkata.
- (3) Shri Subir Bhattacharya, Dum Dum Kishore Bharati School, Kolkata.
- (4) Shri Parthapratim Roy, South Point High School, Kolkata.
- (5) Dr. Arati Mukhopadhyay, Howrah Jogesh Chandra Girls' School, Howrah.
- (6) Prof. Shyamal Chakrabarti, Calcutta University, Kolkata.
- (7) Shri Milan Chandra Gain, Uttar Rabindra Nagar Vivekananda High School, Dum Dum Cant., Kolkata.
- (8) Shri Dipankar Karmakar, Painter, Kolkata.



- (9) Ms. Smita Nandi, Painter, Kolkata.
 (10) Shri Pintu Kr. Sinha, Katwa Kasiram Das Institution, Burdwan.

Participants of the workshop visited 'Innovation Hub' at BITM, Kolkata.

July 2018

03/07/ - 04/07/2018: Awareness Program of JTST & STST for High School and undergraduate science students at Contail and Egra, Purba Mednipur by Shri Dipankar Sarkar and Shri Puskar Naskar..

03/07/ - 05/07/2018: Awareness Program of JTST & STST for High School and undergraduate science students at Kolaghat, Tamluk and Haldia, Purba Mednipur by Dr. Pijush Basak and Dr. Arnab Pramanik

04/07/ - 05/07/2018: Awareness Program of JTST & STST for High School and undergraduate science students at Kolkata by Ms. Paromita Majumder and Ms. Rituparna De, JBNSTS.

05/07/ - 06/07/2018: Awareness Program of JTST & STST for High School and undergraduate science students at Malda by Shri Basudeb Dutta and Shri Ranjit Mallick, JBNSTS.

09/07/ - 10/07/2018: Awareness Program of JTST & STST for High School and undergraduate science students at Jhargram by Ms. Rituparna De, JBNSTS.

10/07/ - 13/07/2018: "WBDS District students' science Workshop" supported by Department of Higher Education, Science & Technology and Biotechnology, Government of West Bengal for middle school (55) students (Fulberia High School, Bankura, Bansidi High School, Bankura and Ranaghat Bharati High School, Nadia) held at JB-Centre of Excellence, Kolkata.

Inaugural Lecture by Prof. Maitree Bhattacharyya, Director, JBNSTS, and Dr. Paromita Roy, Deputy Director, JBNSTS.

Speakers:

- (1) Dr. Chaitali Mukherjee, Santoshpur Rishi Aurobindo Balika Vidyapith, Kolkata.
- (2) Smt. Sharmistha Bhattacharya, Ananda Ashram Balika Vidyalaya, Kolkata.
- (3) Dr Pijush Basak, JBNSTS, Kolkata.
- (4) Shri Milan Chandra Gain, Uttar Rabindra Nagar Vivekananda High School, Dum Dum Cant., Kolkata.
- (5) Smt. Anupama Sengupta, Science Communicators Forum, Kolkata.
- (6) Dr. Arati Mukhopadhyay, Howrah Jogesh Chandra Girls' School, Howrah.
- (7) Shri Biswarup Mitra, Kumar Ashutosh Institution Main (Boys'), Kolkata.
- (8) Shri Subhadeep Bose, Recitation, Ekalavya Model Residential School, Jhargram.
- (9) Shri Pintu Kr. Sinha, Katwa Kasiram Das Institution, Burdwan.
- (10) Shri Saptarshi Mondal, Tangrakhali High School, South 24 Parganas.

Participants of the workshop visited 'Innovation Hub' at BITM, Kolkata.



12/07/2018: Awareness Program of JTST & STST for High School and undergraduate science students at Naihati, North 24 Parganas by Shri Basudeb Dutta and Shri Ranjit Mallick, JBNSTS.

17/07/2018: Awareness Program of JTST & STST for High School and undergraduate science students at Kharagpur, Paschim Mednipur by Rituparna De and Shri Sudip Das, JBNSTS.

17/07/ - 20/07/2018: “WBDS District students' science Workshop” supported by Department of Higher Education, Science & Technology and Biotechnology, Government of West Bengal for middle school (49) students (Lahdurka High School, Purulia, Bamnia Vivekananda Vidyapith, Purulia and Bidhan Chandra Memorial Government Girls' High School, Nadia) held at JB-Centre of Excellence, Kolkata.

Inaugural Lecture by Prof. Maitree Bhattacharyya, Director, JBNSTS.

18/07/ - 20/07/2018: Awareness Program of JTST & STST for High School and undergraduate science students at Coochbehar by Shri Dipankar Sarkar, JBNSTS.

Speakers:

- (1) Dr. Chaitali Mukherjee, Santoshpur Rishi Aurobindo Balika Vidyapith, Kolkata.
- (2) Smt. Sharmistha Bhattacharya, Ananda Ashram Balika Vidyalaya, Kolkata.
- (3) Shri Pintu Kr. Sinha, Katwa Kasiram Das Institution, Burdwan.
- (4) Shri Saptarshi Mondal, Tangrakhali High School, South 24Parganas.
- (5) Shri Siddhartha SChattopadhyay, Bidhannagar Govt. High School, Kolkata.
- (6) Dr. Arati Mukhopadhyay, Howrah Jogesh Chandra Girls' School, Howrah.
- (7) Dr. Arnab Pramanik, JBNSTS.
- (8) Shri Subhadeep Bose, Recitation, Ekalavya Model Residential School, Jhargram.
- (9) Shri Milan Chandra Gain, Uttar Rabindra Nagar Vivekananda High School, Dum Dum Cant., Kolkata.

Participants of the workshop visited 'Innovation Hub' at BITM, Kolkata.

19/07/2018: “Science Orientation Program” held at Nazrul Mancha, Ranaghat organized by Jagadis Bose National Science Talent Search, Kolkata.

Inaugural Lecture by SDO, SDPO, Zila Sabhadhipati and Chairman St. John Ambulance Soc, Nadia.

19/07/2018: Awareness Program of JTST for High School science students at Alipurduar by Shri Dipankar Sarkar JBNSTS.

Speakers:

- (1) Dr. Samir Kumar Pal, SN Bose National Centre for Basic Sciences, Kolkata.
- (2) Dr. Ananda Dasgupta, IISER, Kolkata.
- (3) Dr. Abhijit Kar, JBNSTS, Kolkata.

23/07/2018: Awareness Program of STST for undergraduate science students at Belur Math Ramakrishna Mission Vidyamandira, Howrah and Ramakrishna Mission Residential College, Narendrapur, South 24Parganas by Shri Dipankar Sarkar, JBNSTS.

24/07/2018: Awareness Program of JTST & STST for High School and undergraduate science students at Chinsurah, Hooghly by Shri Basudeb Dutta, JBNSTS.



25/07/ - 26/07/2018: Awareness Program of JTST & STST for High School and undergraduate science students at Baluraghat, Dakshin Dinajpur by Shri Dipankar Sarkar, JBNSTS.

24/07/ - 27/07/2018: "WBDS District students' science Workshop" supported by Department of Higher Education, Science & Technology and Biotechnology, Government of West Bengal for middle school (54) students (Bankura Christian Collegiate School, Bankura, Kalyani University Experimental High School, Nadia and Goas High School, Nadia) held at JB-Centre of Excellence, Kolkata.

Inaugural Lecture by Prof. Maitree Bhattacharyya, Director, JBNSTS.

Speakers:

- (1) Shri Siddhartha S Chattopadhyay, Bidhannagar Govt. High School, Kolkata.
- (2) Dr. Arati Mukhopadhyay, Howrah Jogesh Chandra Girls' School, Howrah.
- (3) Shri Parthapratim Roy, South Point High School, Kolkata.
- (4) Shri Milan Chandra Gain, Uttar Rabindra Nagar Vivekananda High School, Dum Dum Cant., Kolkata.
- (5) Prof. Shyamal Chakrabarti, Calcutta University, Kolkata.
- (6) Dr. Chaitali Mukherjee, Santoshpur Rishi Aurobindo Balika Vidyapith, Kolkata.
- (7) Smt. Sharmistha Bhattacharya, Ananda Ashram Balika Vidyalaya, Kolkata.
- (8) Dr. Pijush Basak, JBNSTS.
- (9) Shri Pintu Kr. Sinha, Katwa Kasiram Das Institution, Burdwan.
- (10) Shri Saptarshi Mondal, Tangrakhali High School, South 24 Parganas.

Participants of the workshop visited 'Innovation Hub' at BITM, Kolkata.

August 2018

31/07/ - 03/08/2018: "WBDS District students' science Workshop" supported by Department of Higher Education, Science & Technology and Biotechnology, Government of West Bengal for middle school (52) students (Laulara R C Academy, Purulia, Chittaranjan High School, Purulia and Bankati High School, Bankura) held at JB-Centre of Excellence, Kolkata.

Inaugural Lecture by Prof. Maitree Bhattacharyya, Director, and Dr. Paromita Roy, Dy Director, JBNSTS.

Speakers:

- (1) Dr. Chaitali Mukherjee, Santoshpur Rishi Aurobindo Balika Vidyapith, Kolkata.
- (2) Shri. Arup Sengupta, Garfa DNM High School, Kolkata.
- (3) Dr. Gautam Basu, Bose Institute, Kolkata.
- (4) Dr. Arati Mukhopadhyay, Howrah Jogesh Chandra Girls' School, Howrah.
- (5) Shri Biswarup Mitra, Kumar Ashutosh Institution Main (Boys'), Kolkata.
- (6) Mr. Pratyay Raha, Musician, Kolkata.
- (7) Shri Milan Chandra Gain, Uttar Rabindra Nagar Vivekananda High School, Dum Dum Cant., Kolkata.



Participants of the workshop visited 'Innovation Hub' at BITM, Kolkata.

19/08/2018: 59th Senior Talent Search Test: 2777 undergraduate science students applied for STST examination and 1875 students appeared for the test from West Bengal at the following 33 examination centres:

(1) A B N Seal College, Coochbehar, (2) A P C Roy Government College, Siliguri, (3) Alipurduar College, Alipurduar (4) Aramabag Girls' College, Hooghly, (5) Bankura Sammilani College, Bankura, (6) Balurghat College, Balurghat, Dakshin Dinajpur, (7) Barasat Government College, North 24 Parganas, (8) Barrackpore Rastraguru Surendranath College, North 24 Parganas, (9) Basirhat College, Basirhat, North 24 Parganas (10) Burdwan Raj College, Burdwan, (11) Chakdaha College, Nadia (12) Dum Dum Motijheel College, North 24 Parganas, (13) Ekalavya Model Residential School, Jhargram, (14) Fakir Chand College, Diamond Harbour, South 24 Parganas (15) Hooghly Mohasin College, Hooghly, (16) Indian Institute of Technology, Kharagpur, (17) J K College, Purulia, (18) Jadavpur University, Kolkata, (19) Krishnath College, Behrampur, (20) Krishnanagar Collegiate School, Nadia, (21) Malda College, Malda, (22) Midnapore College, Paschim Midnapore, (23) Tamralipta Maha Vidyalaya, Midnapore, (24) National Institute of Technology, Durgapur, (25) Narasinha Dutta College, Howrah, (26) Prabhat Kumar College, Contai, Purba Midnapore, (27) Presidency University, Kolkata, (28) RKM Residential College, Narendrapur, South 24 Parganas, (29) RKM Vidyamandira, Belur Math, Howrah, (30) Raiganj Surendranath Mahavidyalaya, Raiganj, Uttar Dinajpur, (31) Sundarban Janokalyan Sangha High School, Sagar, South 24 Parganas, (32) Sundarban Mahavidyalaya, Kakdwip, South 24 Parganas, (33) Visva Bharati, Shantiniketan, Birbhum

19/08/2018 : 4th Junior Talent Search Test: 11194 Science Students (Class XI) applied for JTST examination and 9839 Students appeared for the test from West Bengal at the following 33 centres.

(1) A B N Seal College, Coochbehar, (2) A P C Roy Government College, Siliguri, (3) Alipurduar College, Alipurduar, (4) Aramabag Girls' College, Hooghly, (5) Bankura Sammilani College, Bankura, (6) Balurghat College, Balurghat, Dakshin Dinajpur, (7) Barasat Government College, North 24 Parganas, (8) Barrackpore Rastraguru Surendranath College, North 24 Parganas, (9) Basirhat College, Basirhat, North 24 Parganas (10) Burdwan Raj College, Burdwan, (11) Chakdaha College, Nadia (12) Dum Dum Motijheel College, North 24 Parganas, (13) Ekalavya Model Residential School, Jhargram, (14) Fakir Chand College, Diamond Harbour, South 24 Parganas (15) Hooghly Mohasin College, Hooghly, (16) Indian Institute of Technology, Kharagpur, (17) J K College, Purulia, (18) Jadavpur University, Kolkata, (19) Krishnath College, Behrampur, (20) Krishnanagar Collegiate School, Nadia, (21) Malda College, Malda, (22) Midnapore College, Paschim Midnapore, (23) Tamralipta Maha Vidyalaya, Midnapore, (24) National Institute of Technology, Durgapur, (25) Narasinha Dutta College, Howrah, (26) Prabhat Kumar College, Contai, Purba Midnapore, (27) Presidency University, Kolkata, (28) RKM Residential College, Narendrapur, South 24 Parganas, (29) RKM Vidyamandira, Belur Math, Howrah, (30) Raiganj Surendranath Mahavidyalaya, Raiganj, Uttar Dinajpur, (31) Sundarban Janokalyan Sangha High School, Sagar, South 24 Parganas, (32) Sundarban Mahavidyalaya, Kakdwip, South 24 Parganas, (33) Visva Bharati, Shantiniketan, Birbhum.



September 2018

11/09/2018 Biotechnology workshop for High School Students held at JB-Centre of Excellence, Kolkata.

Inaugural Lecture by Prof. Maitree Bhattacharyya, Director, JBNSTS.

Speakers:

- (1) Dr. Sanghamitra Sengupta, University of Calcutta, Kolkata.
- (2) Laboratory Session by Dr. Arnab Pramanik, Dr. Pijush Basak, Ms. Riturparna De, Dr. Sohan Sengupta, Shri Puskar Naskar and Shri Sudip Das, JBNSTS.

13/09/2018 Biotechnology workshop for High School Students held at JB-Centre of Excellence, Kolkata.

Inaugural Lecture by Prof. Maitree Bhattacharyya, Director, JBNSTS.

Speakers:

- (1) Dr. Abhrajyoti Ghosh, Bose Institute, Kolkata.
- (2) Laboratory Session by Dr. Arnab Pramanik, Dr. Pijush Basak, Ms. Riturparna De, Dr. Sohan Sengupta, Shri Puskar Naskar and Shri Sudip Das, JBNSTS.

15/09 – 16/09/2018: Senior Talent Search Test final Interview (2nd Phase): For short listed (311) students of West Bengal held at JB - Centre of Excellence, Kolkata.

18/09/ - 22/09/2018: DST – Inspire Internship Science Camp in association with JBNSTS entitled 'Learning Science' for class XI science students (140) of West Bengal, held at JB-Centre of Excellence, Kolkata

Welcome Address was delivered by Prof. Maitree Bhattacharyya, Director, JBNSTS, Kolkata.

Speakers & Lectures:

- (1) **"Some exposure to statistics & computer science"** by Prof. Bimal K Roy, Indian Statistical Institute, Kolkata.
- (2) **"The enigma of mass"** by Prof. Amitava Raychaudhuri, University of Calcutta, Kolkata.
- (3) **"Write up session: Issues of National Importance"** by Mr. Dipankar Sarkar, JBNSTS, Kolkata.
- (4) **"Lecture on Physics"** by Prof. Sibaji Raha Bose Institute, Kolkata.
- (5) **"Chemistry: Challenges, prospects and scopes"** by Dr. Subhajit Bandypadhyay, IISER, Kolkata.
- (6) **Let us solve some real life problem – A hands on session to develop laboratory skill:** by Dr. Abhijit Kar, Dr. Smarajit Manna, Dr. Arnab Pramanik, Dr. Pijush Basak, JBNSTS and Dr. Soumalee Basu, University of Calcutta, Kolkata.
- (7) **"Innovations for circular economy"** by Dr. Anamitra Anurag Danda, IMT, Gaziabad.
- (8) **"How the Cell Talks To its Neighbors?"** by Prof. Suvendra Nath Bhattacharyya, Indian Institute of Chemical Biology, Kolkata.
- (9) **"Discovery of India"** by Dr. Tilak Ranjan Bera, Ex-Associate Yale University, USA.
- (10) **"The student scientist: What works and what doesn't"** by Dr. Paromita Roy, JBNSTS, Kolkata.



- (11) ***“In Search of A Hidden World”*** by Prof. Soumitra Sen Gupta, Indian Association for the Cultivation of Science, Kolkata.
- (12) ***“Evaluation of Technical Write-Up”*** by Dr. Anindita Unil, University of Calcutta, Kolkata and
- (13) Dr. Rajat Banerjee, by University of Calcutta, Kolkata.
- (14) ***“Science & Society”*** by Prof. Samir Kumar Pal, S N Bose National Centre for Basic Sciences, Kolkata.
- (15) ***“Which way the train will go?”*** by Dr. Koushik Dutta, Saha Institute of Nuclear Physics, Kolkata.
- (16) ***Lecture on Chemistry*** by Dr. Sayam Sen Gupta, IISER, Kolkata
- (17) ***“Shape of the earth and the method of least squares”*** by Prof. Probal Chaudhuri, Indian Statistical Institute, Kolkata.
- (18) ***“The art and science of communication”*** by Prof. Raju Raman, Guest faculty, Presidency University, Jadavpur University and St. Xavier's College, Kolkata.
- (19) ***“Laser and its applications”*** by Prof. Samita Basu, Saha Institute of Nuclear Physics, Kolkata.
- (20) ***“Astronomy & Astrophysics, concepts & Challenges”*** by Dr. D P Duari, M P Birla Institute of Fundamental Research, M P Birla Planetarium, Kolkata.
- (21) ***Laboratory session: Data analysis and presentation*** by Dr. Sanatan Chattopadhyay, University of Calcutta, Kolkata, Dr. Debajyoti Ghosal, Jadavpur University, Kolkata and Dr. Sanghamitra Sengupta, University of Calcutta, Kolkata.

25/09/2018 Biotechnology workshop for High School Students held at JB-Centre of Excellence, Kolkata.

Inaugural Lecture by Prof. Maitree Bhattacharyya, Director, JBNSTS.

Speakers:

- (1) Dr. Samudra Prasad Banik, Moulana Azad College, Kolkata.
- (2) Laboratory Session by Dr. Arnab Pramanik, Dr. Pijush Basak, Ms. Riturparna De, Dr. Sohan Sengupta, Shri Puskar Naskar and Shri Sudip Das, JBNSTS.

27/09/2018 Biotechnology workshop for High School Students held at JB-Centre of Excellence, Kolkata.

Inaugural Lecture by Prof. Maitree Bhattacharyya, Director, JBNSTS.

Speakers:

- (1) Dr. Abhrajyoti Ghosh, Bose Institute.
- (2) Laboratory Session by Dr. Arnab Pramanik, Dr. Pijush Basak, Ms. Riturparna De, Dr. Sohan Sengupta, Shri Puskar Naskar and Shri Sudip Das, JBNSTS.

28/09 – 30/09/2018: Scientific Creativity Test (3rd and final Phase): For short listed (1132) undergraduate science students of West Bengal for the award of Senior JBNSTS Scholarship, held at JB - Centre of Excellence, Kolkata.

23/11 – 25/11/2018: Junior Talent Search Test final Interview (2nd Phase): For short listed (407) students of West Bengal to be held at JB - Centre of Excellence, Kolkata.



Senior Scholars

- **Smt. Adrika Raybarman**, JBNSTS scholar of batch 2012, is currently working as Ph. D student at Department of Biochemistry, University of Illinois, Urbana-Champaign, USA.
- **Shri Rajorshi Paul**, JBNSTS scholar of batch 2012, is currently pursuing Masters Degree University in Alberta, Canada.
- **Shri Soham Dan**, JBNSTS scholar of batch 2012, is currently pursuing PhD at University of Illinois Urbana Champaign at USA.
- **Shri Tathagata Basu**, JBNSTS scholar of batch 2012, is currently a PhD student at Department of Mathematical Sciences, Durham University, UK.
- **Shri Indrajit Pal**, JBNSTS scholar of batch 2013 published two research papers in 2016 (Current Computer-Aided Drug Design, Volume 12, Number 3, 2016 and, IEEE(EDS) Kolkata Chapter Sponsored 5th International Conference on Computing, Communication and Sensor Network (CCSN, 2016) which will be extended in Communication on Applied Electronics.
- **Shri. Bhubanjyoti Bhattacharya**, JBNSTS Scholar of batch 2001, appointed as a faculty of Physics at Lawrence Technological University in Michigan, USA.

Junior Scholars

- **Shri Rajatava Mukhopadhyay**, JBNSTS junior scholar of batch 2016, was selected to present a paper at the Mathematical Association of America's (MAA) MathFest, held in Chicago, IL, USA during July 26-29, 2017 (Under 18 years group).

JBNSTS Annual Award Ceremony 2017

On 16 December 2017, the 58th annual award ceremony of JBNSTS was held in Science City, Kolkata. Prof. Krishna N Ganesh, Director, IISER, Tirupati graced the chair of Chief Guest of the occasion. The scientific session comprised of lectures by Prof. Krishna N Ganesh, Director, IISER,



Tirupati and Mahan Maharaj (TIFR, Mumbai) respectively. Both of these sessions were followed by interaction with the scholars. The keynote address was made by Prof. Sanghamitra Bandyopadhyay, Director, Indian Statistical Institute who was also the guest of honour of the program. Prof. Amitava Raychaudhuri, (Sir Tarak Nath Palit Professor of Physics, Calcutta University & Chairman JBNSTS) rendered the presidential lecture. The distribution of certificates and scholarships to the awardees was done by Prof. Krishna N Ganesh, Prof. Sanghamitra Bandyopadhyay, Prof (Dr.) Dhruvajyoti Chattopadhyay, Prof. Mahan Maharaj, Prof. (Dr.) Amitava Raychaudhuri and Prof. (Dr.) Maitree Bhattacharyya, Director, JBNSTS.



Laptops were awarded to top ten boys and top ten girls of *Senior Talent Search*



Scholarship program to support their academic needs and further educational pursuits. The best school award went to Ramakrishna Mission Vidyalaya, Narendrapur in both Junior Scholarship and Senior Scholarship Programs 2017.

The special school award in the *Junior Talent Search Test 2017* was jointly conferred to Rahara Ramakrishna Mission Boys' Home High School (Khardah, North 24 Parganas) and Kolaghat Thermal Power Plant High School (East Midnapore) for outstanding performance of their students among all district schools. Dr Paromita Roy, Deputy Director, JBNSTS offered the vote of thanks which was followed by National Anthem that concluded the august ceremony.





Research Activities in JBNSTS

Research work of Prof Maitree Bhattacharyya

Prof Maitree Bhattacharyya joined as Director of Jagadis Bose National Science Talent Search in 2015. Prof Maitree Bhattacharyya, is a senior researcher in diverse field of modern biology. She is guiding seven research scholars registered in Calcutta University. Already fourteen students have been awarded PhD degree under her supervision.

Recent Publications

Medical Biochemistry

1. Rudradip Pattanayak, Atish Barua, Amlan Das, Tanima Chatterjee, Adrija Pathak, Pritha Choudhury, Srikanta Sen, Prosenjit Saha, **Maitree Bhattacharyya**. Porphyrins to restrict progression of pancreatic cancer by stabilizing KRAS G-quadruplex: In silico, in vitro and in vivo validation of anticancer strategy. *European Journal of Pharmaceutical Sciences*, 125, 39-53.
2. Kakali Ghoshal, Subhadip Chakraborty, Chirantan Das, Sanatan Chattopadhyay, Subhankar Chowdhury, **Maitree Bhattacharyya** Dielectric properties of plasma membrane: A signature for dyslipidemia in diabetes mellitus, *Archives of Biochemistry and Biophysics*, 2017; 635, 27-36, DOI:10.1016/j.abb.2017.10.002.
3. Sima Paul, Kakali Ghoshal, **Maitree Bhattacharyya**, Dilip Kumar Maiti Detection of HSO_3^- : A Rapid Colorimetric and Fluorimetric Selective Sensor for Detecting Biological SO_2 in Food and Living Cells., *ACS Omega*, 2017; 2, 8633 – 8639, DOI: 10.1021/acsomega.7b01218.
4. Sultan Tousif, Dhiraj Kumar Singh, Sitabja Mukherjee, Shaheer Ahmad, Rakesh Arya, Ranjan Nanda, Anand Ranganathan, **Maitree Bhattacharyya**, Luc Van Kaer, Santosh K. Kar, Gobardhan Das, Nanoparticle-Formulated Curcumin Prevents Posttherapeutic Disease Reactivation and Reinfection with Mycobacterium tuberculosis following Isoniazid Therapy, *Front. Immunol.*, 30 June 2017 | <https://doi.org/10.3389/fimmu.2017.00739>

Structural Biology

1. Subarna Dutta, Jitendra K. Das, Lakshmi Maganti, **Maitree Bhattacharyya**, Dhananjay Bhattacharyya, Sujoy Mukherjee & Kaushik Sengupta Skeletal Muscle Dystrophy mutant of lamin A alters the structure and dynamics of the Ig fold domain, *Scientific Reports*, volume 8, Article number: 13793 (2018)
2. Turban Kar, Pijush Basak, Rittik Kumar Ghosh, **Maitree Bhattacharyya**, Protective effects of curcumin against gamma ray induced conformational change of Human Serum Albumin, *International Journal of Biological Macromolecules*, 99 (2017) 600–607. <http://dx.doi.org/10.1016/j.ijbiomac.2017.02.105>
3. Turban Kar, Pijush Basak, Rittik Kumar Ghosh, **Maitree Bhattacharyya**, Analysis of Curcumin interaction with Human Serum Albumin using spectroscopic studies with molecular Simulation, *Front. Biol.* 2017, 12(3): 199–209). DOI 10.1007/s11515-017-1449-z



- Rudrdip Pattanayak, Pijush Basak, Srikanta Sen and **Maitree Bhattacharyya**, An insight to the binding of Ellagic acid with Human serum albumin using spectroscopic and isothermal calorimetry studies, *Biochemistry and Biophysics Reports* 2017, 10 88–93 <http://dx.doi.org/10.1016/j.bbrep.2017.03.001>

Microbial Ecology

- Roy D, Pramanik A, Banerjee S, Ghosh A, Chattopadhyay D, **Bhattacharyya M** (2018) Spatio-temporal variability and source identification for metal contamination in the river sediment of Indian Sundarbans, a world heritage site. *Environmental Science and Pollution Research*, 25, 31326–31345.
- Sudip Nag, Arnab Pramanik, Dhruvajyoti Chattopadhyay, **Maitree Bhattacharyya**, Green-fabrication of gold nanomaterials using *Staphylococcus warneri* from Sundarbans estuary: An effective recyclable nano-catalyst for degrading nitro-aromatic pollutants, *Environmental Science and Pollution Research*, DOI: 10.1007/s11356-017-0617-7
- Arghya Mukherjee, Bobby Chettri, James Langpoklakpam, Pijush Basak, Aravind Prasad, Ashis Mukherjee, **Maitree Bhattacharyya**, Arvind Singh, Dhruvajyoti Chattopadhyay, Bioinformatic Approaches Including Predictive Metagenomic Profiling Reveal Characteristics of Bacterial Response to Petroleum Hydrocarbon Contamination in Diverse Environments, *Scientific Reports*, | 7: 1108 | DOI:10.1038/s41598-017-01126-3.

Research work of Dr Paromita Roy

Dr. Paromita Roy, Deputy Director, JBNSTS, has been a researcher in the area of gifted minds since last five years. She has been contributing to book chapters international volume on gifted Education, is involved with three cross nation studies with Europe and USA on perception of students and teachers on giftedness and has been invited to several national and international forums to present her work, conduct workshops and teach students. In the year 2017 she was invited as a keynote speaker at the National Seminar on Inclusive Pedagogy at Delhi University (Feb 23, 2017), invited to visit the Center for Talented Youth, Ireland based in Dublin in (March 1-6, 2017) and invited as a judge and mentor of the Asia Pacific Forum of Science Talented involving 19 countries and held in National Taiwan Norman University, Taipei, Taiwan (July 11-15, 2017). She spoke on “Role of Teachers in the Education for the Gifted and Talented”, at the Teacher Refresher Course on Recent trends in Life Science by the UGC Human Resource Development Centre (January 6, 2017).

Recent Publications:

- **Roy, P.** (2017). Gifted education in India. *Cogent Education*, 4(1), 1332815. doi:10.1080/2331186X.2017.1332815
- **Roy, P.** (2016). Creativity and science education for the gifted: Insights from Psychology. In K. S. Taber & M. Sumida (Eds.), *Perspectives on Science Education for the Gifted: Key issues and challenges*. Cambridge: Routledge ISBN 978-0-415-73740-1
- **Roy, P., Mondal, M., Bakuli, K. and Mishra, A.** (2016). *Education and Identification of Gifted Students of India*. Maulana Abul Kalam Institute of Asian Studies, Kolkata



Research work of Dr. Smarajit Manna

Dr. Smarajit Manna, Student Advisor, JBNSTS, has research interests to contribute in the field of Bioinformatics, Material Science and Cognitive Science.

Recent Publication

1. Improvisation of electrical properties of PVDF-HFP: use of novel metallic nanoparticles: Journal of Materials Science Materials in Electronics, October 2017, Volume 28, Issue 19, pp14798–14808.

Research work of Dr. Abhijit Kar

Dr. Abhijit Kar Currently working as Scientific Officer of Jagadis Bose National Science Talent Search is looking after different academic and research activities. His current research interest comprises of Application of Nanotechnology for Micro- Electronics, Nanostructured composites and energy devices, Photo voltaic, thin film and Nanomultilayer structure for advanced materials joining. Nano Bio-Materials. He has expertise on different materials characterization techniques. He is one of the first and pioneer research scientists working on lead free solder for electronics/microelectronics applications from India. Published about 40 research papers in SCI Journals and Conference proceedings; contributed in book chapter on **Electron Microscopy** (ISBN 978-953-51-0450-6) and edited book on Nanomaterials and devices and editor of the book **Nanoelectronics and Materials Development** (ISBN 978-953-51-4734-3). **“Lead Free Solders”** ISBN: 978-953-51-7030-3 (Expected to be published in March 2019).

Project Undergoing

1. Training of motivated teachers in innovative methods of science teaching to build scientific aptitude among school students of districts of West Bengal DST-NCSTC- Govt. of India as Principal Investigator
2. Understanding the mechanism of action of Homeopathic medicine at the molecular level in Nano Domains in-vivo and in-vitro systems; CCRH, Govt. Of India as Collaborative Partner with CIRE, Kolkata

Publication

1. Rainforest of the Sea- A biocomposite- A SE image of Hydroxyapatite-Collagen Composite, Monalisa Char, Abhijit Kar, Won 1st prize in Metallography Contest at 72nd Annual Technical Meeting of Indian Institute of Metals Under the aegis of Ministry of Steel, Govt. of India, 14th – 16th Nov, 2018, Kolkata
2. Monalisa Char, Amit K Chakraborty, Abhijit Kar, “Effect of Tin as interlayer on morphological and functional properties of lead free solder joint interface”. Invited for Oral presentation at NMD-ATM 2018, 14th – 16th Nov, 2018, Kolkata, Indian Institute of Metals, under the aegis of Ministry of Steel, Govt. of India and Tata Steel. (Best Paper Award, Springer)
3. Monalisa Char, Amit K Chakraborty, Abhijit Kar, Invited presentation at the Young Scientist Conference under flagship of India International Science Festival 2018, DST-Govt. of India, Lucknow, 5-8 October 2018



4. Monalisa Char, Abhijit Kar, Effect of multilayer thin film on interfacial growth at the solder joint interface-An application of nanotechnology in environment friendly electronic materials, Nanotechnology Letters Vol.2 No.1 April-2018
5. Monalisa Char, Amit K Chakraborty, Subhrangsu Aditya, Abhijit Kar, "Effect of thin film multilayer on the morphological and functional properties of lead free solder joint interface", Proceedings of 2nd International Conference on Emerging Materials: Characterization and Applications, 2017 at NIT Durgapur, West Bengal, 15-17 March 2017
6. Monalisa Char, Amit K Chakraborty, Subhrangsu Aditya, Smarajit Manna, Abhijit Kar, "Effect of transient liquid phase soldering technique on lead free solder joint interface for consumable electronic applications", Proceedings of 3rd One day symposium on Nanotechnology: From materials to medicines and Their Social Impact, at BITM Kolkata, Adamas University and W.B Academy of S&T on 25th March 2017
7. Abhijit Kar; Awareness of Tea to the Grass-roots Level in India" –An Invited Lecture at Half a day Brain Storming Meeting on Tea Research In India, SCBNCBS, Kolkata, August 2017.
8. An Invited talk with interactive Session on Orienting Young Mind to Science, Dr. Abhijit Kar, at SCBNCBS, Kolkata, 26 September, 2018

Scholar Guidance

- ## Supervising 1 PhD student working (Registered at NIT-Durgapur) on the nanostructured lead free materials development for microelectronics applications.

Research Publications of Dr. Pijush Basak

1. R. K. Ghosh, T. Kar. Dutta A. Pathak R. Rakshit R. Basak A. Das K. Waheeda **P. Basak**, Bhattacharyya. Aberration in the structural paradigm of lens protein crystallin by UV-C irradiation .Applied Biological Chemistry, 2018, Volume 61, Issue 3, pp 281–287.
2. Ahana Das, **Pijush Basak**, Rudradip Pattanayak, Turban Kar, Rajib Majumder, Debadrita Pal, Anindita Bhattacharya, Maitree Bhattacharyya, Samudra Prosad Banik, Trehalose induced structural modulation of Bovine Serum Albumin at ambient temperature, International Journal of Biological Macromolecules, 2017, doi.org/10.1016/j.ijbiomac.2017.07.074
3. Sudeshna Chowdhurya, Samudra Prosad Banika, Rajib Majumder, Shakuntala Ghorai, Swagata Pal, **Pijush Basak**, Suman Khowala, Prevention of protein aggregation by extracellular fungal sucrose of Termitomycesclypeatus. Turk J Biochem 2017. DOI 10.1515/tjb-2016-0297
4. Rittik Kumar Ghosh, Turban Kar, **Pijush Basak** and Maitree Bhattachayya*. Hydrophobic profiling of heated and unheated Leghemoglobin, Myoglobin, Cytochrome c and Hemoglobin proteins in differential pH conditions. International Journal of Scientific and Research Publications, 6(9), 2016.
5. Niloy Kundu, Rittik Kumar Ghosh, Turban Kar, Maitree Bhattacharyya, and **Pijush Basak**, Illustration of fluorescence quenching mechanism of heme proteins using stern volmer quenching system with determination of positioning of tryptophan residues. Journal of Global Biosciences , 2016, 5 : 4579-4584.



Project Undergoing

Metagenomics of Sundarbans estuarine ecosystem using deep Sequencing : A valuable tool for exploration of novel genes and bioactive compounds funded by DST-SERB as Principal Investigator.

Research Publications of Dr. Arnab Pramanik

1. Pramanik A, Sengupta S, Bhattacharyya M (2018) Microbial diversity and community analysis of the Sundarbans mangrove, a World Heritage Site In: Chapter 5 Microbial Diversity in the Genomic Era. Academic Press, Elsevier, ISBN: 978-0-12-814849-5
2. Roy D, Pramanik A, Banerjee S, Ghosh A, Chattopadhyay D, Bhattacharyya M (2018) Spatio-temporal variability and source identification for metal contamination in the river sediment of Indian Sundarbans, a world heritage site. Environmental Science and Pollution Research, 25, 31326-31345.

Research Publications of Dr. Sohan Sengupta

1. Sohan Sengupta, Arnab Pramanik, Pijush Basak, Maitree Bhattacharyya. Draft Genome Sequence of Bioactive Strain Streptomyces sp. SMS_SU21, Isolated from Soil Sediment of the Sundarbans Mangrove Ecosystem .DOI: 10.1128/genomeA.00614-18.

Your time is limited, so don't waste it living someone else's life. Don't be trapped by dogma - which is living with the results of other people's thinking. Don't let the noise of others' opinions drown out your own inner voice. And most important, have the courage to follow your heart and intuition.

Steve Jobs

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1 Armenian Holy Church of Nazareth	2,61,500.00	
2 MP Birla Smarak Kosh (South Point)	67,500.00	
3 Daulat Ram Mehndiratta Charitable Trust	27,000.00	3,56,000.00
B. LABORATORY FUND		
i) Donation - Corpus		
1 Prof. Mahan Maharaj	5,000.00	5,000.00
ii) Donation (General)		
1 Prof. Anuradha Lohia	2,500.00	2,500.00
C. SCHOLARS RESERVE FUND		
i) Donation - Corpus		
1 Shri. Biswadeep Nag	50,000.00	50,000.00

IF you Salute your work, You do not have to salute anybody. IF you pollute your work, You have to salute everybody.

Abdul Kalam



THE JBNSTS FUNDS AND ACCOUNTS



FINANCIAL REPORT

JBNSTS is happy to report that the year 2017-18 was a period of high growth for JBNSTS. During this year, a number of new academic initiatives have been launched for a wide array of students and also the science teachers of district and rural schools. Also, during this period, a higher amount of grant has been received in commensuration with increase in the activities. The major part of the grant came from the Department of Higher Education, Science & Technology and Biotechnology Department, Government of West Bengal. Apart from that, we received grant from Department of Science & Technology, Government of India for projects like “Teachers' Training Program”, “Science Camp” and research projects. This inflow of funds from multiple sources shows its high physical accountability of the expenditure on our part.

Apart from regular sanction of grant for maintenance, the Department of Higher Education, Science & Technology and Biotechnology Department, Government of West Bengal, in the year 2017-18, funded significant amounts infrastructural facilities like Smart class room, rooftop class rooms with dining hall, Creativity Corner etc. The grant from Department of Higher Education, Science & Technology and Biotechnology Department, Government of West Bengal for regular maintenance was also increased to meet enhanced Office & Program expenses.

The funding in West Bengal District Scheme helps to conduct programs in remote village schools.

The Department of Higher Education, (formerly The Department of Higher Education Science & Technology and Biotechnology Department) Government of West Bengal sanctioned funds for Junior Talent Search Test, Senior Talent Search Test and Bigyani Kanya Medha Britti which have great impact. 200 Scholarships for Junior Scholars have been fixed at Rs.1,000/- per month with a book grant of Rs.2,500/- per year. 50 scholarships for Senior Scholars of Rs.4,000/- per month with a book grant of Rs.5,000/- per year and 50 scholarships for Bigyani Kanya of Rs.2,000/- per month with a book grant of Rs.2,000/- per year.

The Department of Science and Technology, Government of India (DST-SEAT) also sanctioned their recurring grants for Science camp and other programs as stated above.

At a glance the amounts received from both government and non government sources are as follows:

A. Department of Higher education, Science & Technology and Biotechnology, Government of West Bengal

•	• For Maintenance	Rs. 1,69,48,632/-
•	• West Bengal District Scheme	Rs. 26,00,000/-
•	• Junior Scholarship	Rs. 1,10,14,500/-
•	• Senior Scholarship	Rs. 55,30,000/-
	• Bigyani Kannya Medha Britti	Rs. 21,50,000/-
	• Talent Enrichment Programme	Rs. 14,00,000/-

B. Department of Science & Technology, Government of India

•	• Science Camp	Rs. 8,71,000/-
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The audited accounts of the institution are reported in the following pages.



Pan and Associates
Chartered Accountants

4RA-3/2, Purbachal Housing Estate,
Phase-II, Salt Lake, Kolkata-700 097
Telephone : 2248-7310 (Office)
E-mail : spmd@vsnl.net

INDEPENDENT AUDITOR'S REPORT

To
The Members of the *Governing Body*,
Jagadis Bose National Science Talent Search

1. Report on the Financial Statements

1.1. We have audited the accompanying Standalone Financial Statements of **JAGADIS BOSE NATIONAL SCIENCE TALENT SEARCH**, ("the Society"), registered under Societies Registration Act, 1860, having its Office at 1300, Raj Danga Main Road, Kasba, Kolkata, West Bengal - 700 107, which comprise of the Balance Sheet as at 31st March, 2018 and the Income & Expenditure Account of the Society for the year then ended and a summary of Significant Accounting Policies and other explanatory information.

2. Management Responsibility for the Financial Statements

- 2.1. The Society's Management is responsible for the preparation of these Standalone Financial Statements that give a true and fair view of the financial position and financial performance of the Society in accordance with the generally accepted accounting principles (GAAP) in India, including the applicable Accounting Standards.
- 2.2. This responsibility also includes maintenance of adequate accounting records for safeguarding of the Society's assets and for preventing and detecting frauds and other irregularities; selection and application of appropriate implementation and maintenance of accounting policies; making judgments and estimates that are reasonable and prudent; and design, implementation and maintenance of adequate internal financial controls, that were operating effectively for ensuring the accuracy and completeness of the accounting records, relevant to the preparation and presentation of the Standalone Financial Statements that give a true and fair view and are free from material misstatement, whether due to fraud or error.
- 2.3. In preparing these Standalone Financial Statements, the Management is also responsible for assessing the Society's ability to continue as a going concern and using the going concern basis of accounting unless the Management either intends to liquidate the Society or to cease operations, or has no realistic alternative but to do so.
- 2.4. The Society's Management is also responsible for overseeing the Society's financial reporting process.



3. Auditor's Responsibility

- 3.1.** Our responsibility is to express an opinion on these Standalone Financial Statements based on our audit. We have conducted our audit in accordance with the Standards on Auditing issued by the Institute of Chartered Accountants of India. Those Standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the Standalone Financial Statements are free of material misstatement.
- 3.2.** An audit involves performing procedures to obtain audit evidence about the amounts and the disclosures in the Financial Statements. The procedures selected depend on the Auditor's judgement, including the assessment of the risks of material misstatement of the Financial Statements, whether due to fraud or error. In making those risk assessments, the Auditor considers internal financial control relevant to the Society's preparation of the Standalone Financial Statements that give a true and fair view in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on whether the Society has in place an adequate internal financial controls system over financial reporting and the operating effectiveness of such controls. An audit also includes evaluating the appropriateness of the accounting policies used and the reasonableness of the accounting estimates made by the Society's Management, as well as evaluating the overall presentation of the Standalone Financial Statements.
- 3.3.** We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our qualified audit opinion on the Standalone Financial Statements.

4. Basis for Qualified Opinion

- 4.1.** The reason behind non-provisioning of liabilities towards Gratuity payable to employees, albeit has been elaborated at sub-Note No. 10.2.1. in Clause - B of Schedule – 'N', yet the same is not in line with the relevant stipulations as specified under applicable Accounting Standard 15 by the Institute of Chartered Accountants of India.
- 4.2.** Non-charging of depreciation on Fixed Assets acquired under Special Reserve Fund, albeit a practice being followed by the Society over the years in pursuance of its declared policy [vide sub-Note No. 5.2 of Clause - B of Schedule – 'N'], yet is not in conformity with the accounting principles generally accepted in India and the requisite accounting effects have not been given to bring the book values of the relevant assets to their true written down values. Had the depreciation been charged at the applicable rates being followed by the Society, the balance of said Fund would have been reduced by an identical margin.
- 4.3.** Sub-Note No. 3.4. of Clause - C of Schedule - 'N' elucidates the accounting treatments in connection with disposal of several Project Assets, hitherto being charged off as part of the concerned Project Expenditures are by and large not being reflected in the Project Capital Assets Fund. Thus, in spite of being in the nature of capital expenditures, the relevant costs of procurements of these assets have been considered as revenue expenditures over the years due to their compulsory utilization for the execution of the concerned Projects. We understand that,



even after the completion of the relevant Project programmes, the Society stands as the custodian of those non-performing and obsolete assets, as their ownership lies with the respective Grantor Authorities.

Accordingly, the resultant accretion of Rs. 34,700/=, caused due to the disposal of these non-performing "Assets" pertaining to concluded old Projects, in the Project Capital Assets Fund placed under Schedule - 'A-1', [Sub-Schedule to Schedule - 'A'], virtually representing the corresponding sale proceeds thereof, is not in conformity with the Indian GAAP.

5. Opinion

In our opinion and to the best of our information and according to the explanations given to us, except for the effects of the matter described in the Basis for Qualified Opinion paragraph above, the aforesaid Standalone Financial Statements give the information in the manner so required and give a true and fair view in conformity with the accounting principles generally accepted in India, of the financial position of the Society as at 31st March, 2018 and its financial performance for the year ended on that date.

6. Emphasis of Matter

We draw attention to the following matters in the Notes to the Standalone Financial Statements :

- 6.1.1. Sub-Note No. 4.1. of Clause - C in Schedule – 'N' describes that, absence of any specific Grants for payment of Fees to the Kolkata Municipal Corporation for sanctioning of the Building Plan for the proposed construction of the Innovation Centre has been instrumental in incurring the related expenditures of Rs.21,35,989/= including the related Bank Charges of Rs. 9,572/= out of the Maintenance Grants received from the Deptt. of Higher Education, Govt. of West Bengal. The said sum being capital in nature, has duly been considered as Capital Work- in-progress forming part of Schedule - 'C', depicting details of the Institute's Fixed Assets.
- 6.1.2. In this connection, attention is drawn to the Note No. 3. under Clause - B of Schedule - 'N', which specifies the Accounting Policies of the Society as regards recognition and treatments of Grants-in-Aid received. However, the relevant provisions as regards Exemption of Income under the Income Tax Act, 1961 do not discriminate between expenditures of capital and revenue nature as both qualify for being considered as application of income for charitable purposes.
- 6.2. Albeit, the stipulated terms and conditions of the requisite sanctions to the eligible Scholars for Scholarships and Book Grants demand that, the necessary information and documents are to be furnished by the concerned beneficiaries themselves, yet, evidences in support of initiatives by the Society in the form of any correspondences or otherwise with the concerned Scholars for discharging the corresponding liabilities are not noticed to have been taken during the year under audit.
- 6.3. Our opinion is not modified in respect of the matters deliberated under the preceding sub-Clauses of this Paragraph.



7. Other Reporting Responsibilities

- 7.1. We have obtained all the information and explanations which, to the best of our knowledge and belief, were necessary for the purposes of our audit and have found them to be satisfactory ;
- 7.2. The transactions of the Society, which have come to our notice, have been within the powers of the Society.
- 7.3. In our opinion, except for the effect of the matters stated in the Basis for Qualified Opinion paragraph above, proper books of account as required by law have been kept by the Society so far as it appears from our examination of those books ;
- 7.4. In our opinion, except for the effect of the matters stated in the Basis for Qualified Opinion paragraph above, the Standalone Financial Statements comply with the Accounting Standards to the extent applicable to the Society ;
- 7.5 The Balance Sheet and the Income & Expenditure Account, referred to in this report are in agreement with the books of account maintained for the preparation of these Standalone Financial Statements.

Dated : Kolkata
The 19th September, 2018

For Pan & Associates
Chartered Accountants
Firm Regn. No. : 322655E

Sd/-
Shekhar Kumar Pan
(Proprietor)
Membership No. 053883



JAGADIS BOSE NATIONAL SCIENCE TALENT SEARCH

1300, RAJ DANGA MAIN ROAD, KASBA, KOLKATA - 700 107

BALANCE SHEET AS ON 31ST MARCH, 2018

PREVIOUS YEAR	SCHEDULES		CURRENT YEAR	
₹			₹	₹
SOURCES OF FUNDS				
94,500,833.29	Funds	A	114,861,662.95	
17,118,190.01	Liabilities for Unutilised Grant	B	16,302,791.14	
111,619,023.30		TOTAL		131,164,454.09
APPLICATION OF FUNDS				
23,224,747.02	Fixed Assets	C	43,086,583.09	
69,874,935.74	Investments	D	94,210,093.92	
Net Current Assets -				
28,415,585.15	Current Assets	E	7,660,871.58	
9,896,244.61	Less : Current Liabilities	F	13,793,094.50	
18,519,340.54			(6,132,222.92)	
111,619,023.30		TOTAL		131,164,454.09

Signed in terms of our report of even date.

On behalf of the Governing Body

For Pan & Associates
Chartered Accountants
Firm Regn. No. : 322655E

Sd/-

Prof. (Dr.) Maitree Bhattacharyya
Director

Sd/-

Shekhar Kumar Pan
Proprietor
Membership No. 053883

KOLKATA
The 19th September, 2018



JAGADIS BOSE NATIONAL SCIENCE TALENT SEARCH
1300, RAJ DANGA MAIN ROAD, KASBA, KOLKATA - 700 107

INCOME AND EXPENDITURE ACCOUNT (GRANT) FOR THE YEAR ENDED 31ST MARCH, 2018

Previous Year	Particulars	Government of West Bengal										Government of India						
		Sch.	Deptt. of Higher Edn. (DHE) - Maint. Grants	West Bengal	Junior Talent Search Tests (DHE - JTST)	Senior Talent Search Tests (DST-STST)	Talent Enrichment Programme (DST-TEP)	Teachers' Training Programme (DST - TTP)	Bigyani Kanya Media Bitti (DST-BKMB)	Ministry of North-East Region (MDoNER)	Deptt. of Science & Technology (DST)	Teachers' Training Programme (DST-TTP)	Schm. for Early Act'n of Talent for Science (DST-SEATS)	Talent Enrichment Programme (CSIR)	Vigyan Prasar	Indian Nat'l Science Academy (INSA)	Current Year Total	
	INCOME																	
	General :																	
34,438,689.00	Grant-in-aid		16,948,632.00	2,600,000.00	-	11,014,500.00	5,530,000.00	1,400,000.00	-	2,150,000.00	-	871,000.00	-	-	25,000.00	-	40,539,132.00	
12,420,814.04	Last Year's Surplus/(Deficit)/Unutilized Grant after adjustment / refund		5,498,125.47	475,769.49	3,507,000.00	2,746,039.50	-	-	1,994,804.00	-	108,311.75	48,219.05	2,572,170.00	-	(9,850.89)	(5,322.00)	-	16,935,266.37
	- Liabilities no longer required written back		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	- Interest earned from Saving Bank Deposits		-	-	-	-	-	-	-	-	-	129,605.00	-	-	-	-	-	129,605.00
46,859,503.04	TOTAL INCOME		22,446,757.47	3,075,769.49	3,507,000.00	13,760,539.50	5,530,000.00	1,400,000.00	1,994,804.00	2,150,000.00	108,311.75	48,219.05	2,701,775.00	871,000.00	(9,850.89)	(5,322.00)	25,000.00	57,604,003.37
	EXPENDITURES																	
	General :																	
7,483,244.00	Establishment	G	8,986,522.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8,986,522.00
17,416,388.50	Programme Expenses	H	1,194,210.00	3,326,825.00	1,035,542.00	8,703,639.00	5,493,145.00	1,399,421.00	1,123,408.90	1,630,013.00	-	926.00	1,612,771.20	871,000.00	-	-	25,000.00	28,415,901.70
5,024,594.17	Office & Administrative Expenses	I	6,262,064.53	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6,262,064.53
29,924,236.67	TOTAL EXPENDITURES		16,442,796.53	3,326,825.00	1,035,542.00	8,703,639.00	5,493,145.00	1,399,421.00	1,123,408.90	1,630,013.00	-	926.00	1,612,771.20	871,000.00	-	-	25,000.00	41,664,487.63
16,935,266.37	BALANCE		6,003,960.94	(251,055.51)	2,471,458.00	5,056,900.50	36,855.00	579.00	871,395.10	519,987.00	108,311.75	47,293.05	1,089,003.80	-	(9,850.89)	(5,322.00)	-	15,939,515.74
	Unutilised/ (Deficit)		6,003,960.94	(251,055.51)	2,471,458.00	5,056,900.50	36,855.00	579.00	871,395.10	519,987.00	108,311.75	47,293.05	1,089,003.80	-	(9,850.89)	(5,322.00)	-	15,939,515.74

Signed in terms of our report of even date.

For Pan & Associates
 Chartered Accountants
 Firm Regn. No. : 322655E

On behalf of the Governing Body

Sd/-
Shekhar Kumar Pan
 Proprietor
 Membership No. 053883

Sd/-
Prof. (Dr.) Maitree Bhattacharyya
 Director

KOLKATA
 The 19th September, 2018



JAGADIS BOSE NATIONAL SCIENCE TALENT SEARCH
1300, RAJ DANGA MAIN ROAD, KASBA, KOLKATA - 700 107

INCOME AND EXPENDITURE ACCOUNT (FUND) FOR THE YEAR ENDED 31ST MARCH, 2018

Previous Year	Particulars	Sch.	Scholars' Reserve Fund	Development Fund	Laboratory Fund	JBNSTS-Own Generation Fund	Staff Welfare & Medical Fund	Infrastructure Development Fund	Total
₹		₹	₹	₹	₹	₹	₹	₹	₹
	INCOME								
	General -								
	Scholars' Reserve Fund :								
503,000.00	Grants		200,000.00						200,000.00
653,500.00	Donations		356,000.00						356,000.00
1,477,503.30	Interests on Investments		1,435,447.09						1,435,447.09
636,125.00	Registration Fees (For Senior / Junior Talent Search Tests)		1,176,620.00						1,176,620.00
1,084.00	Miscellaneous Other Receipts		3,770.00						3,770.00
	Development Fund :								
279,676.96	Interests on Investments			131,115.51					131,115.51
3,191,064.99	Interests earned on Savings / Short-term Deposits			4,097,371.18					4,097,371.18
	Laboratory Fund :								
2,000.00	Donations				2,500.00				2,500.00
176,998.45	Interests on Investments				161,314.59				161,314.59
25,000.00	Overhead				-				-
	JBNSTS - Own Generation Fund :								
104,884.89	Rent Earned					2,500.00			2,500.00
628,335.19	Accommodation					20,685.25			20,685.25
255,000.00	Overhead					100,000.00			100,000.00
444,270.12	Interests on Investments					419,414.57			419,414.57
	Staff Welfare & Medical Fund :								
80,364.48	Interests on Investments						88,889.79		88,889.79
	Infrastructure Development Fund :								
85,209.94	Interests on Investments							93,559.95	93,559.95
8,544,017.32	TOTAL INCOME		3,171,837.09	4,228,486.69	163,814.59	542,599.82	88,889.79	93,559.95	8,289,187.93
	Carried Over								

Contd...2



JAGADIS BOSE NATIONAL SCIENCE TALENT SEARCH
 1300, RAJ DANGA MAIN ROAD, KASBA, KOLKATA - 700 107

INCOME AND EXPENDITURE ACCOUNT (FUND) FOR THE YEAR ENDED 31ST MARCH, 2018 (contd...)

Previous Year	Particulars	Sch.	Scholars' Reserve Fund	Development Fund	Laboratory Fund	JBNSTS-Own Gen. Fund	Staff Welfare & Medical Fund	Infrastructure Development Fund	Total
₹			₹	₹	₹	₹	₹	₹	₹
8,544,017.32	TOTAL INCOME Brought Forward		3,171,837.09	4,228,486.69	163,814.59	542,599.82	88,889.79	93,559.95	8,289,187.93
	LESS : EXPENDITURES								
	General -								
1,732,296.87	Scholars' Reserve Fund	J	1,645,017.38						1,645,017.38
1,377,458.69	Development Fund	K		1,547,630.44					1,547,630.44
104,369.56	Laboratory Fund	L			175,385.50				175,385.50
136,249.08	JBNSTS - Own Generation Fund	M				138,570.26			138,570.26
	- Staff Welfare & Medical Fund	N					NIL		-
	- Infrastructure Development Fund							NIL	-
3,350,374.19	TOTAL EXPENDITURES		1,645,017.38	1,547,630.44	175,385.50	138,570.26	-	-	3,506,603.58
5,193,643.13	BALANCE		1,526,819.71	2,680,856.24	(11,570.91)	404,029.56	88,889.79	93,559.95	4,782,584.35
	Excess of Income over Expenditures, i.e.,								
5,193,643.13	SURPLUS, transferred to Specific Funds		1,526,819.71	2,680,856.24	(11,570.91)	404,029.56	88,889.79	93,559.95	4,782,584.35

Signed in terms of our report of even date.

For Pan & Associates
 Chartered Accountants
 Firm Regn. No. : 322655E

On behalf of the Governing Body

Sd/-
Shekhar Kumar Pan
 Proprietor
 Membership No. 053883

Sd/-
Prof. (Dr.) Maitree Bhattacharyya
 Director

KOLKATA
 The 19th September, 2018



JAGADIS BOSE NATIONAL SCIENCE TALENT SEARCH

1300, RAJ DANGA MAIN ROAD, KASBA, KOLKATA - 700 107

INCOME AND EXPENDITURE ACCOUNT (INDIVIDUAL PROJECT GRANTS) FOR THE YEAR ENDED 31ST MARCH, 2018

Previous Year	Particulars	Government of India			Other Organisations			Total
		Science & Engineering Research Bureau (SERB) u / DST Dr. Abhijit Kar	Science & Engineering Research Bureau (SERB) u / DST Dr. Pijush Basak	Maulana Abul Kalam Azad Insttt. of Asian Studies (MAKAIAS) Dr. Paromita Roy	Indian Council of Medical Research (ICMR) Fellowship Grant Mr. R. Pattanayak			
₹	Sch.	₹	₹	₹	₹	₹	₹	
	INCOME							
	General :							
400,000.00	Grant-in-aid	-	1,000,000.00	-	375,830.00	1,375,830.00		
20,907.00	Interests earned on Savings Deposits	2,117.00	18,845.00	37.00	-	20,999.00		
	Last year's Surplus / (Deficit) /	-						
	Unutilized Grant after adjustment /	-						
826,080.28	refund during the year	(181,903.72)	133,298.00	1,621.00	-	(46,984.72)		
1,246,987.28	TOTAL INCOME	(179,786.72)	1,152,143.00	1,658.00	375,830.00	1,349,844.28		
	EXPENDITURES							
	General :							
1,293,972.00	Programme Expenses	-	1,097,915.75	-	367,500.00	1,465,415.75		
1,293,972.00	TOTAL EXPENDITURES	-	1,097,915.75	-	367,500.00	1,465,415.75		
(46,984.72)	BALANCE	(179,786.72)	54,227.25	1,658.00	8,330.00	(115,571.47)		
(46,984.72)	UNUTILISED GRANTS Carried forward	(179,786.72)	54,227.25	1,658.00	8,330.00	(115,571.47)		

Signed in terms of our report of even date.

For Pan & Associates
Chartered Accountants
Firm Regn. No. : 322655E

Sd/-
Shekhar Kumar Pan
Proprietor
Membership No. 053883

On behalf of the Governing Body

Sd/-
Prof. (Dr.) Maitree Bhattacharyya
Director

KOLKATA
The 19th September, 2018



JAGADIS BOSE NATIONAL SCIENCE TALENT SEARCH

1300, RAJ DANGA MAIN ROAD, KASBA, KOLKATA - 700 107

SCHEDULE - A

FUNDS

PREVIOUS YEAR ₹		CURRENT YEAR	
		₹	₹
	SCHOLARS' RESERVE FUND :		
12,538,137.07	Balance as per last account	14,077,052.50	
-	Add : Donation (Corpus)	50,000.00	
<u>1,538,915.43</u>	Add : Surplus for the year as per Income & Expenditure Account	<u>1,526,819.71</u>	
14,077,052.50			15,653,872.21
	DEVELOPMENT FUND :		
50,065,227.99	Balance as per last account	69,521,938.25	
-	Add : Donation (Corpus)	-	
17,363,427.00	Add : Capital Grants received during the year	15,660,469.00	
<u>2,093,283.26</u>	Add : Surplus for the year as per Income & Expenditure Account	<u>2,680,856.24</u>	
69,521,938.25			87,863,263.49
	LABORATORY FUND :		
2,138,985.14	Balance as per last account	2,247,215.03	
8,601.00	Add : Donation (Corpus)	5,000.00	
<u>99,628.89</u>	Add : Surplus for the year as per Income & Expenditure Account	<u>(11,570.91)</u>	
2,247,215.03			2,240,644.12
	SPECIAL RESERVE FUND :		
28,365.09	Balance as per last account	28,365.09	
-	Less : Loss on Disposal of non-performing Assets	14,401.16	
<u>28,365.09</u>			13,963.93
1,022,328.77			899,168.25
	PROJECT CAPITAL ASSETS FUND (Sub-schedule - A 1)		
	CONTINGENCY FUND :		
1,000,000.00	Balance as per last account		1,000,000.00
	JBNSTS - OWN GENERATION FUND :		
4,102,961.80	Balance as per last account	5,199,202.92	
<u>1,296,241.12</u>	Add : Surplus for the year as per Income & Expenditure Account	<u>404,029.56</u>	
5,399,202.92		5,603,232.48	
	Less : Transfer to Other Funds -		
(100,000.00)	a) To Staff Welfare & Medical Fund	(100,000.00)	
(100,000.00)	b) To Infrastructure Development Fund	(100,000.00)	
<u>5,199,202.92</u>			5,403,232.48
	STAFF WELFARE & MEDICAL FUND :		
497,129.99	Balance as per last account	677,494.47	
100,000.00	Add : Transfer from JBNSTS - Own Generation Fund	100,000.00	
<u>80,364.48</u>	Add : Surplus for the year as per Income & Expenditure Account	<u>88,889.79</u>	
677,494.47			866,384.26
	INFRASTRUCTURE DEVELOPMENT FUND :		
533,133.10	Balance as per last account	718,343.04	
100,000.00	Add : Transfer from JBNSTS - Own Generation Fund	100,000.00	
<u>85,209.94</u>	Add : Surplus for the year as per Income & Expenditure Account	<u>93,559.95</u>	
718,343.04			911,902.99
	RETIREMENT BENEFIT FUND - (Provident Fund) :		
8,476.22	Balance as per last account	8,893.22	
417.00	Add : Interests earned during the year	338.00	
-	Less : Current Year's Expenses	-	
<u>8,893.22</u>			9,231.22
94,500,833.29	TOTAL :		114,861,662.95



JAGADIS BOSE NATIONAL SCIENCE TALENT SEARCH

1300, RAJ DANGA MAIN ROAD, KASBA, KOLKATA - 700 107

SCHEDULE - A1

PROJECT CAPITAL ASSETS FUND [Sub-Schedule to Schedule - "A"]

PREVIOUS YEAR	CURRENT YEAR			
	₹	₹		₹
		Project Monitored by Principal Investigators		Total
		Dr. Abhijit Kar	Dr. Pijush Basak	
PROJECT FUND				
1,205,373.37	Balance as per last account	805,179.31	217,149.46	-
-	Add : Capital Grant received during the year	-	-	-
-	Add : Adjustments for non-performing Assets disposed off during the year	-	-	151,792.41
1,205,373.37		805,179.31	217,149.46	151,792.41
	Less :			
183,044.60	a) Depreciation for the year	125,330.55	32,529.97	-
-	b) Loss on disposal of non-performing Assets	-	-	117,092.41
1,022,328.77	TOTAL :	679,848.76	184,619.49	34,700.00
				899,168.25

SCHEDULE - "B"

LIABILITIES FOR UNUTILISED GRANTS

A. In respect of Grants Received from different Authorities of Govt. of West Bengal -				
5,498,125.47	a) Deptt. of Higher Education (DHE)			
	i) Unspent Balance towards Revenue Expenditures		3,867,971.94	
	ii) Amount utilised for Capital purposes - (Sch. - "C")		2,135,989.00	
	[<i>Transferred from Income & Expenditure (Grant) Account</i>]			6,003,960.94
475,769.49	b) DHE - West Bengal District Scheme (WBDS)			-
3,507,000.00	c) DHE - Junior Talent Search Tests (JTST)			2,471,458.00
2,746,039.50	d) Deptt. of Science & Technology (DST) - Junior Talent Search Tests			5,056,900.50
-	e) DST - Senior Talent Search Tests (STST)			36,855.00
-	f) DST - Talent Enrichment Programme (TEP)			579.00
1,984,804.00	g) DST - Teachers' Training Programme (TTP)			871,395.10
-	h) DST - Bigyani Kanya Medha Britti (BKMB)			519,987.00
30,000.00	i) West Bengal Academy of Science & Technology (WAST) [<i>As per last account</i>]			30,000.00
2,831.75	j) DST - (WAST) [<i>As per last account</i>]			2,831.75
14,244,570.21	Sub Total :			14,993,967.29
B. In respect of Grants Received from different Authorities of Govt. of India -				
108,311.75	a) Ministry of Development of North Eastern Region (DoNER) [<i>As per last account</i>]		108,311.75	
48,219.05	b) Deptt. of Science and Technology (DST)			47,293.05
2,582,170.00	c) DST - Teachers' Training Programme (TTP)			
	i) Unspent Balance towards Revenue Expenditures		1,038,405.80	
	ii) Amount utilised for Capital purposes - (Sch. - "C")		50,598.00	
	[<i>Transferred from Income & Expenditure (Grant) Account</i>]			1,089,003.80
2,738,700.80	Sub Total			1,244,608.60
C. In respect of Project Grants received from different Authorities of Govt. of India -				
133,298.00	a) Science & Engineering Research Bureau (SERB) under DST - Principal Investigator - Dr. Pijush Basak			54,227.25
1,621.00	b) Maulana Abul Kalam Azad Instt. of Asian Studies (MAKAIAS) - Principal Investigator - Dr. Paromita Roy			1,658.00
	c) Indian Council of Medical Research (ICMR) - Senior Research Fellow - Mr. Rudradip Pattanayak			8,330.00
134,919.00	Sub Total :			64,215.25
17,118,190.01	TOTAL :			16,302,791.14



JAGADIS BOSE NATIONAL SCIENCE TALENT SEARCH

1300, RAJ DANGA MAIN ROAD, KASBA, KOLKATA - 700 107

SCHEDULE - "C"

FIXED ASSETS

Description of Assets	Written Down	Adjustments /	Addition	Value	Rate of	Depreciation	Written Down
	Value as on 01.04.2017	Written off during the year	during the year	as on 31.03.2018	Depreci- ation	for the year	Value as on 31.03.2018
	₹	₹	₹	₹	%	₹	₹
A. Assets pertaining to Development Fund -							
1) Leasehold Land	2,075,669.00	-	-	2,075,669.00	-	-	2,075,669.00
2) Building	14,996,139.80	-	985,274.00	15,981,413.80	5%	799,070.69	15,182,343.11
3) Biotechnology Laboratory	-	-	2,817,565.00	2,817,565.00	15%	212,828.93	2,604,736.07
4) Rain Water Harvesting System	53,635.42	-	-	53,635.42	5%	2,681.77	50,953.65
5) Mural	33,797.12	-	-	33,797.12	5%	1,689.86	32,107.26
6) Electrical Equipment	344,973.07	-	-	344,973.07	15%	51,745.96	293,227.11
7) Electrical Fittings	155,364.32	73,396.92	-	81,967.40	10%	8,196.74	73,770.66
8) Electrical Fittings funded by GoWB	156,172.50	-	-	156,172.50	10%	15,617.25	140,555.25
9) Furniture	316,055.45	-	25,125.00	341,180.45	10%	34,118.05	307,062.40
10) Office Equipment	197,901.60	-	18,100.00	216,001.60	15%	32,167.74	183,833.86
11) Science Indoor Exhibits	83,780.30	-	-	83,780.30	15%	12,567.05	71,213.25
12) Computers	8,731.12	-	-	8,731.12	40%	3,492.45	5,238.67
13) Laboratory Equipment	10,719.73	-	-	10,719.73	15%	1,607.96	9,111.77
14) Computers & Accessories funded by GoWB	81,596.06	-	-	81,596.06	40%	32,638.42	48,957.64
15) Printer / Scanner / Photocopier funded by GoWB	86,135.16	-	-	86,135.16	40%	34,454.06	51,681.10
16) Air Conditioners (Dormitory)	542,925.90	-	-	542,925.90	10%	54,292.59	488,633.31
A1. Capital Work-in-Progress pertaining to Development Fund -							
17) Building (Innovation Centre)	129,147.00	-	2,135,989.00	2,265,136.00	NA	-	2,265,136.00
18) Creative Science Corner	-	-	838,606.00	838,606.00	NA	-	838,606.00
19) Structures for Rooftop Canteen	1,350,000.00	-	4,874,045.00	6,224,045.00	NA	-	6,224,045.00
20) Smart Class Rooms	-	-	9,822,050.00	9,822,050.00	NA	-	9,822,050.00
Sub-total (Development Fund) :	20,622,743.55	73,396.92	21,516,754.00	42,066,100.63		1,297,169.52	40,768,931.11
B. Assets pertaining to Laboratory Fund -							
1) Furniture	144,354.65	-	-	144,354.65	10%	14,435.47	129,919.18
2) Laboratory Equipment	481,860.21	-	-	481,860.21	15%	72,279.03	409,581.18
Sub-total (Laboratory Fund) :	626,214.86	-	-	626,214.86		86,714.50	539,500.36
C. Assets pertaining to DHE, Govt. of West Bengal -							
1) Office Equipment	2.56	-	-	2.56	15%	0.38	2.18
2) Furniture	1,542.56	-	-	1,542.56	10%	154.26	1,388.30
3) Computers & Accessories (WBDS, GoWB)	54,355.00	-	-	54,355.00	40%	21,742.00	32,613.00
4) Computers & Accessories (BKMB, GoWB)	-	-	76,492.00	76,492.00	40%	15,298.40	61,193.60
Sub-total (Dept. of Higher Edn., Govt. of WB) :	55,900.12	-	76,492.00	132,392.12		37,195.04	95,197.08
D. Assets pertaining to JBNSTS - Own Generation Fund -							
1) Laboratory Equipment	444,880.35	-	-	444,880.35	15%	66,732.05	378,148.30
2) Computers	3,484.38	-	-	3,484.38	40%	1,393.75	2,090.63
3) Office Equipment	94,001.41	-	-	94,001.41	15%	14,100.21	79,901.20
4) Electrical Equipment	111,914.13	-	-	111,914.13	15%	16,787.12	95,127.01
5) Furniture & Fixtures	153,500.20	-	-	153,500.20	10%	15,350.02	138,150.18
6) Electrical Fittings	13,760.73	-	-	13,760.73	15%	2,064.11	11,696.62
Sub-total (JBNSTS - Own Generation Fund) :	821,541.20	-	-	821,541.20		116,427.26	705,113.94
E. Assets pertaining to Capital Fund -							
1) Laboratory Equipment	802,144.11	-	-	802,144.11	15%	120,321.62	681,822.49
2) Computers	3,035.20	-	-	3,035.20	40%	1,214.08	1,821.12
Sub-total (Capital Fund) PI : Dr. A. Kar :	805,179.31	-	-	805,179.31		121,535.70	683,643.61
F. Laboratory Equipment (SERB) PI : Dr. P. Basak :	209,309.46	-	7,557.00	216,866.46	15%	32,529.97	184,336.49
G. Equipment (DST - TTP) [PI : Dr. A. Kar] :	-	-	50,598.00	50,598.00	15%	3,794.85	46,803.15
H. Assets pertaining to Special Reserve Fund -							
1) Furniture & Fittings	31,130.37	-	-	31,130.37	-	-	31,130.37
2) Computers	4,992.46	-	-	4,992.46	-	-	4,992.46
3) Electrical Equipment	37,604.58	20,390.74	-	17,213.84	-	-	17,213.84
4) Electrical Fittings	6,731.10	410.42	-	6,320.68	-	-	6,320.68
5) Office Equipment	3,400.00	-	-	3,400.00	-	-	3,400.00
Sub-total (Special Reserve Fund) :	83,858.51	20,801.16	-	63,057.35	-	-	63,057.35
TOTAL :	23,224,747.02	94,198.08	21,651,401.00	44,781,949.94		1,695,366.84	43,086,583.09
Previous Year :	20,845,483.80	8,656,667.00	12,703,871.00	24,892,687.80		1,667,940.78	23,224,747.02



JAGADIS BOSE NATIONAL SCIENCE TALENT SEARCH

1300, RAJ DANGA MAIN ROAD, KASBA, KOLKATA - 700 107

SCHEDULE - "D"

INVESTMENTS

PREVIOUS YEAR		CURRENT YEAR		
₹		₹	₹	₹
CURRENT INVESTMENTS :				
A. Investments in Short-Term Fixed Deposits -				
2,567,017.00	a) With State Bank of India, Kasba Branch	2,567,017.00		
40,090,953.65	b) With United Bank of India, Bosepukur Rajdanga Branch	61,670,044.93		
42,657,970.65	:		64,237,061.93	
B. Interests Accrued on above Fixed Deposits -				
56,366.00	a) With State Bank of India, Kasba Branch	129,616.00		
579,403.09	b) With United Bank of India, Bosepukur Rajdanga Branch	684,760.99		
635,769.09	Sub Total	:	814,376.99	
43,293,739.74	TOTAL	:	65,051,438.92	
LONG - TERM INVESTMENTS -				
A. Investments in Long-Term Fixed Deposits -				
22,300,000.00	a) With State Bank of India, Kasba Branch	24,900,000.00		
1,100,000.00	b) With State Bank of India, Jeevan Deep Branch	1,100,000.00		
30,000.00	c) With UCO Bank, Brabourne Road Branch	30,000.00		
2,044,000.00	d) With Housing Development Finance Corporation Ltd.	2,044,000.00		
800,000.00	e) With State Bank of India (FC), Salt Lake, Sector - 1 Branch	800,000.00		
26,274,000.00	Sub Total	:	28,874,000.00	
B. Interests Accrued on above Fixed Deposits -				
296,970.00	a) With State Bank of India, Kasba Branch	272,712.00		
-	b) With Housing Development Finance Corporation Ltd.	1,735.00		
10,226.00	c) With State Bank of India (FC), Salt Lake, Sector - 1 Branch	10,208.00		
307,196.00	Sub Total	:	284,655.00	
	TOTAL	:	29,158,655.00	
69,874,935.74	GRAND TOTAL	:	94,210,093.92	



JAGADIS BOSE NATIONAL SCIENCE TALENT SEARCH

1300, RAJ DANGA MAIN ROAD, KASBA, KOLKATA - 700 107

SCHEDULE - "E"

CURRENT ASSETS, LOANS & ADVANCES

PREVIOUS YEAR		CURRENT YEAR		
₹		₹	₹	₹
53,782.00	A. CURRENT ASSETS -			
	a) Cash in hand (As physically verified)			26,449.00
	b) Cash at Bank (Held in Savings Bank Accounts with)			
963,151.88	i) SBI, Kasba Branch - Development Fund (A/c. No. 10415825360)	957,657.88		
281,496.52	ii) SBI, Salt Lake, Sector - 1 Branch - FC (A/c. No. 10836429242)	361,112.52		
3,278,671.38	iii) SBI, Kasba Branch - Project (A/c. No. 10415825359)	61,522.20		
100,999.93	iv) SBI, Kasba Branch - Scholars' Res. Fund (A/c. No.10415825348)	867,538.70		
22,445,820.83	v) United Bank of India (UNI), Bosepukur Rajdanga (A/c. No. 5486)	3,458,321.08		
8,642.67	vi) UNI, Bosepukur Rajdanga - Provident Fund (A/c. No. 5657)	-		
11,381.00	vii) Union Bank of India, Ballygunge Branch (A/c. No. 301202010009819)	-		
144,684.00	viii) SBI, Kasba (Govt. Aided Project 01 - Dr. Pijush Basak)	59,473.25		
957.00	ix) SBI, Kasba (Govt. Aided Project 02 - Dr. Paromita Roy)	994.00		
56,930.28	x) SBI, Kasba (Govt. Aided Project 03 - Dr. Abhijit Kar)	59,050.28		
27,292,735.49	Sub Total :		5,825,669.91	
	c) Cash at Bank (Held in Current Accounts with)			
10,305.00	i) SBI, Kasba Branch (A/c. No. CA - 35061192770)	62,556.00		
10,000.00	ii) SBI, Kasba Branch (A/c. No. CA - 33224282758)	10,000.00		
20,305.00	Sub Total :		72,556.00	
	d) Interests Accrued on Savings Bank Deposits			
590.00	i) SBI, Kasba Branch - Development Fund (A/c. No. 10415825360)	532.00		
185.00	ii) SBI, Salt Lake, Sector - 1 Branch - FC (A/c. No. 10836429242)	208.00		
80.00	iii) SBI, Kasba Branch - Scholars' Res. Fund (A/c. No.10415825348)	485.00		
2,282.00	iii) SBI, Kasba Branch - Project (A/c. No. 10415825359)	119.00		
212.00	viii) SBI, Kasba (Govt. Aided Project 01 - Dr. Pijush Basak)	90.00		
1.00	ix) SBI, Kasba (Govt. Aided Project 02 - Dr. Paromita Roy)	1.00		
37.00	x) SBI, Kasba (Govt. Aided Project 03 - Dr. Abhijit Kar)	34.00		
3,387.00	Sub Total :		1,469.00	
27,316,427.49	TOTAL :			5,899,694.91
27,370,209.49	TOTAL (A) :			5,926,143.91
	B. LOANS & ADVANCES - (Advances recoverable in cash or in kind or for value to be received - unsecured, considered good)			
	a) Security Deposits -			
11,000.00	i) For Telephone	11,000.00		
92,827.10	ii) For Electricity	96,894.10		
103,827.10	Sub Total		107,894.10	
	b) Grant-in-Aids Receivable -			
605,808.00	i) From Deptt of Higher Education (DHE), Govt. of West Bengal	896,155.00		
-	ii) From DHE - West Bengal District Scheme (WBDS), Govt. of WB	251,055.51		
9,850.89	iii) From Council of Scientific & Ind. Research, Govt. of India [As per last a/c.]	9,850.89		
83,120.00	iv) From Deptt. of Science & Technology, Govt. of India (SEATS)	129,127.00		
5,322.00	v) From Govt. of India, Vigyan Prasar [As per last account]	5,322.00		
181,903.72	vi) From Govt. of India, Science & Engineering Research Bureau (SERB) under DST	179,786.72		
886,004.61	Sub Total :		1,471,297.12	
2,730.00	c) Advance against Salary	2,600.00		
4,670.00	d) Advances to Staff against Tours / Programmes	80,437.00		
3,140.95	e) Advance for Office Expenses (Postage)	3,139.95		
24,545.00	f) Advances to Suppliers	28,765.00		
20,335.00	g) Prepaid Expenses	39,146.50		
123.00	h) Tax Deducted at Sources	123.00		
-	l) Tax Deducted at Sources (Refundable)	1,325.00		
1,045,375.66	TOTAL (B) :			1,734,727.67
28,415,585.15	GRAND TOTAL (A + B) :			7,660,871.58



JAGADIS BOSE NATIONAL SCIENCE TALENT SEARCH

1300, RAJ DANGA MAIN ROAD, KASBA, KOLKATA - 700 107

SCHEDULE - "F"

CURRENT LIABILITIES AND PROVISIONS

PREVIOUS YEAR		CURRENT YEAR		
₹		₹	₹	₹
	A. Liabilities for Expenses :			
	Liabilities under Scholars' Reserve Fund -			
2,218,561.00	a) Scholarships (Senior)	3,136,853.00		
388,388.50	b) Book Grants (Senior)	468,315.50		
			3,605,168.50	
64,050.00	Junior Talent Search Test Expenses (DST, GoWB)		2,000.00	
15,000.00	Best School Award		15,000.00	
	Expenses under Other Programmes of DST, GOI -			
70,350.00	a) Teachers' Training Programme	29,250.00		
273,606.11	b) Scheme for Early Attraction of Talent for Science (SEATS)	385,385.00		
23,173.00	c) Science & Engg. Research Bureau (SERB)	-		
565.00	d) Science Workshop for Contact Programmes	-	414,635.00	
	Teachers' Training Programme (TTP) Expenses (DST, GoWB)		31,200.00	
	Talent Enrichment Programme (TEP) Expenses (DST, GoWB)		31,171.00	
	Bigyani Kannya (DST, GoWB)		76,492.00	
	Repair & Maintenance Expenses -			
36,402.00	a) For General purposes	20,823.00		
483,263.00	b) For Building	-	20,823.00	
29,517.00	Contingency		-	
133,560.00	Staff Welfare Expenses		-	
	Postage & Telephone		1,295.00	
	City Conveyance		52,710.00	
	Liabilities under Development Fund -			
517,430.00	a) For Building (Interior Decoration & Renovation)	353,750.00		
	b) For Creative Science Corner	500,939.00		
	c) For Smart Class Rooms	4,883,233.00		
1,263,750.00	d) For Structures for Rooftop Canteen	-	5,737,922.00	
29,470.00	Electricity		40,260.00	
	Security Service Charges		79,620.00	
35,400.00	Professional Fees		32,400.00	
35,400.00	Audit Fees		32,400.00	
900.00	Profession Tax (Employees)		4,360.00	
21,354.00	Income Tax Deducted at Sources (Contractors)		59,698.00	
8,000.00	Income Tax Deducted at Sources (Consultancy)		6,000.00	
26,287.00	Work Contract Tax Deducted at Sources		-	
5,674,426.61	Sub Total :		10,243,154.50	
	B. Security Deposits from Contractors			
93,291.00	a) For Civil Constructions		134,632.00	
-	b) For Electrical Installations		109,781.00	
93,291.00			244,413.00	
70,000.00	C. Deposits from Scholars (Talent Enrichment Programme [TEP])		48,000.00	
	D. Liabilities towards Grants from DST, GoWB -			
	Grants received in Advance			
2,462,500.00	a) For Junior Talent Search Test		2,900,000.00	
1,075,000.00	b) For Talent Enrichment Programme		-	
3,537,500.00	Sub Total :		2,900,000.00	
	E. Liabilities towards Grants from DST (SEATS), GOI -			
521,027.00	Grants Refundable (For Finished Camps)		357,527.00	
9,896,244.61	TOTAL :		13,793,094.50	



JAGADIS BOSE NATIONAL SCIENCE TALENT SEARCH

1300, RAJ DANGA MAIN ROAD, KASBA, KOLKATA - 700 107

SCHEDULE - "G"

ESTABLISHMENT

PREVIOUS YEAR		CURRENT YEAR	
₹		₹	₹
7,421,588.00	Salaries & Allowances	8,526,336.00	
-	Leave Salary	398,530.00	
61,656.00	Contribution to Provident Fund (Office)	61,656.00	
7,483,244.00	TOTAL		8,986,522.00

SCHEDULE - "H"

PROGRAMME EXPENSES

PREVIOUS YEAR		CURRENT YEAR	
₹		₹	₹
	I. Expenses funded by Deptt. of Higher Education, Govt. of West Bengal -		
287,021.00	Annual Award Ceremony	1,131,831.00	
1,027,360.00	Talent Search Test	-	
158,501.00	Awareness Programmes	-	
10,000.00	Best School Award	10,000.00	
94,304.00	Books & Journals	52,379.00	
1,577,186.00	Sub Total :		1,194,210.00
	II. Expenses under Govt. of West Bengal [DHE - West Bengal District Scheme (WBDS)] -		
20,769.00	Academic Meeting	40,951.00	
35,431.00	Base Line Tests	-	
1,976,616.00	Science / Advanced Science Workshop	3,052,495.00	
101,265.00	Teachers' Training Programmes	-	
223,127.00	Project Competitions	-	
91,292.00	Special Programme for Underprivileged Students	233,379.00	
2,448,500.00	Sub Total :		3,326,825.00
	III. Expenses under Govt. of West Bengal [DHE - Junior Talent Search Test (JTST)]		
-	Awareness Programmes	120,000.00	
-	Contingencies	5,210.00	
-	Science Workshop	763,706.00	
-	Talent Search Tests	146,626.00	
-	Sub Total :		1,035,542.00
	IV. Expenses under Govt. of West Bengal [DST - Junior Talent Search Test (JTST)]		
3,400,000.00	Aids to Schools for Establishment of Laboratories	100,000.00	
212,951.00	Annual Award Ceremony	-	
5,000.00	Best School Award	20,000.00	
101,000.00	Encouragement Awards	-	
312,500.00	Book Grants	892,000.00	
1,974,000.00	Scholarships	3,792,000.00	
215,512.00	Science Workshop	-	
1,090,877.00	Talent Search Tests	2,627,260.00	
232,019.00	Awareness Programmes	362,908.00	
115,050.00	Teaching Aid	21,000.00	
515,290.00	Remunerations	663,793.00	
9,971.50	Contingencies	224,678.00	
2,500.00	Office Overhead	-	
2,549.00	Postage & Telephone	-	
8,189,219.50	Sub Total :		8,703,639.00
12,214,905.50	Carried Over :		14,260,216.00



SCHEDULE - "H"

PROGRAMME EXPENSES contd...H

PREVIOUS YEAR		CURRENT YEAR	
₹		₹	₹
12,214,905.50	Brought Forward :		14,260,216.00
	V. Expenses under Govt. of West Bengal [DST - Senior Talent Search Test (STST)]		
-	Book Grants	455,000.00	
-	Teaching Aids & Accessories (Laptop for Scholars)	1,064,360.00	
-	Scholarship	2,400,000.00	
-	Talent Search Tests	1,573,785.00	
-	Sub Total :		5,493,145.00
	VI. Expenses under Govt. of West Bengal [DST - Teachers' Training Programmes (TTP)]		
428,970.00	Activity-based Workshop	710,514.00	
273,098.00	Manpower Costs	25,000.00	
-	Fooding, Lodging & Refreshment Expenses	122,690.00	
-	Consumables	145,567.90	
-	Honoraum to Resource Personnel	23,730.00	
33,898.00	Meeting Expenses for Workshop Planning	31,407.00	
-	Travels for Mentors & Participants	64,500.00	
735,966.00	Sub Total :		1,123,408.90
	VII. Expenses under Govt. of West Bengal [DST - Talent Enrichment Programme (TEP)]		
-	Seminars & Workshops	201,160.00	
-	Support to Scholars for Research Projects	91,100.00	
-	Visits to Research & Science Establishments	1,035,033.00	
-	Contingencies	72,128.00	
-	Sub Total :		1,399,421.00
	VIII. Expenses under Govt. of West Bengal [DST - Bigyani Kanya Medha Britti]		
-	Book Grants	100,000.00	
-	Scholarship	1,200,000.00	
-	Manpower Costs	275,000.00	
-	Workshop Expenses	55,013.00	
-	Sub Total :		1,630,013.00
	IX. Expenses under Govt. of India [DST - Teachers' Training Programmes]		
59,371.00	Manpower Costs	225,844.00	
136,096.00	Expenses on Kits & Manuals / Consumables (Laboratory Materials)	365,295.00	
73,024.00	Fooding, Lodging & Refreshment Expenses	610,520.00	
3,147.00	Contingencies / Miscellaneous Expenses	61.20	
76,192.00	Travels for Mentors & Participants	411,051.00	
80,000.00	Overhead Expenses	-	
427,830.00	Sub Total :		1,612,771.20
	X. Expenses under Govt. of India [DST]		
4,682.00	Science Workshop for Contact Programmes		926.00
	XI. Expenses under Govt. of India [DST - SEATS]		
3,815,269.00	Science Camps (INSPIRE)		871,000.00
	XII. Expenses under Govt. of India [DST - Vigyan Prasar]		
27,322.00	Science Workshop Expenses	-	
17,225,974.50	Carried Over		: 26,390,901.10



SCHEDULE - "H"

PROGRAMME EXPENSES contd...H

PREVIOUS YEAR		CURRENT YEAR	
₹		₹	₹
17,225,974.50	<i>Brought Fwd.</i>		26,390,901.10
	XIII. Expenses funded by Talent Enrichment Programme (CSIR), Govt. of India		
3,607.00	City Conveyance	-	
40.00	Postage & Telephone	-	
87,133.00	Remuneration	-	
93,542.00	Seminar	-	
6,102.00	Travels	-	
190,424.00	Sub Total :	-	
	XIV. Expenses under Science & Engg. Research Bureau, Govt. of India [DST - SERB]		
	a) Research Activities (Principal Investigator - Dr. Abhijit Kar)		
70,333.00	Fellowship (Manpower Costs)	-	
105,926.00	Consumables	-	
9,114.00	Travel	-	
38,328.00	Contingencies	-	
100,000.00	Overhead Expenses	-	
323,701.00	Sub Total :	-	
	b) Research Activities (Principal Investigator - Dr. Pijush Basak)		
660,000.00	Fellowship (Manpower Costs)	660,000.00	
116,143.00	Consumables	337,915.75	
18,102.00	Travel	-	
65,276.00	Contingencies	-	
100,000.00	Overhead Expenses	100,000.00	
959,521.00	Sub Total :	1,097,915.75	
1,283,222.00			1,097,915.75
	XV. Expenses funded by Maulana Abul Kalam Azad Instt. of Asian Studies (MAKAIAS)		
10,750.00	Research Activities (Principal Investigator - Dr. Paromita Roy)	-	
	XVI. Expenses funded by Indian Council of Medical Research (ICMR)		
-	Fellowship Stipend (Senior Research Fellow - Mr. Rudradip Pattanayak)	357,500.00	
-	Contingencies	10,000.00	
-	Sub Total :		367,500.00
	XVII. Expenses funded by Indian National Science Academy (INSA)		
-	Expenses on National Science Day Celebration Programme		25,000.00
18,710,370.50	TOTAL		27,881,316.85



JAGADIS BOSE NATIONAL SCIENCE TALENT SEARCH

1300, RAJ DANGA MAIN ROAD, KASBA, KOLKATA - 700 107

SCHEDULE - "I"

OFFICE & ADMINISTRATIVE EXPENSES

PREVIOUS YEAR		CURRENT YEAR		
₹		₹	₹	₹
88,392.00	Postage & Telephone		94,224.00	
161,775.12	Contingency		173,037.87	
379,452.00	Electricity		437,774.50	
109,793.00	Printing & Stationery		101,909.00	
524,385.00	City Conveyance		682,725.62	
325,897.20	Staff Welfare Expenses		37,177.00	
30,653.00	Pronouncement & Publicity		272,782.00	
385,488.00	Property Tax		357,120.00	
	Repair & Maintenance Expenses -			
166,724.00	a) For Computers & Other Equipment	342,732.50		
85,000.00	b) For Laboratory Equipment	-		
899,477.00	c) For Building	1,626,961.00		
397,763.00	d) For Dormitory	71,040.00		
317,388.00	e) For General purposes	301,313.00		
			2,342,046.50	
559,324.00	Security Service Charges		969,833.00	
255,994.00	Cleaning & Sanitation Expenses		366,461.00	
181,372.00	Remuneration to Contractual Employees		270,000.00	
58,400.00	Professional Fees		35,400.00	
38,450.00	Legal and Filing Fees & Expenses		48,979.00	
35,400.00	Audit Fees		35,400.00	
23,466.85	Depreciation on Assets pertaining to DHE, GoWB		37,195.04	
5,024,594.17	TOTAL :		6,262,064.5	

SCHEDULE - "J"

EXPENSES UNDER SCHOLARS' RESERVE FUND

₹		₹	₹
1,532,000.00	Scholarship	1,528,000.00	
171,000.00	Book Grants	109,000.00	
29,296.87	Workshop on Science & Scientists	8,017.38	
1,732,296.87	TOTAL	1,645,017.38	

SCHEDULE - "K"

EXPENSES UNDER DEVELOPMENT FUND

₹		₹	₹
-	Remuneration to Contractual Employees at Biotechnology Laboratory	189,078.00	
153,352.00	Repairs & Maintenance Expenses	3,886.00	
-	Loss on Disposal of non-performing Assets	57,496.92	
1,224,106.69	Depreciation on Assets	1,297,169.52	
1,377,458.69	TOTAL	1,547,630.44	

**JAGADIS BOSE NATIONAL SCIENCE TALENT SEARCH**

1300, RAJ DANGA MAIN ROAD, KASBA, KOLKATA - 700 107

SCHEDULE - "L"**EXPENSES UNDER LABORATORY FUND**

PREVIOUS YEAR		CURRENT YEAR	
₹		₹	₹
3,296.00	Laboratory Fund Expenses	40,710.00	
-	Repairs & Maintenance Expenses	47,961.00	
101,073.56	Depreciation on Assets pertaining to Laboratory Fund	86,714.50	
104,369.56	TOTAL		175,385.50

SCHEDULE - "M"**EXPENSES UNDER JBNSTS - OWN GENERATION FUND**

₹		₹	₹
-	Expenses under Govt. of India [DST - Teachers' Training Programmes	22,143.00	
136,249.08	Depreciation on Assets pertaining to JBNSTS - Own Generation Fund	116,427.26	
136,249.08	TOTAL		138,570.26



JAGADIS BOSE NATIONAL SCIENCE TALENT SEARCH

1300, RAJ DANGA MAIN ROAD, KASBA, KOLKATA - 700 107

SCHEDULE - "N"

SIGNIFICANT ACCOUNTING POLICIES AND NOTES TO THE FINANCIAL STATEMENTS FOR THE YEAR ENDED 31ST MARCH, 2018

A. General Information

Jagadis Bose National Science Talent Search (JBNSTS) is an Autonomous Institution registered under the Societies Registration Act, 1860 with financial assistances of the Deptt. of Higher Education, Science & Technology and Biotechnology, Govt. of West Bengal. The Institute was promulgated in the year 1958 to mark the Birth Centenary Celebration of India's foremost modern Scientist, Acharya Jagadish Chandra Bose. JBNSTS is the nation's first science talent search organization and over the last few decades, has catapulted itself to turn out to be a premier Institute of Non-formal Science Education in the country. The Institute has been tirelessly engaged in selecting students with special aptitude for Science, guiding and helping them to comprehend its importance and in the process, building up the nation by developing its most precious resource – the human element.

B. Significant Accounting Policies

1. Basis of Preparation of Financial Statements :

1.1. The Financial Statements have been prepared in accordance with Historical Cost convention and as a going concern. The accounting policies adopted in preparation of the Financial Statements are consistent with those followed in the previous year.

2. Revenue Recognition :

2.1. The Institute derives its revenues primarily from Grant-in-Aids, Donations, Registration and other Miscellaneous Fees from the participants to different Talent Search events and various Internal Resource Generation activities. Treatments as regards Grant-in-Aids are stated separately. Revenue / Income and Cost / Expenditure items are recognised on accrual basis. Revenue is recognised on completion of rendering of services and / or use of Society's resources by third parties.

2.2.1. Interest income from bank deposits is accrued using the effective interest method and as certified by the concerned bankers at the year-end in the relevant cases.

2.2.2. In the absence of any specific investment under any particular fund, interests earned on long / short term Investments and Savings Bank Deposits have been allocated proportionately to the respective Funds on the basis of their corresponding available investible surplus at the year-end, calculated after deducting the cash outflow towards the costs of the concerned Fixed Assets from the relevant Funds, except the following cases :

- a) In respect of the Special Reserve Fund, Project Capital Assets Fund, Retirement Benefit Fund and International Conference for Gifted Minds (ICGM) Fund, for not having any investible surplus under them.



- b) As regards the Contingency Fund, due to the attainment of the stipulated limit specified thereunder.
- c) Interests of Rs. 81,000/= (Previous Year - Rs. 94,500/=) and Rs. 338/= (Previous Year - Rs. 417/=) being specific earnings of Scholars' Reserve Fund and Retirement Benefit Fund, respectively, have directly been allocated to these Funds.
- d) Interests on Long Term Investments and Savings Bank Deposits totaling Rs. 79,739/= generated from investments made out of Foreign Contributions being specific earnings of the Scholars' Reserve Fund and Development Fund, have been apportioned on the basis of respective balances of these Funds, worked out after charging off the related expenditures for the year from the corresponding Opening Balances standing at the commencement of the period under review.
- e) Similarly, Interests on Short Term Investments and Savings Bank Deposits totaling Rs. 40,97,371.18 generated from investments made out of Grant received from the Dept. of Higher Education, Govt. of West Bengal towards construction of G + II Building for Innovation Centre, have been specifically considered under Development Fund.

3. Grants-in-Aid –

- 3.1. Grants of the nature of contributions towards capital expenditures are being credited to the respective Funds.
- 3.2. Grants for meeting revenue expenditures are treated as income of the year for which they are realized, except that they will be treated as accrued income where sanctions have been issued either before the last day of the year or for the year and there is reasonable certainty of collection and realization.
- 3.3. Grants received in advance for activities to be performed / services to be rendered beyond the relevant financial period are reported as liabilities until all the conditions for revenue recognition are met irrespective of completion of rendering of services and / or use of Society's resources by third parties.

4. Use of Estimates :

The preparation of the Financial Statements in conformity with the Generally Accepted Accounting Principles in India requires the Management to make estimates and assumptions considered in the reported amounts of assets and liabilities (including contingent liabilities) on the date of the Financial Statements and the reported amounts of revenue and expenses during the reporting period. The Management believes that the estimates used in preparation of the Financial Statements are prudent and reasonable. Future results could differ due to these estimates and the differences between actual results and the estimates are recognized in the period in which the results are known / materialise.

5. Fixed Assets :

- 5.1. Fixed Assets are stated at their original Cost of acquisition (which includes direct expenditures incurred for acquisition or construction and / or installation of the assets and the share of indirect expenses comprised of attributable other costs including financial cost) and subsequent improvements thereto, as reduced by accumulated depreciation



thereon and write down for impairment, if any. Direct costs are capitalised until fixed assets are ready for use. Costs of assets not ready for use at the Balance Sheet date are disclosed under Capital Work-In-Progress.

5.2. However, Assets under Special Reserve Fund are stated at their respective costs of acquisitions less depreciation up to the date of considering the same as assets of the Institute. No depreciation is charged on assets received under programmes or other old and used assets taken into account under Special Reserve Fund.

5.3. Gains or losses arising from de-recognition of fixed assets are measured as the difference between the net disposal proceeds and the carrying amount of the corresponding assets and are recognized in the Income & Expenditure Account, when the relevant asset is derecognized.

6. **Depreciation :**

Depreciation on Fixed Assets is provided on 'Written Down Value Method' at the rates and in the manner prescribed under Income Tax Act, 1961 as would be amended from time to time.

7. **Investments :**

Investments that are readily realisable and intended to be held for not more than a year are classified as Current Investments. All other investments are classified as Long-term Investments. Current Investments are carried at lower of cost and fair value determined on an individual investment basis. Long-term investments are carried at cost. Provision for diminution in the value of investments is made, if the impairment is not temporary in nature.

8. **Foreign Currency Transactions :**

Transactions executed in foreign currencies are normally recorded at the exchange rate prevailing on the date of related transactions as computed and credited to the earmarked account by the concerned bankers handling the same.

Assets purchased in foreign currency are to be recorded at cost, based on the exchange rate on the date of purchase.

9. **Inter – Fund Transfers :**

Subject to the availability of adequate Surplus in the 'JBNSTS - Own Generation Fund', an amount of Rs. 1 Lac each is to be transferred at the end of each financial period in favour of the "Staff Welfare & Medical Fund" and "Infrastructure Development Fund" in order to strengthen the health of these Funds.

10. **Employee Benefits :**

10.1. Short Term Employee Benefit is recognized as expense in the Income & Expenditure Account of the year in which related service is rendered.

10.2. Post employment and other Long Term Employee Benefits are provided in the Accounts in the following manner :

10.2.1. Gratuity - In view of the fact that, Gratuities and Pensions are being paid to the eligible retiring employees directly by the Government of West Bengal, provisions towards liabilities for the same are not being made in the accounts.



- 10.2.2. Leave encashment on termination of service - Albeit, the provisions towards liabilities for terminal salary for Leave Encashment, payable to the eligible staff members used to be made against the Maintenance Grants (Salary) being received from the Department of Higher Education, Govt. of West Bengal till Financial Year 2013-14, yet the requisite funds are not being made available in advance by the said Authority, thereafter. Further, expenditure towards Leave Encashment Salary is allowable only on actual payment basis under the Income Tax Act, 1961. Accordingly, the Society considers that, acknowledging the liability for terminal salary for Leave Encashment and creating a suitable resultant provision for the same, would be redundant. Thus, no liability towards the same is being provided for in the accounts.
- 10.2.3. As recited in last year, all permanent employees (both academic and non-academic) of the Institute have been privileged with the General Provident Fund facilities with effect from 1st September, 2016 through the kind approval of the Accountant General (A & E), West Bengal to that effect. Since the Institution is being funded by the Department of Higher Education, Govt. of West Bengal since its inception in the year 1958, no provision towards Provident Fund dues has been made in the current year.

11. Provisions, Contingent Liabilities and Contingent Assets :

- 11.1. Provisions are recognized when there is a present legal or statutory obligation as a result of past events and where it is probable that there will be outflow of resources to settle a reliably estimable.
- 11.2. Contingent Liabilities are recognized only when there is a possible obligation arising from past events due to occurrence or non-occurrence of one or more uncertain future events not wholly within the control of the Society or where any present obligation cannot be measured in terms of future outflow of resources or where a reliable estimate of the obligation cannot be made. Obligations are assessed on an on going basis and only those having a largely probable outflow of resources are provided for.
- 11.3. Contingent Assets are neither recognized nor disclosed in the Financial Statements. Provisions, Contingent Liabilities and Contingent Assets are reviewed at each Balance Sheet date.

C. Notes on Accounts

1. As being detailed since last couple of years, settlement of the related issues with the Gas Authority of India Ltd. (GAIL), in connection with the net amount of Rs. 22.50 Lacs purported to be received from said Authority in the Financial Year 2015-16 towards Sponsorship amount in support of the International Conference and "3 Year" Research Programme, as per reflection in the relevant Form No. 26AS for that year, has not yet come to pass during the year.
2. Grants-in-Aids, which are capital in nature, received during the year from different authorities have been tabulated below :



Sl. No.	Received from	Memo / File No. & Date	Purposes of the Grants	Amount (Rs.)	Credited to
1.	Dept. of Higher Education, Science & Technology and Biotechnology, Govt. of WB	651 (Sanc) / EH / P / SE / 1G - 02 / 17 dt. 06.11.2017 Rooftop of the Office Building	For construction of two Class-Rooms and a Dining Hall at the	61,37,795.00	Development Fund
2.	- do - - do - - do -	905 (Sanc) / EH / P / SE / 1G - 03 / 2015 dt. 01.02.2018	For setting up of a Computer Lab-cum-Smart Classroom at the Office Premises	95,22,674.00	- do - - do -
TOTAL :				1,56,60,469.00	

- 3.1. As detailed in last year, list of several items of Fixed Assets, which are no longer in use, have been disposed of during the year as per commendation of the Disposal Committee formed for the purpose of identifying the functioning status of the relevant assets through an open Tender. The consequential effects of said disposal covering various categories of assets comprised therein are narrated herein below :
- 3.2. Treatment of depreciation on assets under Special Reserve Fund is stated under Clause No. 5.2. *supra*. Out of the corresponding value of total items of Electrical Equipment (Rs. 37,604.58) and Electrical Fittings (Rs. 6,731.10), included therein, assets worth Rs. 20,390.74 and Rs. 410.42, respectively got disposed of at Rs. 6,300/= and Rs. 100/= in that order, resulting in a Loss of Rs. 14,401.16 on disposal of these Assets.
- 3.3. Out of the total items of Electrical Fittings, forming part of the assets pertaining to Development Fund, with a Written Down Value (WDV) as on 31.03.2017 of Rs. 1,55,364.32, items with the WDV of Rs. 73,396.92 have been disposed of at Rs. 15,900/=. The resultant Loss of Rs.57,496.92 on disposal of those Assets is forming part of Expenses under Development Fund in Schedule - 'K'.
- 3.4. Costs of procurements of several Project Assets, hitherto being charged off as part of the concerned Project Expenditures are by and large not being reflected in the Project Capital Assets Fund. Accordingly, in view of appropriate accounting disclosure, the original costs of the concerned assets are brought back in the books of accounts at their respective WDV's as on 31.03.2017 of Rs. 1,51,792.41 and the balance after adjustments of corresponding sale proceeds thereof are shown under the said Fund as Loss on disposal of those non-performing Assets.
- 4.1. In the absence of any specific Grants towards payment of Fees to the Kolkata Municipal Corporation for sanctioning of the requisite Building Plan for the proposed construction of the Innovation Centre, Rs. 21,26,417/= paid towards the same along-with the corresponding Bank Charges of Rs. 9,572/= have been incurred from the quanta of Maintenance Grants received from the Deptt. of Higher Education, Govt. of West Bengal. Accordingly, the aforesaid sums have been shown as Capital work- in-progress during the year in Schedule - 'C', depicting Fixed Assets.
- 4.2. In view of the aforesaid treatment, the Unspent Balance at the year-end, as worked out in the Income & Expenditure (Grant) Account, have suitably been bifurcated between 'Unspent Balance towards Revenue Expenditures' and 'Amount utilised for Capital



- purposes' in Schedule - 'B', representing "Liabilities For Unutilised Grants", to portray a clearer picture of the actual quanta of Grants from the said Department lying unspent at the Balance Sheet date.
- 4.3. Overspent amount of Rs. 2,51,055.51 against the Grant-in Aid received from the Department of Higher Education, Science & Technology and Biotechnology, Govt. of West Bengal towards West Bengal District Scheme (WBDS) is to be recompensed by the said Authority and accordingly been considered as Grant-in-Aids Receivable and placed in Schedule-'E'.
 5. As resolved by the Governing Body at its 150th Meeting held on 05.12.2017, a couple of Savings Bank Accounts with United Bank of India, Bosepukur Rajdanga Branch for Provident Fund (A/c. No. 0955010105657) and Union Bank of India, Ballygunge Branch (A/c. No. 301202010009819), respectively have been closed during the year since they have outlived their concerned purposes for opening them.
 - 6.1. Department of Science & Technology, Govt. of West Bengal through its Memo No. 32 (Sanc.)/ST/P/S&T/12G-24/2017 dt. 19.05.2017 has sanctioned and released a Grant of Rs. 55.30 Lakhs towards payment of Senior Scholarships during the year. Accordingly, imbursements towards Scholarships, Book Grants and Teaching Aids & Accessories (Laptop for Scholars) have been incurred out of the said Grant. Besides these, the related expenditures for conducting Talent Search Tests, hitherto being met out of the Grant made available by the Deptt. of Higher Education, Govt. of West Bengal; have also been borne out of the same.
 - 6.2. Liabilities towards Scholarship, Book Grants and Best School Award totaling Rs. 36,20,168.50, as depicted in Schedule - 'F', includes Rs. 22,12,760.50, being dues payable in respect of several earlier years till 2015-16, as the same could not be discharged due to non-submission of the requisite information and documents by the concerned beneficiaries.
 7. The Society does not have share capital. Hence disclosure of Earnings per Share as per Accounting Standard 20 – Earnings per Share is not applicable to the Society.
 8. All the figures have been denominated in Indian Rupee.
 9. Schedules "A" to "N" form an integral part of the Financial Statements.
 10. The previous year's figures have been regrouped / recast / rearranged, wherever considered necessary.

Signed in terms of our report of even date.

On behalf of the Governing Body

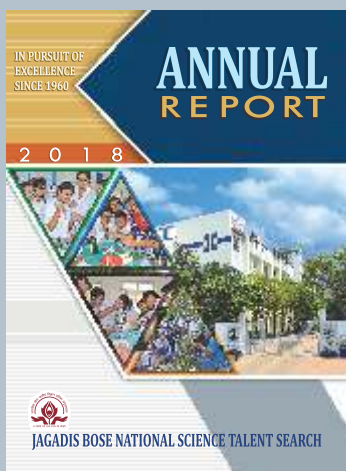
For Pan & Associates
Chartered Accountants
Firm Regn. No. : 322655E

Sd/-
Prof. (Dr.) Maitree Bhattacharyya
Director

Sd/-
Shekhar Kumar Pan
Proprietor
Membership No. 053883

KOLKATA
The 19th September, 2018





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