





Innovation in SCIETICE Pursuit for Inspired Research





he strength of innovation infrastructure of nations has gained high significance in the emerging global knowledge economics. The realization of Vision 2020 of India would call for actions and a well designed innovation infrastructure to be developed and implemented.

Currently a vast pool of talent supply is drawn more effectively by service sectors in a competitive environment. Generation of pre-competitive technologies desired from first principles in science will form the differentiating element in the knowledge based economics. In this endeavor, Human Resource and talent supply chain management practices form the most critical components. India enjoys a natural comparative advantage by virtue of demography and inherited knowledge systems. The conversion of comparative advantage into competitive strength will require carefully planned interventions. An India specific model for attracting of talents with aptitude towards careers with research and innovation as a choice is needed.

Innovation in Science Pursuit for Inspired Research (INSPIRE)

is one of the innovative programs developed by the Department of Science & Technology. The basic objective of "INSPIRE" would be to attract talent to the study of science at an early stage and help to build the required critical human resource pool for strengthening and expanding the Science & Technology system and R&D base. It is a programme with a long term foresight.

Inspire program has three schemes









Scheme for Early Attraction of Talents for Science (SEATS)

Cheme for Early Attraction of Talent (SEATS) aims to attract talented youth to study science by providing INSPIRE award of Rs 5000 to one million young learners of the age group 10-15 years for a duration of five years and arrange winter and summer camps for youth in various locations for top 1% performers in Class X Board examinations with global leaders in science to experience the joy of innovations on an annual basis through INSPIRE internship.



17 to 22



cholarship for Higher Education (SHE) aims to enhance rates of Attachment of talented youth to undertake higher education in science intensive programmes by providing scholarships and mentoring through summer attachment to performing researchers. The scheme would offer 10,000 scholarships every year @ Rs 0.80 lakh per year for undertaking Bachelor and Masters level education in natural sciences for the talented youth in the age group of 17-22 years. The main feature of the scheme is in mentorship support planned for every scholar as a part of the INSPIRE scholarship.



Assured Opportunity for Research Careers (AORC)

Research Careers (AORC)
aims to attract, attach, retain and nourish talented young scientific
Human Resource for strengthening the R&D foundation by offering doctoral INSPIRE fellowship in the age group of 22-32 years in both basic and applied sciences, including engineering and medicine. It offers assured opportunity for post doctoral researchers through contractual and tenure track positions for 5 years in both basic and applied sciences areas through an INSPIRE faculty scheme.











1. INSPIRE award

In order to seed and experience the joy of innovation, every year, 2 lakh school children in the age group of 10 to 15 years i.e. 6th to 10th standard shall be identified for the INSPIRE Award. Each INSPIRE Award will provide an investment of Rs. 5000/- per child. The scheme plans to reach at least two students per secondary school during the next five years.

2. INSPIRE internship

The selection of the students for INSPIRE Internship will be on the basis of top 1% performance in 10th Class Examinations of all school boards in the science stream and response to open advertisements and statement of purposes.



1. INSPIRE scholarship

This scheme offers total of 10,000 scholarships every year @ Rs 80,000/-per year for undertaking Bachelor and Masters level education in natural sciences possessing any one of the following criteria:

- a. Students who have consistent performance as evidenced by total marks in the top 1% level at 12th Standards at their respective State and Central Board Examinations and pursuing courses in Natural Sciences at the B.Sc. or Integrated M.Sc. level. Courses are not included other than Natural Sciences in the current scheme,in view of the focus on research in basic sciences. The average aggregate cut-off percentage of marks at the Board Examinations would be derived on the basis of top 1% criterion of each State Board.
- **b.** Students who have secured ranks in the Joint Entrance Examination of IIT (within 10,000 ranks), AIEEE (top 20,000 ranks) and those clearing CBSE-Medical and opt to study natural sciences would be eligible for the scholarship.
- c. Students admitted to Indian
 Institutes of Science Education and
 Research (IISER), National Institute of
 Science Education and Research
 (NISER), Department of Atomic EnergyCentre for Basic Sciences (DAE-CBS) at
 University of Mumbai or are KVPY



(Kishore Vaigyanik Protsahan Yojna), National Talent Search Examination (NTSE), Olympiad Medallists and Jagadish Bose National Science Talent Search (JBNSTS) scholars, opting to undertake courses in natural sciences leading to B.Sc. and M.Sc. degrees would be eligible for "SHE" scholarship.

Assured Opportunity for Research Careers

1. INSPIRE fellowship

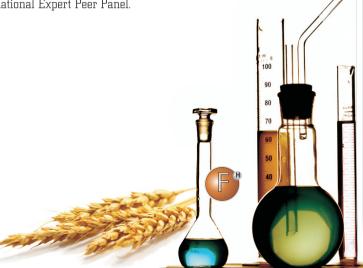
The selection of INSPIRE Fellows shall be based on the screening of applications by an Expert Panel followed by final selection by the Peers from among the eligible candidates.

This is to be drawn from 1st Rank Holders of M.Sc. in Science stream & M. Tech. in Applied stream at the universities and academic institutions.

2. INSPIRE faculty scheme

In INSPIRE Faculty Scheme, fellowships will be awarded for pursuing post-doctoral research on a competitive mode involving peer process. Selection will be based on the research proposal to be peer-reviewed by an international and national Expert Peer Panel.





"Add four to 100, multiply by eight & then add 62,000. By this rule the circumference of a circle of diameter 20,000 can be approached."

(AD. 476 - 550)

Arya-bhatta Mathematics

Sir C. V. Raman Physics

C. R. Rao Mathematics

Homi Jehangir Bhabha Nuclear Physics

Sir Jagadish Chandra Bose

Physics and Biology

S. Chandrasekhar Physics

Satyendra Nath Bose Physics

Harish Chandra Mathematics

Har Gobind Khorana Medicine & Physiology

A. P. J. Abdul Kalam Aeronautical Engg.



Srinivasa Ramanujan Mathematics

Meghnad Saha Nuclear Physics



M. K.Vainu Bappu Astronomy

Shanti Swarup Bhatnagar Mathematics

G. N. Ramachandran Physics

R Chidambaram Physics













































Vikram Sarabhai

Physics **Prafulla Chandra Ray** Chemistry

M. S. Swaminathan Agriculture

₩ Scientists

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Promoting Research and Development in Science and Technology in India

Department of Science and Technology established on 3rd May 1971, has played a catalytic role in the promotion of research and development in science and technology and has served the function of a nodal department organizing, coordinating and promoting S&T activities in the country.

The Department strives to strengthen the foundation of science and technology base of India and launch programmes with benefits in the long term horizon.