

**National Council for Science & Technology Communication
(Department of Science & Technology)**

**Innovation
&
STEM**
(Science, Technology, Engineering & Mathematics)
Demonstration

Science & Technology Communication activities are gaining momentum in the country towards shaping the way people think, behave and respond to various events in their life. Scientific temper can play an important role especially when it comes to decision making. National Council for Science & Technology Communication (NCSTC) has been working towards developing scientific temper, creating awareness in order to bridging the gap between science and society through achieving the goal of better public appreciation of science, engineering and technology.

NCSTC produces various software materials intended for mass S&T awareness, including audio-visual programmes, films, CDs, publications, etc. An increasingly large number of projects for Science fairs & melas, exhibitions, mobile science exhibitions, lecture-demonstrations, visits to S&T establishments, hands-on-science activities, and so on.

Results Framework Document 2011-12 places emphasis on *Demonstration Projects* in science & technology communication and popularization. It is now planned to strengthen the science & technology demonstration component in NCSTC. This will reinforce our mandate of promoting Technology Communication & building Technological Temper in society. With a view to enlarge the role of NCSTC in Technology Communication & Demonstration of S&T, a dedicated **Technical Advisory Committee** “*S&T Demonstration*” has been constituted to provide guidance on content, form, impact of proposals being received, generated and evaluated and related policy matters.

Monitoring, Mentoring & Reviews: The physical & financial progress and technical content is closely monitored. NCSTC and its nominated experts mentor the implementation and fulfilling the objectives with in the mandate. On-site reviews/Group Reviews/Evaluations of final outcome are invoked based on required periodicity (annual, interim/need based & end line). Satisfactory utilization of funds for the approved purposes, compliance to the objectives (original/modified) and terms & conditions of grant-in-aid, & release of next instalment of grant are interlinked.

A *Technical Advisory Committee* (TAC) is entrusted with recommendations at pan-India support to S&T communication activities & policy level changes in the area.

Composition:

Sl. No.	Name & Organization	
1	Prof. Chitra Natrajan , Dean, HBCSE Faculty, Homi Bhabha Centre for Science Education, V.N. Purav Road, Man Khurd, Mumbai - 440088	Chairperson
2	Major Gen R Sanan , Secy Gen, Institution of Engineers (India), Kolkata	Member
3	Mr. R L Nayak , Senior Conservator, National Museum, New Delhi- 110011	Member
4	Dr. A. K. Bisaria , IFS, Chief Conservator of Forests Research and Education, P.B.-5, Jhansi Raod, Gwalior, MP	Member
5	Mr. P C. Sharma , Executive Director (NCTI) and General Manager (ITPO), Indian Trade Promotion Organization, Pragati Maidan, New Delhi – 1100 01	Member
6	Prof. Saudan Singh , Director General (Medical Education and Training), U P Govt., Sixth Floor, Jawahar Bhawan, Ashok Road, Lucknow	Member
7	Dr. Prem Sagar (Scientist G, Retd.), Village - Jagapur Mishra, PO- Bairi Bisa, Distt. – S R N Bhadohi- 221303, Uttar Pradesh	Member
8	Dr. Anil Mishra , Head, Division of Cyclotron & Radio-pharmaceuticals Sciences, INMAS, DRDO, S.K. Majumdar Road, Timarpur, New Delhi	Member
10	Prof. H.S. Singh , Department of Zoology, CCS Meerut University, Meerut, Uttar Pradesh	Member
11	Dr ABP Mishra , Scientist 'C', DST	Member Secretary

Terms of Reference:

- i) To consider and recommend new proposals and communication initiatives in **Innovation and STEM (Science, Technology, Engineering & Mathematics) Demonstration**, including but not limited to Hands-on Science, Do-it-yourself Methodologies, Stationary & Mobile Exhibitions, Demos/Showcasing of proven technologies, Science Fairs-Melas-Jathas, S&T/Industrial Tours of Students, Student Motivation Activities, etc.
- ii) To deliberate upon the new initiatives in the area.
- iii) To provide guidance on review of progress of such field projects and initiatives.
- iv) To prepare detailed action plan and develop the project in its full vigor and effectiveness.
- v) To facilitate devising of effective strategies and mechanisms by NCSTC.
- vi) To act as consultative-cum-promotional mechanism for developing linkages with other resource organizations, research centres, academic institution and science based voluntary organizations.
- vii) The committee may co-opt experts as invitees to its meetings.
- viii) TAC may invite additional experts as and when require.

Tenure: 2 years, and until further orders

SUBMISSION OF PROPOSALS: Proposals in NCSTC format (http://www.dst.gov.in/scientific-programme/Guidelines_NCSTC_revised.pdf) are welcome through out the year. *A soft copy (MS word file) of the proposal should also be sent in addition to hard copies of all the prescribed documents.*

Programme -in- Charge & Coordinator:

Dr. A.B.P. Mishra
Scientist 'C' (NCSTC)
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Thrust Areas in I-STEM Demonstration

(A) Exhibitions/Melas: These events, whether stationary or mobile, serve to utilize the expertise of resource persons trained/being trained by NCSTC in various aspects of exhibitions. They may have -

Different kinds of demonstration stalls on a variety of S&T themes like environmental themes (eg. climate change), health, science behind miracles, vermincomposting, science in toys; including areas like economic zoology, economic botany, ethnobotany, ethnozoology, etc.

Puppetry – watch a show, script a dialogue (eg. 10 exchanges in 10 minutes of Galileo talks to Class 9 students), puppet making...

Student activity stalls - Solve a puzzle, mathematical games/activities, ask a good question, 10 minute design/redesign, spot the odd one, draw a future, quizzes, painting, etc.

Skits and Street plays, eg. Nukkad natak, on proposed themes as in the stalls

They should expose a large number of people to (i) S&T issues, (ii) S&T in daily life, (iii) S&T at cutting edge.

(B) Scientific Career Options: They serve to expose students to the scientific concepts at the cutting edge, India's capabilities, their career choices, and motivate students to take up a career in science.

(C) Industrial Visits: They expose a large number of students (normally 13 to 18 years of age), and teachers to technologies in their vicinity. such visits also motivate them to learn the science related to the technologies, and take up careers in S&T. Inspire students to design and redesign their environment/surroundings.
