Navi Mumbai Science Foundation

[Regn. No.: Maha /2592 / 10 / (Thane)

[Bombay Public Trust Regn. No. F/24093/Thane]

B-51, Gitanjali, Plot No. 52, Sector – 17, Vashi,
Navi Mumbai – 400703. (Mob. 93241 68510)

Chairman: Dr. A. M. Bhagwat (Mob. 93241 68510)

Secretary: Dr. A.K. Rajarajan (Mob. 99206 45990)

Convener: Dr. Jayant Joshi (Mob. 98694 65169)

Shree Gujarati Samaj

Trust Regn. No: F/968 Thane (1983)

Gujarat Bhavan Plot 61 A/B Sector-15, Vashi,
Navi Mumbai-400703
Phones: 27800 134, 2780013
Hon. President: Shri Hasmukhbhai Kanani
Exe. President: Shri Kaushikbhai Patel
Gen. Secretary: Shri Maheshbhai Katharia

<u>Science Utsav – 2025</u>

Date: 05 / 11 / 2024.

(In Association With "Pillai College of Engineering, New Panvel)

Teachers' Conference (TC-25) & Exhibition of Science Experiments – A Two-Day Event.

Dear Sir/Madam,

Navi Mumbai Science Foundation (NMSF) holds its Science Utsav every year in the month of February. This academic year's (2024-25) **"Science Utsav"** will be held accordingly on Feb. 8 & 9, 2025. The two-day event will consist of **Teachers' Conference (TC-25) on Day-one & "Exhibition of Science Experiments" by students on Day-two.**

NMSF had the benefit of interaction with your school in the past and therefore, we are delighted to extend this personal invitation to you and your school/Jr. College for the event and look forward to enthusiastic participation from both, teachers and students alike.

The main theme of TC-25 is **"Artificial Intelligence in School Education"** and its concept note is attached for reference. It is requested that teachers from your school submit one or more paper(s)/essay(s) on the above theme, individually or jointly, <u>based on their personal experiences.</u> Teachers will have an opportunity to present their paper(s) during the conference. **The proceedings of the conference will be available on NMSF website. <u>All the accepted papers will receive a cash incentive.</u>** Similarly, a good participation from students of std. VI – IX is encouraged *in the "Exhibition of Science Experiments"* on **Day-two.**

The last date for receipt of "papers for Teachers' Conference" is December 15, 2024, and for "**write-ups on experiments" it is Sat. Jan. 15, 2025** – along with **respective "Google Registration Forms".** The full paper(s) / write up(s) on experiments(s) may be sent by **"E-mail"** to:

nmsfscienceutsav@gmail.com OR Dr. J. V. Joshi: jvjoshi2002@yahoo.co.in/jvjoshi2002@gmail.com/

Other contact persons: Dr. A. K. Rajarajan, misraju@gmail.com (Mob.: 99206 45990), and
Dr. A. M. Bhagwat, ambhagwat@gmail.com (Mob.: 93241 68510).

<u>**Registration fee for participation is nominal,**</u> **& has been fixed at i) Rs. 500/-** per participant **for Teachers' Conference and ii) Rs. 200/-** per team of two students for **the Exhibition of Science Experiments.**

Please visit NMSF's website www.navimumbaisciencefoundation.org for the two Google registration forms.

<u>Other guidelines</u> for participation are attached.

We look forward to active participation from your school.

With Best Regards,

Yours' Sincerely,

Dr. Jayant Joshi,
Convener, Science Utsav-2025.

Attachment: 1. A concept note on the theme topic of Teachers' Conference-2025.
2. Guidelines for students for participation in Exhibition of Sc Experiments-2025.

Theme for Teachers' Conference-2025
"Artificial Intelligence (AI) in School Education"

CONCEPT NOTE

Leveraging AI for Transformative Learning:
Empowering Educators and Students in the 21st Century.

Background:

Artificial Intelligence (AI) is transforming multiple industries, including education. As educators navigate an increasingly digital landscape, there is an urgent need to understand and leverage AI to enhance teaching and learning outcomes. AI tools can assist teachers in personalizing instructions, streamlining administrative tasks, and providing students with tailored learning experiences. However, the integration of AI in education also raises challenges, including ethical concerns, the digital divide, and the need for professional development.

Objectives:

The conference aims to bring together teachers, educational leaders, researchers, and policymakers to explore the impact of AI in education. Key objectives include:

1. Discussing how AI can support personalized learning and help teachers address diverse student needs.

2. Integrating AI-driven tools into everyday classroom activities for enhancing skills of planning, monitoring and evaluating leading towards independent and effective learners.

3. Identifying potential challenges and ethical considerations in using AI in education.
4. Highlighting the role of professional development in helping teachers adapt to AI technologies.
5. Promoting collaborative research and knowledge sharing to maximize AI's potential in education.

Themes:

The conference will explore a range of themes related to AI in education, including but not limited to:

1. **AI-Powered Personalized Learning and Metacognitive Development:** How AI can tailor instruction to individual learning styles, speeds, and needs while promoting metacognitive strategies such as self-reflection and goal setting.

2. **AI Tools for Teachers:** Streamlining lesson planning, grading, and administrative tasks through AI solutions.

3. **Ethics in AI for Education:** Addressing concerns like privacy, data security, and potential biases in AI algorithms.

4. **Bridging the Digital Divide:** Ensuring equitable access to AI tools and technologies for all students.

5. **Professional Development for AI Integration:** Strategies for equipping educators with the skills needed to incorporate AI into their teaching.

Expected Outcomes:

1. **Increased Awareness:** Attendees will gain insights into the latest AI tools and their potential to enhance education.
2. **Actionable Strategies:** Teachers will learn how to incorporate AI and metacognitive practices into their classrooms to improve student engagement and outcomes.
3. **Collaborative Networks:** Participants will form connections with peers, researchers, and industry experts, fostering ongoing collaboration to share ideas for integrating metacognition into education.
4. **Policy Recommendations:** Discussions will inform the development of guidelines and policies for safe and effective AI implementation in schools with an emphasis on supporting metacognitive growth.

Format:

The conference will include keynote speeches from AI and education experts, interactive workshops, and case studies showcasing successful AI integration in schools. There will also be opportunities for attendees to engage in hands-on sessions with AI-powered educational tools.

Target Audience:

- Teachers and educators
- School administrators and policymakers
- EdTech developers
- Researchers and academicians in education technology
- Teacher training institutes

Conclusion:

This conference is a vital platform for exploring how AI can enhance the educational experience for both teachers and students. By empowering educators with knowledge and tools, we can ensure that AI is integrated in ways that support equity, creativity, and student success.

Finally, it may be noted that those papers/essays, which are supported by some data /statistics/ feedback (anyone is sufficient), will get preference over other presentations.

"Guidance note for the Authors for submission of Papers"

Potential authors are welcome to send papers related to the major theme, even if these do not directly correspond to one of the sub-themes.

Process of the conference: The one-day conference consists of a few invited talks by experts on this subject, and mainly, oral and poster presentations of "contributions by participating teachers". The conference is scheduled for **Saturday, 8th February 2025,** at Shree Gujarat Bhavan, Sect-15/16, Vashi. A detailed program will be announced in due course.

Submission of contributions: Essays/Papers, relevant to the topic and not exceeding 1000 words, are invited. These can be in **English / Hindi / Marathi.** These could be submitted, preferably by email to <nmsfscienceutsav@gmail.com>. The paper should have a clear title, list of authors, affiliation, abstract, body of the text and references (if any). These will be moderated by experts and peers. Acceptances and feedback will be communicated to the authors. The accepted contributions that are presented by the authors in the conference will be brought out as conference proceedings and will be posted on NMSF website for international access.

Last date for receipt of papers, along with the **google registration form** (one for each participant) is **December 15, 2024. Every participant must individually register even though they are co-authors of same paper. For other details, please see the circular.**

Registration for Science Utsav-2025

Registration fee:
(**Rs. 500/- per participant** for "Teachers' Conference" &
Rs. 200/- per team for Exhibition of Science experiments)

Mode of payment

1. **For Online Transfer:**
Bank's Name: Thane Janata Sahakari Bank Ltd.
Address: Vashi Branch, Plot No. 51, Sec. 17, Vashi, Navi Mumbai – 400703.
Name of A/C Holder: Navi Mumbai Science Foundation.
SB A/C No: 012110100002585.   **IFSC Code:** TJSB0000012.

2. **For payment by Cheque:**
    Bank's Name: Thane Janata Sahakari Bank Ltd.

Website: http://www.navimumbaisciencefoundation.org

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<u>**Exhibition of Science experiments**</u> **(models alone are discouraged)**

<u>Guidelines for students & teacher-guides</u>

(Reporting time: 08. 30 am on Sunday, 9th Feb. 2025, at Shree Gujarat Samaj, Sec. 15, Vashi)

Introduction: The students can display here their creativity and innovative spirit by exhibiting any demonstrative experiment based on any one of the scientific principles/phenomena encountered during school studies. **The experiment should involve validation, explanation, application of scientific principle and/or demonstrate its limitation.** The emphasis should be on simplicity of demonstration, such that it could even be safely replicated at home using household items.

<u>The rules of the scheme are as under:</u>

1. The number of participants **shall not be more than two per experiment** and each of them should have a clearly defined and adequate role in the presentation. The rules of the scheme are as under:

2. A student can be part of **a maximum of two demo experiments** only.

3. Students currently in Std. VI, VII, VIII & IX only are eligible to take part in the event. They can choose any topic in Physics, Chemistry, Biology or Mathematics. **Up to 5 teams per School are normally permitted. A school may set up more experiments, <u>subject to availability of space</u> & with prior permission.**

3A. Each school will also send an accompanying teacher to take care of the safety of their students. ← ←.

4. The participants are required to submit a write-up on the experiment (not exceeding 200 words). The writeup should have a modular structure i. e., a) Aim, / Hypothesis, b) Apparatus, c) Construction of experimental setup, d) Method of measurement, e) Data collection, f) Discussion, h) Inference, / Conclusion.

5. **Experiments identifying their connection to a particular chapter of a particular standard's science text book (including the syllabus, i. e. CBSE/ICSE/CIE etc.), <u>will receive topmost priority</u>.**

6. Send your writeup along with the Google registration form.

Registration fee: Rs. 200/- per team/ experiment.
Last date for submission of writeup & registration is Sat. Jan. 15, 2025.

7. Entries selected by a team of experts will only participate in the exhibition.

8. The experiment should be safe and easily portable. Only a table-top space (4 feet by 2 feet) will be provided for its display. **All the gadgets/equipment** needed for the experiment shall be brought by the participants. **No mains supply will be provided**. **Experiments requiring electric power will be based on the use of a maximum of 12-Volt power supply only, arranged by the experimenters themselves.**

9. **Exhibits selected by the judges will receive cash prizes. All the participants will receive certificates of participation.**

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