Bharatiya Vidya Bhavan's
Muktangan Exploratory Science Centre

ANNUAL REPORT

2025-26

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Bharatiya Vidya Bhavan's
Muktangan Exploratory Science Centre

BHARATIYA VIDYA BHAVAN'S

MUKTANGAN
EXPLORATORY
SCIENCE CENTRE

EXPLORE INNOVATE INVENT

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Introduction & Legacy

Igniting Minds, Fostering Innovation Since 1992

MESC is the brain child of visionary Late Dr. V.G. Bhide, a pioneering physicist , former Vice Chancellor of Pune University, and an eminent educationist.

Driven by his belief that science is best learned through active discovery rather than passive memorisation, MESC has spent over three decades spearheading a paradigm shift towards experiential STEM (Science, Technology, Engineering, and Mathematics) education.

Our core philosophy bridges the gap between textbook theory and practical application, nurturing scientific temperament and curiosity among students, educators, and the community at large.



Decades of Excellence & Recognition

MESC's dedication to popularising science has earned it widespread recognition and prestigious national accolades, including:

National Award for Outstanding Efforts in S&T Popularisation among Children (2014):


भारत सरकार
विज्ञान और प्रौद्योगिकी विभाग
राष्ट्रीय विज्ञान एवं प्रौद्योगिकी संचार परिषद्

GOVERNMENT OF INDIA
DEPARTMENT OF SCIENCE & TECHNOLOGY
NATIONAL COUNCIL FOR SCIENCE & TECHNOLOGY COMMUNICATION

वर्ष 2014 के लिए एक लाख रुपए का वर्ष 2014 के लिए
राष्ट्रीय पुरस्कार
भारतीय विद्या भवन मुक्तांगण विज्ञानशोधिका
पुणे
को
अपनी पहलों और कार्यकलापों के माध्यम से विज्ञान और प्रौद्योगिकी शिक्षा को लोकप्रिय बनाने में उनके उत्कृष्ट योगदान के लिए

PRESENTS
NATIONAL AWARD
of Rupees One Lakh for Outstanding Efforts in Science & Technology Popularization among Children for 2014
to
Bharatiya Vidya Bhavan's Muktangan Exploratory Science Centre Pune
For outstanding contributions in popularizing science and technology education through its initiatives and activities

रविप्रोसंप NCSTC

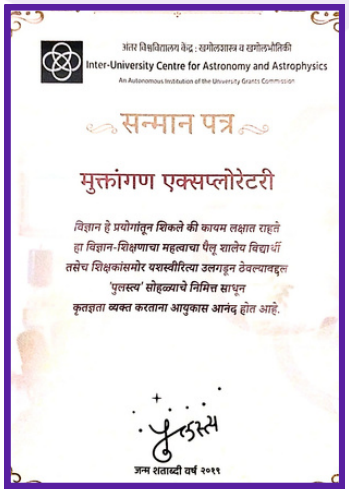
राष्ट्रीय विज्ञान दिवस के उपलक्ष्य में आयोजित समारोह के अवसर पर 2 मार्च, 2015 को प्रदान किया जाता है।

Given on 2nd March, 2015 on the occasion of a function organised to celebrate the National Science Day.

प्रो. आशुतोष शर्मा / Prof. Ashutosh Sharma
सचिव, भारत सरकार / Secretary to the Government of India
विज्ञान और प्रौद्योगिकी विभाग / Department of Science & Technology

Awarded by the National Council for Science & Technology Communication (NCSTC), Department of Science and Technology, Government of India.

IUCAA Award


भारत विश्वविद्यालय केंद्र : खगोलशास्त्र व खगोलभौतिकी
Inter-University Centre for Astronomy and Astrophysics
An Autonomous Institution of the University Grants Commission

सन्मान पत्र

मुक्तांगण एक्सप्लोरेटरी

विज्ञान हे प्रयोगांतून शिकले की कायम लक्षात राहते
हा विज्ञान-शिक्षणाचा महत्त्वाचा पैलू शालेय विद्यार्थी
तसेच शिक्षकांसमोर यशस्वीरित्या उलगडून ठेवल्याबद्दल
'पुलस्त्य' सोहळ्याचे निमित्त साधून
कृतज्ञता व्यक्त करताना आयुकास आनंद होत आहे.

जन्म शताब्दी वर्ष २०२१

Recognition for Muktangan Exploratory's contribution to science education and outreach.

Indian Merchants' Chamber (IMC) Award (2006):


INDIAN MERCHANTS' CHAMBER
PLATINUM JUBILEE ENDOWMENT TRUST
AWARD 2006

CITATION

Muktangan Exploratory Science Center
Pune

WE ADMIRE you for your outstanding contribution towards popularizing science education and creating a scientific temperament by launching students on a path of exploration and on an adventure of discovery.

WE CONGRATULATE you for the novel initiative in the field of science education through nurturing and nourishing students creativity and innovativeness.

WE SALUTE you for your efforts in helping students to learn how to learn, learn how to do and learn how to live.

WE RESPECT you as an outstanding institution engaged in synergising exploration and education and learning and discovery.

WE COMMEND you for rendering yeoman service by helping children to discover for themselves basic concepts in science and initiating them into process of developing applications of the basic concepts, training them to observe keenly and closely, to excite their curiosity, to provoke them to ask penetrating questions, to communicate to them a sense of excitement in doing science.

Justice Dharmadhikari
Chairman
Committee of Judges

Pravinchandra V Gandhi
Chairman
IMC Platinum Jubilee Endowment Trust

Niraj Bajaj
President
Indian Merchants' Chamber

Recognised in Mumbai for significant contributions to science education and popularisation.

State-of-the-Art Experimental Laboratories

Moving away from formal, rigid learning environments, MESC encourages children to experience science first-hand. The Centre features seven well-equipped, state-of-the-art laboratories designed specifically for school students to explore, experiment, invent, and innovate:

Physics & Chemistry Labs:

Spaces where abstract equations and chemical reactions are transformed into visible, tangible phenomena.





Biology & Earth Science Labs:

Interactive environments dedicated to exploring life sciences, ecology, and geological phenomena.

Electronics & Computer Labs:

Modern technology spaces focusing on circuit building, coding, hardware interfaces, and early computational thinking.





Mathematics Lab:

A unique space where abstract geometric and algebraic concepts are made visual and intuitive through models and puzzles.

The Innovation Hub: Engineering 21st-Century Skills

A major component of MESC is its Innovation Hub, established with support from the National Council of Science Museums (NCSM), Kolkata, Ministry of Culture, Government of India.
The Hub promotes a vibrant "Do-It-Yourself" (DIY) culture, equipping students with essential life skills, design-thinking abilities, and technical problem-solving skills.

Advanced Fabrication & Maker Spaces

Our Innovation Hub features specialised clubs, including the Robotics, Computer, STEM, and Young Entrepreneur Clubs, giving students access to:

Specialised Clubs and Interest Groups

Digital Fabrication Lab:

Equips young innovators to take an idea from problem identification to reality using rapid-prototyping CNC machines, 3D printers, laser cutters, and vinyl printers.

Mechanical & Electronics Workstations:

Fully functional workshop spaces where students handle manufacturing tools, practise woodwork, build circuits, and develop real-world prototypes.

Student-led Solutions:

The Hub has supported the development of student prototypes addressing community issues, such as Onisilo, a system designed to minimise onion crop loss during farm storage, and Sileo, an innovative device aimed at reducing urban noise pollution caused by excessive honking.







A Broad Spectrum of Science Initiatives

To complement our year-round core programmes, MESC hosts a range of engaging science activities throughout the academic calendar:

1. CORE ACADEMIC SUPPORT:

Science Through Experiments programmes for Standards 5 to 10, along with specialised guidance for the prestigious Homi Bhabha Young Scientist Examination.

2. IMMERSIVE CAMPS & WORKSHOPS:

Popular Summer and Winter Creativity Workshops and "A Day with the Exploratory" school visits.

3. COMMUNITY OUTREACH:

Inter-school project competitions, science quizzes, and the Sci-Talk lecture series.

4. EMERGING TECHNOLOGY & TEACHER TRAINING:

Lecture series on future-ready technologies such as AI, advanced robotics, and sustainability, alongside NEP 2020-aligned capacity-building workshops designed to train school teachers in experiential pedagogy.

Impact at a Glance (2025-26)

4,000+	50+	100,000+
Students Engaged	Schools Participated	Cumulative Outreach Since Inception

Our Legacy and Impact



From a visionary initiative in 1992 to a thriving ecosystem of learning, Muktangan Exploratory continues to expand its impact. Every year, over 4,000 students from more than 50 schools actively participate in our core programmes and workshops. Since its inception, the Centre has reached, inspired, and engaged more than 100,000 young minds, contributing to the development of the next generation of thinkers, scientists, and innovators.

The Birth Centenary Celebrations of Our Founder Dr. V. G. Bhide



(1925–2006)

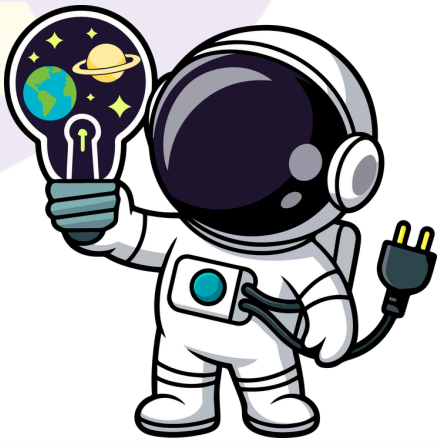
The academic year 2025–26 held special significance for the Exploratory, marking the Birth Centenary Year of our beloved founder, Late Prof. V. G. Bhide.

To honour his enduring legacy and lifelong commitment to a scientifically literate India, the Centre dedicated the year to advancing his vision. Staying true to Dr. V. G. Bhide's philosophy of "learning science by doing," the Centre organised a series of engaging, competitive, and educational programmes for school students.

The events commenced on July 21, 2025, and culminated on August 8, 2025, engaging hundreds of young minds through experiential science activities.

> *Exploratory is a place where children can explore and experiment, design and fabricate, invent and innovate. Exploratory launches students on an unending path of Exploration.*

– Late Dr. V. G. Bhide (Founder)



THE CENTENARY CELEBRATIONS WERE MARKED WITH A SERIES OF MEANINGFUL EVENTS AND ACTIVITIES

EVENT PERIOD:
JULY 2025 TO AUGUST 2025

Centenary Year Celebration Events





July 21 & 22, 2025 — Experiential Learning & School Visits:

The celebrations began with organised, slot-wise school visits designed to provide students with hands-on exposure to laboratory environments and real-world science applications.

The visits were offered entirely free of charge. Students witnessed live science demonstrations and toured the advanced Exhibition Hall and specialised laboratories, encouraging curiosity and scientific inquiry.



July 23, 2025 — Inter-School Poster Making Competition:

To blend artistic creativity with scientific thought, this competition invited students to visually represent important contemporary themes.

Participation Categories & Themes:

- Junior Group (Standards 5–7): Climate Change, Health is Wealth, and Water: The Elixir of Life.
- Senior Group (Standards 8–10): Future with AI, Smart City, and Biodiversity Under Threat.

The event received highly imaginative submissions, demonstrating students' awareness of environmental preservation, public health, and emerging technological developments.



July 24, 2025 —
Inter-School Science Pentathlon:

Designed as a multi-dimensional science competition, the Science Pentathlon tested students across several areas of logic, innovation, and practical skill.
The five rounds were:

1. Mathematical Puzzles Round: Testing logical and numerical reasoning.
2. Experiment Round: Assessing hands-on laboratory and observation skills.
3. DIY (Do-It-Yourself) Round: Evaluating engineering skills and resourcefulness.
4. Creativity Round: Challenging students to solve open-ended scientific problems in innovative ways.
5. Visual Round: Testing data interpretation and pattern recognition.





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July 25, 2025 —
Inter-School Science Quiz:

This competition tested the theoretical knowledge and quick-thinking abilities of participating school teams. The competition began with a written round to identify the top-performing teams, followed by a Mega Finale on stage.





The Grand Culmination & Prize Distribution

August 8, 2025

The birth centenary celebrations reached its official culmination on the evening of August 8, 2025.

Keynote Lecture on "AI & Future Career":

Delivered by Dr. Bhooshan Kelkar(TEDx speaker and IBM Master Inventor). Dr. Kelkar provided valuable, forward looking insights into how Artificial intelligence is transforming global industries and mapped out how students can prepare for future tech-driven career landscapes.

Biographical Tribute to Dr. V. G. Bhide:

A heartfelt tribute to Dr. V G. Bhide , highlighting his journey, vision and enduring contributions to Science education and society was given by Dr. Pandit Vidyasagar (Former Vice Chancellor of Nanded University).

Prize Distribution Ceremony:

Winners of all centenary competitions were felicitated with trophies, certificates, medals, and cash prizes. Special recognition was given to outstanding participants, mentor teachers, and supporting schools.

Dr. V. G. Bhide Birth Centenary Celebrations reflected the legacy of its founder by bridging the gap between textbook science and real-world exploration. By offering free access to modern laboratories, organising diverse competitive platforms, and bringing technology experts into the programme, Muktangan Exploratory Science Centre reinforced its role as a centre for non-formal science education in the region.

The participation of local schools contributed to the success of the celebrations and provided students with opportunities to engage with science through exploration and experimentation.





Science Centre Programmes for the Year 2025–26

ACADEMIC PERFORMANCE & FLAGSHIP PROGRAMMES

A.Y. 2025–26

Our flagship long-duration courses represent a core component of Muktangan Exploratory's academic mission. Unlike short-term exposure programmes, these sustained programmes provide students with progressive, hands-on engagement across diverse scientific disciplines.

By engaging students directly in laboratory environments, these programmes encourage them to move from theoretical learning towards active investigation and experimentation.

During the 2025–26 academic year, which commemorated the Birth Centenary of our founder, Prof. V. G. Bhide, these programmes received strong participation.



1. Regular Course: "Science Through Experiments" June 2025 – February 2026

The Regular Course – "Science Through Experiments" is a core component of Muktangan Exploratory Science Centre's academic offerings. It is a year-long, activity-based foundation programme designed to strengthen fundamental concepts and develop scientific inquiry skills among students.

During the 2025–26 academic year, 953 students participated in the programme. A significant cohort of underprivileged students was also integrated into the programme this year.

2. Competitive Track: Homi Bhabha Young Scientist Examination Guidance June 2025 – December 2025

Muktangan Exploratory Science Centre conducted its specialised Homi Bhabha Young Scientist Examination Guidance programme during the 2025–26 academic year.

The Centre provided theory and practical guidance to approximately 215 students, supporting them in developing conceptual clarity and analytical skills required for the competitive examination.



3. Early Learners Track: Creative Science Programme
July 2025 – December 2025

Recognising that a strong scientific foundation begins with early cognitive development, Muktangan Exploratory Science Centre conducted its specialised Creative Science Programme during the 2025–26 academic year.
Approximately 30 students from Grades 3 and 4 enrolled in the programme and took their first guided steps into active scientific discovery. The curriculum focused on fun and creative science activities without the constraints of formal classroom learning.







4. Advanced Research Module: Summer Science Workshop
4th - 9th May 2025.

BVB's Muktangan Exploratory successfully conducted a six-day "Summer Science Workshop".
This workshop was designed specifically for students who demonstrated exceptional potential in the "Science Talent Search" (STS) Examination conducted by the Centre across various schools.
Students spent significant time in various laboratories, conducting experiments that provided deeper insights into complex scientific concepts. They also interacted with eminent scientists on science and technology topics.
75 students attended this programme.







Short-Duration & Vacation Workshops

Complementing our year-long academic programmes, Muktangan Exploratory Science Centre curated a range of short-duration modules and holiday workshops during the 2025–26 period. These targeted programmes were designed to maximise engagement during school breaks by combining hands-on experimentation, conceptual learning, and creative exploration.



A Specialised STEM Workshops



Designed to make complex subjects approachable, these short, hands-on workshops combined experimentation with creative conceptual learning. The specialised modules conducted this year included:

- **The Water Lab & Chem-Magica:** Introducing students to environmental testing, fluid dynamics, and chemical transformations.
- **World Under the Microscope:** Exploring microbiology, cell structures, and observational techniques.
- **Geo-Science:** Exploring Earth sciences, rock formations, and planetary structures.
- **Wonderful Physics & Creative Electronics:** Transforming abstract textbook concepts into interactive circuit-building and mechanical activities.
- **Fun with Science & Origami:** Combining mathematical geometry, structural engineering, and hands-on creative activities.



B Strategic Social Inclusion Initiatives



In alignment with our commitment to making quality education accessible, the Centre partnered with the **Yardi Foundation** to host a specialised Social Inclusion Science Camp.

This initiative provided **100 underprivileged students** with free access to the Centre's laboratory infrastructure. Through customised experiential sessions, students were given opportunities to conduct experiments and engage in scientific exploration.

C Advanced Exam Readiness & Practical Training

To support students preparing for academic and competitive milestones, the Centre conducted intensive laboratory training programmes focused on practical skills and procedural understanding:

- **10th Standard Practical Training:** Engaging 84 students in curriculum-aligned sessions designed to build confidence ahead of their formal board practical examinations.
- **Homi Bhabha Practical Sessions:** Providing 120 students with specialised laboratory training aligned with the practical and viva-voce requirements of the Homi Bhabha Young Scientist Examination.







D Seasonal & Holiday Modules

The Centre also utilised school vacations to introduce experiential holiday programmes:

Diwali Science Workshop (November 2025): A festive workshop featuring science demonstrations and explorations of the physics of everyday phenomena.

Joy of Science Workshop (December 2025): A year-end holiday programme focusing on the intersection of science and creativity, where students explored mechanical and aerodynamic concepts through hands-on toy-making and design challenges.









Outreach & Community Engagement

Extending its impact beyond the traditional classroom, Muktangan Exploratory Science Centre conducted a range of community-focused initiatives during the 2025–26 period. These programmes were designed to broaden access to STEM education, encourage public curiosity, and bring scientific exploration into the wider community.



The Sunday Science Studio

As part of its curriculum innovation initiatives, the Centre launched the Sunday Science Studio, a weekend STEM initiative designed to promote active exploration. The programme featured 15+ diverse activities distributed across the Centre's specialised laboratories. It enabled students and science enthusiasts to engage in self-paced, experiential learning modules outside regular school hours.



Targeted Institutional Outreach

The Centre conducted customised science literacy programmes for educational and social organisations, including:

- **NGO CYDA Collaboration:** A dedicated outreach programme that provided specialised experiential learning opportunities to 80 students from Pimple Gurav School, introducing them to core laboratory experiments.
- **Akshar Nandan School & Span International:** Institutional collaborations aimed at complementing school pedagogy through access to laboratory infrastructure and resources.



Public Engagement: Pune Balotsav

Muktangan Exploratory extended its outreach to the wider public through participation in Pune Balotsav, the annual fair organised by the Pune Municipal Corporation (PMC). The Centre's pavilion featured interactive science-toy exhibits demonstrating physical and mechanical principles through simple, everyday play. The exhibit attracted visitors including children, parents, and educators.



The 'Sci-Talk' Lecture Series

To foster scientific thinking and create awareness about contemporary scientific developments, the Centre organised its flagship 'Sci-Talk' Series.

Astronomy & Space Sciences: Exploring cosmic discoveries, space exploration, and observational astronomy.

Climate Change & Sustainability: Exploring climate science, ecological changes, and sustainable engineering.

Emerging STEM Frontiers: Highlighting technological developments and encouraging scientific thinking across age groups.

Inter-School Young Explorer Project Competition & Exhibition

January 2026

- In mid-January 2026, Muktangan Exploratory hosted its annual Inter-School Young Explorer Project Competition, showcasing 82 student projects in the building's basement exhibition space. The two-day event attracted students, teachers, and parents and was divided into Junior and Senior categories.

- The Junior Group competition (Standards 5–7) began on January 16 with an inauguration by Prof. Nitin Karmalkar, Former Vice-Chancellor of Savitribai Phule Pune University, and featured 36 student displays. Later that day, Ms. Dharma Ghorpade, Learning and Development APAC Leader at Dassault Systèmes, served as the Chief Guest for the prize distribution ceremony.

- The programme continued on January 17 with the Senior Group competition (Standards 8–10), where 46 projects were presented. This session was inaugurated by Ms. Roshni Acharya, CSR Specialist – India, Sandvik Coromant, and concluded with a prize distribution ceremony led by Chief Guest Mr. Pankaj Mulye, Managing Director, Poona Couplings Pvt. Ltd.

Inter-School Young Explorer Project Competition – Photos









Teacher Training Programmes

Throughout the year, Muktangan Exploratory organised a series of Teacher Training Programmes (ITPs) aimed at empowering educators with modern pedagogical tools and strategies.



A key initiative was a specialised programme focused on the National Education Policy (NEP) 2020, which brought together 65 teachers from schools across Pune. The programme featured lecture sessions by Dr. Vivek Kale on the 'Practical Implementation of NEP, along with guidance from Dr. Govind Kulkarni and hands-on laboratory sessions demonstrating key NEP themes.



In addition to the NEP training, Muktangan Exploratory conducted a session for 75 teachers from NGOs including Yojak and the Janseva Foundation. The session focused on digital assessment tools and science laboratory activities using specialised science kits developed by the Centre.





Another workshop trained 40 teachers in the use of the Foldscope, an innovative paper microscope. Participants assembled the device and used it to observe specimens on slides they prepared themselves, further supporting the Centre's commitment to practical and experiential learning.



National Science Day Celebration

February 26–28, 2026

Muktangan Exploratory hosted a three-day National Science Day celebration from February 26 to 28, 2026, attracting students and members of the general public.

- Day 1 began with a Science Drawing Contest and Science Quiz. Students explored themes such as Space Exploration and Science & Technology for the Betterment of Society through the drawing competition. The quiz included segments such as Pictionary, Reasoning, and Cutting-Edge Science & Technology.

- Day 2 focused on astronomy through a specialised seminar titled 'Hands-On Astronomy, organised jointly with the British Council. The event featured three age-appropriate interactive sessions led by Ms. Jen Gupta, Professor of Astronomy at the University of Portsmouth, UK.

- The celebration culminated on Day 3 with a Science Carnival. From 10:00 AM to 4:00 PM, students and members of the public participated in interactive science activities and viewed science and technology projects developed at the Centre.

- The programme concluded with a guest lecture on 'Atomic Physics to Quantum Physics' by Smt. Leena Mehendale (Retd. IAS), Chairperson of Bharatiya Vidya Bhavan, followed by a prize distribution ceremony recognising participants and winners of the three-day festival.











Zero Shadow Day Celebration

May 12, 2026

Zero Shadow Day is a unique astronomical phenomenon when the Sun is directly overhead, causing vertical objects to cast almost no shadow at local noon. It helps us understand the Earth's tilt, its revolution around the Sun, and the changing position of the Sun in the sky.

Muktangan Exploratory celebrated the Zero Shadow Day On 12th May 2026 where the students observed the phenomenon and took part in practical demonstration of Zero shadow as an outdoor activity.

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Lab Set-Up Project

In early 2026, Muktangan Exploratory successfully completed a collaborative project with the ThinkSharp Foundation to establish a functional STEM and basic Robotics Lab.

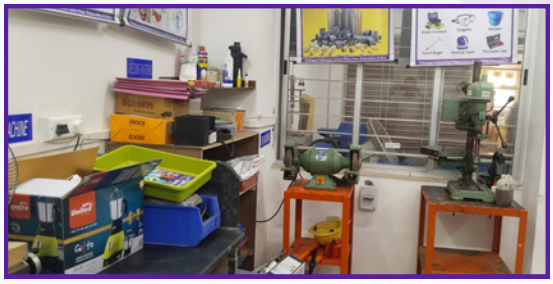
Drawing on over 30 years of experience in experiential education, the MESC team transformed an existing school room into a space for inquiry-based learning.

To support the long-term sustainability of the project, MESC facilitators conducted a Teacher Training Programme (TTP) following the installation. School educators were trained in activity-based pedagogy, safe equipment handling, and strategies for integrating the new kits into the academic curriculum.











Science Centre: 2025–26 Year in Review

The 2025–26 academic year reinforced Muktangan Exploratory Science Centre's role in promoting scientific temper within the community. By combining traditional laboratory work with emerging fields such as Artificial Intelligence (AI) and Astronomy, the Centre continues to provide students with opportunities to develop scientific curiosity, practical skills, and critical-thinking abilities.

INNOVATION HUB PROGRAMMES 2025-26

The Innovation Hub at Muktangan Exploratory Science Centre continues to serve as a centre for digital fabrication, design thinking, and practical life skills. By combining technologies such as 3D printing and laser cutting with foundational vocational skills, the Hub provides students with opportunities to develop problem-solving abilities and technical literacy. The 2025-26 academic year saw an expansion of both sponsored social inclusion programmes and public-facing technical workshops.

1 Long-Duration Programmes

Sponsored Corporate Social Responsibility Initiatives

These programmes focused on providing sustained, subsidised technical education to underprivileged student communities through partnerships with corporate philanthropies.



STEM Design Skill Development Programme

- Sponsor: La Fondation Dassault Systèmes
- Format & Scope: 15 comprehensive sessions of 2 hours each.
- Target Demographics & Impact: Fully sponsored for 100 underprivileged girl students from Nu. Ma. Vi. Girls High School, Ahilyadevi Girls High School, and Right to Education (RTE) beneficiaries from BVB's Sulochana Natu Vidya Mandir and Paranjape Vidya Mandir.
- Core Curriculum: The programme developed core competencies in digital drafting and rapid prototyping. Students received hands-on exposure to professional 2D and 3D design software and translated their virtual concepts into physical models using fabrication machinery, including laser cutters, 3D printers, and vinyl cutters. All qualifying participants received course completion certificates.





Introduction to Basic Architecture and Interior Design Programme

- **Sponsor:** La Fondation Dassault Systèmes
- Format & Scope: 15 specialised sessions of 2 hours each.
- **Target Demographics & Impact:** 50 underprivileged girl students from P.E.S. Modern High School (N.C.L.) and various Pune Municipal Corporation (PMC) schools.
- **Core Curriculum:** An introductory pathway into spatial design, architectural principles, and interior aesthetics. Using design software, students learned the fundamentals of virtual space allocation, including flooring layouts, staircase design, furniture placement, and other design elements, culminating in 3D rendering projects.

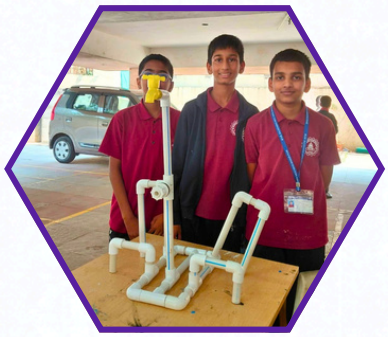


Hackathon – Skills + Creativity Competition

- **Sponsor:** Dassault Systèmes
- **Format:** A multi-phase competitive-cum-exhibition platform designed as a capstone showcase for graduates of the STEM Design and Architecture programmes.
- Featured 50 student competitors, culminating in a public exhibition of six innovative, student-fabricated projects.

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2 Programmes for Paid Participants



DesignTech Club

- **Format & Cohort:** 12 immersive sessions of 2 hours each, conducted with a specialised cohort of 6 participants to ensure maximum access to tools.
- **Curriculum:** A multidisciplinary fabrication programme. Students developed skills in computer-aided digital design software and operated fabrication-lab hardware such as 3D printers and laser cutters, alongside traditional vocational skills:
- Basic Carpentry: Linear measurement, wood joinery, and tool safety.
- Plumbing & Electrical: Circuit mapping, pipe fittings, and basic home maintenance.
- Bicycle Dissection: Mechanical disassembly and understanding of mechanical drive systems.
- **Outcome:** Participants successfully developed ideas, prepared budgets, and fabricated functional mechanical articles using a range of machinery.



Programmes for Paid Participants

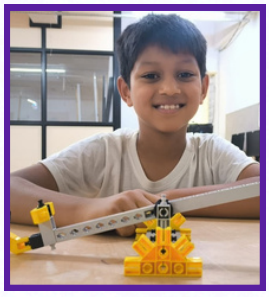






LEGO Robotics

- Delivery Partner: Conducted in collaboration with Cyan Orioles.
- Format & Cohort: A 10-session specialised weekend track conducted on Sundays, training 15 students during the academic year.
- Curriculum: An integrated STEAM pathway focusing on structural mechanics, basic electronics, robotic construction using modular LEGO building blocks, and algorithmic thinking through block-based programming environments.

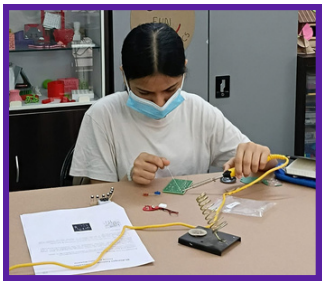




Short-Duration Programmes & Vocational Workshops

These focused, action-oriented workshops were designed to introduce students to rapid manufacturing, electronics, and essential household vocational skills over periods ranging from one to seven days.

Workshop	Core Skills & Project Deliverables
Ganapati Decoration	Seasonal eco-manufacturing, digital design selection, precision laser cutting, assembly, and decorative layout of reusable Makhars.
Eco-Friendly Lantern Making	Cultural design digitisation, laser cutting of intricate paper/wood frames, assembly, and custom wiring of reusable festive lanterns.
Basic Carpentry	Safe tool use, calibration, stock cutting, fastening, and fine wood polishing. Projects included bookshelves, key hangers, spice holders, and iron stands.
Basic Plumbing	Introduction to fluid dynamics, joint seals, valve selection, and directional pipe configurations. Capstone project: Building a functional miniature water fountain powered by a submersible motor.
Basic Electrical	Household electrical safety protocols, instrument testing, series and parallel circuit configurations, and manual assembly of electrical switchboards.
Bicycle Dissection	Mechanical self-reliance through the complete dismantling and reassembley of a standard bicycle, including tyre/tube removal, puncture repair, chain indexing, and lubrication.
Make-a-Bot	Introduction to hardware for younger cohorts through the construction of remote-controlled paper-chassis robots using BO motors, manual toggle switches, batteries, and wired wheel systems. No soldering or coding required.
Exciting Electronics	Electrical component identification, schematic symbols, circuit prototyping on solderless breadboards, and hands-on soldering of a functional take-home electronic project.
T-Shirt Printing	Graphic design preparation, precision vinyl plotter cutting, manual weeding, and high-temperature thermal transfer onto apparel fabrics.
Fab Machine Course	Intensive micro-credential format covering the product development lifecycle, including 2D/3D software drafting, raw material optimisation, safety procedures, and operation of 3D printers and laser cutters.
Reboot Lab	Diagnostic consumer-electronics repair, reverse engineering of everyday household appliances, fault identification, replacement of worn components, and basic hardware repair.








Impact Summary 2025–26

By running parallel tracks for Sponsored Social Integration (150+ students) and Public Vocational Training, the Innovation Hub contributed to expanding access to technical learning. The programmes provided students with opportunities to develop foundational tool literacy, coding skills, fabrication experience, and awareness of safety practices relevant to modern industrial design and engineering workflows.

Acknowledgment of our Esteemed Sponsors and Donors

We express our deepest gratitude to our valued sponsors and donors for their continued support in shaping the journey of Muktangan Exploratory Science Centre. Your generosity has been instrumental in fostering scientific curiosity, innovation, and hands-on learning among students and educators.

Our Sponsors and Donors:

Dassault Systems Foundation

Poona Couplings Pvt. Ltd.

Weikfield Foundation

Sandvik Coromant

Pune Knowledge Cluster

Great Software Laboratory Pvt. Ltd.

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Ansys Software Pvt. Ltd.

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Rotary Clubs

CASP

Yardi.com

DST Projects

NGO -Yojak

Mrs. Chitra Hemadri Buzruk
Shri. Dada Deshpande

Baramati Science Centre

Janseva Foundation

ThinkSharp Foundation

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Your support has enabled us to strengthen our programmes, enhance our facilities, and continue inspiring young minds in the field of STEM education.

We also extend our heartfelt appreciation to Mr. Suresh Deshpande, whose personal donation has been a cornerstone in supporting the Exploratory since its early years.
Your commitment to education and innovation empowers us to create meaningful learning opportunities for future generations. We look forward to continuing these valuable partnerships.

BHARATIYA VIDYA BHAVAN'S
MUKTANGAN
EXPLORATORY
SCIENCE CENTRE
EXPLORE • INNOVATE • INVENT

Thank you for making a lasting impact!

Conclusion

The activities conducted during 2025-26 demonstrated a strong commitment to promoting STEM education among school children, with a significant focus on reaching underprivileged students. Through structured academic programmes, hands-on workshops, laboratory experiences, competitions, outreach initiatives, and community engagement, Muktangan Exploratory Science Centre continues to foster scientific curiosity, practical skills, creativity, and scientific thinking among the younger generation.

Our Leadership and our Team

Our Leaders:



Late. Dr. V. G. Bhide
Founder- Muktangan Exploratory Science Centre



Smt. Leena Mehendale
Chairperson - Bharatiya Vidya Bhavan's Pune Kendra (Retired IAS Officer)



Prof. Nandkumar Kakirde
Director & Hon. Secretary Bharatiya Vidya Bhavan



Mr. Anant Bhide
Advisor and Ex- Director

Our Team:



Dr. Shilpa Jain
Director- Muktangan Exploratory Science Centre

From the Director's Desk,

Dear Friends, Supporters, and Fellow Change-Makers,

Guided by the vision of Padma Shri Dr. V. G. Bhide, Muktangan Exploratory Science Centre (MESC) has championed experiential science education for over three decades, encouraging children to explore, question, and innovate. Through hands-on STEM activities, laboratories, innovation spaces, and field-learning initiatives, we nurture curiosity, critical thinking, problem-solving, and practical understanding, preparing students for a rapidly evolving world of AI, robotics, space exploration, and sustainability.

Alongside empowering teachers through training and inquiry-based teaching resources across Maharashtra, we aim to strengthen MESC as a leading centre for future-ready STEM education. By expanding innovation hubs, introducing emerging fields such as AI and computational thinking, and building partnerships with academia, industry, and communities, we strive to make science accessible to all.

As we move forward, we are grateful for the continued trust and support of everyone who shares our vision. Together, let us spark curiosity, nurture young minds, and create a future where every child has the opportunity to discover, learn, and innovate.

Our Faculty and Supporting Staff

Our Faculty:

Bharati Baxi
Dy. Director- Academics

Vrishali Sardeshmukh
Incharge Innovation Hub

Neha Dhopate
Incharge Earth Science

Rutika Godekar
Assistant Innovation Hub

Jayashree Rane
Incharge Chemistry

Mayuri Patwardhan
Astronomy Educator & Brand Manager

Shubhangi Nalawade
Incharge Mechanical Lab

Yukta Pandey
Incharge Physics Lab

Rutuja Chikate
Incharge Mathematics Lab

Tejas Chimbalkar
Incharge Electronics Lab

Our Supporting Staff:

Arundhati Naik
Accounts

Madhuri Kadam
Reception

Vijay Jadhav
Administration

Appeal

Exploratory is run purely on public support. We believe that society at large should not only support such noble and innovative approaches to science education, but also take ownership of them. We appeal to everyone, the corporate, the philanthropic organisations to lend a helping hand to strengthen and sustain this institution.

Any donation to Bharatiya Vidya Bhavan entitles donor 100% income tax rebate under section 80G (2) (a)(iiif) as per Income Tax Act 1960. We have the permissions to receive the donations in foreign currencies. The donation cheques should be in favour of "Bharatiya Vidya Bhavan" along with a letter indicating that the proceeds be used for the Muktangan Exploratory Science Centre. We request you to join us in this noble cause by generously giving a donation. We are looking for a positive response and help from you.

Bharatiya Vidya Bhavan's
Muktangan Exploratory Science Centre

CONNECT WITH US

For companies, institutions, and NGOs, this presents an opportunity to come together for a shared cause—educating with purpose.

MESC is fully compliant with CSR-1, 12A, 80G, FCRA, and Benevity, ensuring transparency, credibility, and accountability.

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