



# INDIA INTERNATIONAL SCIENCE FESTIVAL 2022

21-24 January, 2023  
MANIT, Bhopal, Madhya Pradesh

**MARCHING TOWARDS AMRIT KAAL WITH  
SCIENCE, TECHNOLOGY  
AND INNOVATION**



सत्यमेव जयते  
Ministry of  
Science and  
Technology



सत्यमेव जयते  
Ministry of  
Earth Sciences



Vijnana  
Bharati



सत्यमेव जयते  
अंतरिक्ष विभाग  
Department of Space



Government of  
Madhya Pradesh



Madhya Pradesh Council of Science & Technology



MANIT, Bhopal

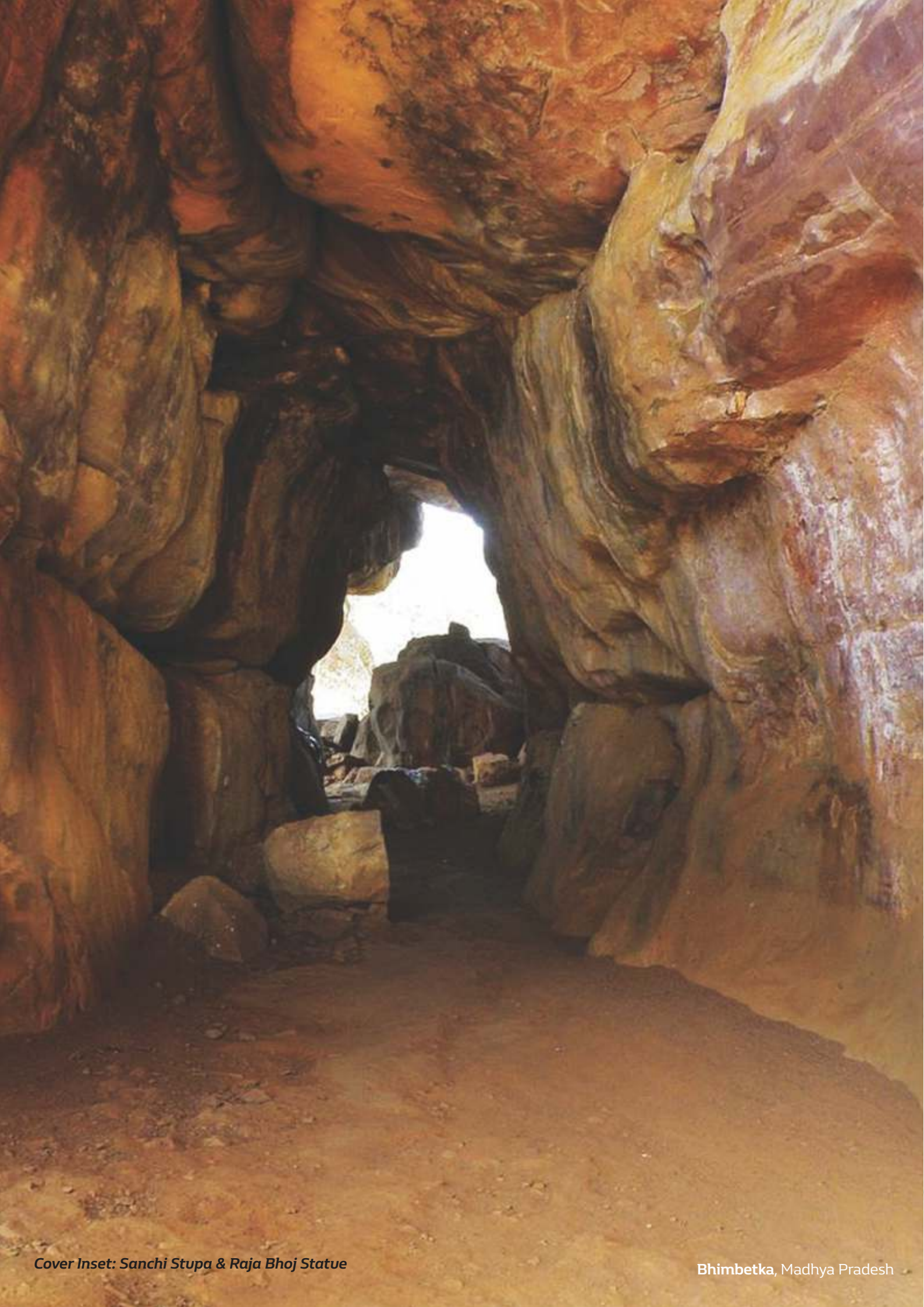


United Nations  
Educational, Scientific and  
Cultural Organization



क्षेत्रीय जैव प्रौद्योगिकी केंद्र  
Regional Centre  
for Biotechnology







डॉ. जितेन्द्र सिंह

राज्य मंत्री (स्वतंत्र प्रभार),  
विज्ञान एवं प्रौद्योगिकी मंत्रालय,  
राज्य मंत्री (स्वतंत्र प्रभार) पृथ्वी विज्ञान मंत्रालय,  
राज्य मंत्री प्रधान मंत्री कार्यालय,  
राज्य मंत्री कर्मिक, लोक शिक्षण एवं पेंशन मंत्रालय,  
राज्य मंत्री परमाणु उर्जा विभाग तथा अंतरिक्ष विभाग  
भारत सरकार



सत्यमेव जयते

DR. JITENDRA SINGH

Minister of State (Independent Charge),  
of the Ministry of Science and Technology,  
Minister of State (Independent Charge)  
of the Ministry of Earth Sciences,  
Minister of State in the Prime Minister's Office,  
Minister of State in the Ministry of Personnel,  
Public Grievances and Pensions,  
Minister of State in the Department of Atomic Energy and  
Department of Space,  
Government of India



### MESSAGE

The 8<sup>th</sup> India International Science Festival (IISF) is being organized by Ministry of Science & Technology, Ministry of Earth Sciences, Department of Space, Department of Atomic Energy and coordinated by Department of Biotechnology in association with Vijnana Bharati (VIBHA) at MANIT Bhopal (MP) from 21 to 24 January 2023. The Festival aims to celebrate and showcase the achievements in area of sciences, technology and innovation. The overarching aim of the program is to engage the common person with science in a joyful manner.

The Festival is in sync with Azadi Ka Amrit Mahotsav with the theme of "Marching towards Amrit Kaal with Science Technology and Innovation". The government is providing all necessary support so that science and technology can make greater impact on society. Recently, country has developed multiple indigenous vaccines for COVID 19 and helped in achieving a grand vaccination drive of more than 2.2 billion people in India and also helped many other countries around the world. Launching of 104 satellites through a single launch vehicle, moon mission and the 1000 drone show on the Beating Retreat are noticeable recent achievements. Furthermore, country has made tremendous progress in all sectors including space, defence, IT, telecommunications, medical and agriculture with help of science and technology.

The IISF is an excellent platform for interaction among students, scientists, innovators, citizens, policy makers and industries including start-ups. It showcases the scientific achievements of the country directly to the public. Special events have been planned for students, artisans, innovators, New Age Technology, young scientists, science films, and science literature. I am sure that such participatory citizen science initiatives will help to pave the way for translation of scientific outcomes for the welfare of our citizens. India has adopted a way of सर्व कल्याण by जय जवान, जय किसान, जय विज्ञान और जय अनुसन्धान.

India has entered in "Amrit Kaal". It is important to make our science more inclusive by inculcating ideas not only from professionals but also from the common man. I am sure, the sessions planned in IISF 2022 will provide an interactive stage to communicate scientific developments and thoughts among people from different walks of society. I hope large number of persons from the academia, schools, colleges, scientific community, industry and common citizens will benefit by the IISF 2022.

I wish a grand success to IISF 2022.

(Dr. Jitendra Singh)

MBBS (Stanley, Chennai)  
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शिवराज सिंह चौहान

मुख्यमंत्री  
मध्यप्रदेश

दिनांक:- 09-12-2022

पत्र क्रमांक - 757/22



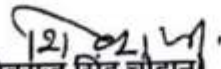
### संदेश

प्रसन्नता का विषय है कि आठवां भारतीय अंतर्राष्ट्रीय विज्ञान महोत्सव 21 से 24 जनवरी 2023 को मध्यप्रदेश की राजधानी, झीलों की नगरी भोपाल में हो रहा है। माननीय श्री जितेन्द्र सिंह जी, केन्द्रीय राज्यमंत्री (स्वतंत्र प्रभार), विज्ञान और प्रौद्योगिकी मंत्रालय, पृथ्वी विज्ञान मंत्रालय, भारत सरकार के प्रति मैं आभारी हूँ।

8 वां भारतीय अंतर्राष्ट्रीय विज्ञान महोत्सव भारत सरकार के विज्ञान और प्रौद्योगिकी मंत्रालय, पृथ्वी विज्ञान मंत्रालय, परमाणु ऊर्जा विभाग, अंतरिक्ष विभाग एवं विज्ञान भारती द्वारा किया जा रहा है। इसमें विज्ञान के विभिन्न कार्यक्रमों में आठ हजार से अधिक प्रतिभागी हिस्सा लेंगे। स्कूली एवं महाविद्यालयीन विद्यार्थी, उच्च शिक्षा शोधार्थी, वैज्ञानिक, उद्योग जगत के विशेषज्ञ, शिक्षकगण तथा समाज के विभिन्न वर्गों का इनमें प्रतिनिधित्व रहेगा। देश एवं प्रदेश के विकास में विज्ञान, प्रौद्योगिकी एवं नवाचार को लोकप्रियता मिलेगी।

मध्यप्रदेश में भी गत दो दशक से विज्ञान, प्रौद्योगिकी एवं नवाचार के क्षेत्र में अहम कार्य हो रहा है। इस महोत्सव से हमारे प्रयासों में भी तेजी आएगी। आशा है, मध्यप्रदेश विज्ञान एवं प्रौद्योगिकी विभाग एवं मध्यप्रदेश विज्ञान एवं प्रौद्योगिकी परिषद आयोजन के समन्वय एवं आवश्यक सुविधाएं प्रदान करेंगे।

महोत्सव की सफलता के लिए हार्दिक शुभकामनाएं।

  
(शिवराज सिंह चौहान)

6, ग्यामला हिल, भोपाल - 462 002





डॉ. राजेश सु. गोखले  
Dr. RAJESH S. GOKHALE



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भारत सरकार  
विज्ञान और प्रौद्योगिकी मंत्रालय  
जैव प्रौद्योगिकी विभाग  
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MINISTRY OF SCIENCE & TECHNOLOGY  
DEPARTMENT OF BIOTECHNOLOGY  
Block-2, 7<sup>th</sup> Floor, CGO Complex  
Lodhi Road, New Delhi-110003



### Message

India International Science Festival (IISF) is an annual event since 2015 which is jointly organized by all scientific ministries. It gives me immense pleasure to announce that the 8th IISF is being coordinated by the Department of Biotechnology, Ministry of Science & Technology with other scientific ministries, Vijnana Bharti (VIBHA) and Government of Madhya Pradesh during 21<sup>st</sup> - 24<sup>th</sup> January 2023 at Maulana Azad National Institute of Technology (MANIT), Bhopal. The Government of Madhya Pradesh has kindly consented to extend whole-hearted support to this Festival.

India International Science Festival (IISF) is a platform to bring together Researchers, Students, Innovators & Artists to experience & promote the joy of doing science. Communicating scientific thoughts and processes to people from different facets in a common language is of utmost importance to make their lives better and healthy. Indian science needs to be at the forefront of inculcating citizen-centric science initiatives. The IISF platform provides an interactive opportunity to make aware the common masses with the scientific and technological achievements of the country.

Wider engagement of the communities across the disciplines is the need of the hour to understand the real societal issues that need urgent scientific interventions. The exchange of ideas among the common people, students and scientists can pave the path for the fast-track delivery of scientific services to society.

The IISF is a festival to celebrate science and technology by showcasing the national commitments, strengths, and achievements in the field of Science, technology, and allied disciplines. While India has chosen the path to be a \$5 trillion economy by 2025, it is important to integrate our scientific community, start-up ecosystem and ideas from public to fill up the technological gap in an accelerated manner. It is pertinent to develop scientific temperament among common citizens to make India a Science & Technology driven economy.

The theme of 8<sup>th</sup> IISF is "**Marching towards Amrit Kaal with Science, Technology, and Innovation**" aims to inculcate scientific temperament among the masses and showcase Indian contribution in the field of Science and Technology.

It is my pleasure to extend a warm welcome to all the delegates from India and abroad to the 8<sup>th</sup> IISF at Bhopal.

(Dr. Rajesh S. Gokhale)

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IISF 2022



सत्यमेव जयते

डॉ. एस. चंद्रशेखर  
Dr. S. Chandrasekhar



एक कदम स्वच्छता की ओर



सचिव  
भारत सरकार  
विज्ञान एवं प्रौद्योगिकी मंत्रालय  
विज्ञान एवं प्रौद्योगिकी विभाग

Secretary  
Government Of India  
Ministry of Science and Technology  
Department of Science and Technology

8<sup>TH</sup> December 2022



### MESSAGE

Eighth edition of India International Science Festival (IISF) is being jointly organized by Ministry of Science & Technology, Ministry of Earth Sciences, Department of Atomic Energy and Department of Space and Vigyan Bharti (VIBHA) during 21<sup>st</sup> - 24<sup>th</sup> January 2023 at Maulana Azad National Institute of Technology (MANIT), Bhopal.

IISF is serving its purpose of promoting science among people and showcasing the achievements in the field of Science and Technology in India. Theme of 8<sup>th</sup> IISF "**Marching towards Amrit Kaal with Science, Technology, and Innovation**" will instill a spark among students to do innovation, young researchers to get new ideas through young scientists' conclave and public through Artisan's technology village and science through games and toys, and new age technology showcasing etc. Everyone associated with science will get the benefit of festival and will feel pride in being part of event for marching towards Amrit Kaal.

The Department of Science and Technology wishes a grand success to 8<sup>th</sup> IISF and congratulate all participants for their active contributions.

(S. Chandrasekhar)

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डॉ. एम. रविचंद्रन  
Dr. M. Ravichandran

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पृथ्वी भवन, लोदी रोड, नई दिल्ली-110003

SECRETARY  
GOVERNMENT OF INDIA  
MINISTRY OF EARTH SCIENCES  
PRITHVI BHAWAN, LODHI ROAD, NEW DELHI-110003



#### MESSAGE

It gives me immense pleasure to know that the 8<sup>th</sup> IISF is being organized by the Department of Biotechnology, jointly with DST, CSIR and MoES, in collaboration with Vijnana Bharati (VIBHA) and the Government of Madhya Pradesh, during 21 - 24 January 2023 at Maulana Azad National Institute of Technology (MANIT), Bhopal.

India International Science Festival (IISF) is an integral part of India's long-term vision in developing and widening the spectrum of scientific temper.

IISF celebrates Science & Technology by showcasing India's scientific strength and achievements. It focusses on students and science loving citizens from all spheres of life. It provides an ideal and vibrant platform to all those who are keen to gain new insights in contemporary areas of science and technology. It also creates ample opportunities for scientists, innovators and young researchers to deliberate, interact and connect to all likeminded people with scientific temperament.

I hope that IISF with its theme as "Marching towards Amrit Kaal through Science, Technology, and Innovation" will act as a catalyst to ignite the young minds to use science and technology for addressing the societal issues for the development of the country.

I wish all the stake holders of science and technology who are part of this festival and allied organizations a grand success

(M. Ravichandran)

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IISF 2022



डॉ. (श्रीमती) एन. कलैसेल्वी

सचिव

वैज्ञानिक और औद्योगिक अनुसंधान विभाग तथा  
महानिदेशक

Dr. (Mrs.) N. Kalaiselvi

Secretary

Department of Scientific & Industrial Research and  
Director General



भारत सरकार

विज्ञान और प्रौद्योगिकी मंत्रालय

वैज्ञानिक तथा औद्योगिक अनुसंधान परिषद

वैज्ञानिक और औद्योगिक अनुसंधान विभाग

Government of India

Ministry of Science and Technology

Council of Scientific & Industrial Research

Department of Scientific & Industrial Research



#### Message

I am delighted to learn that the 8th edition of the India International Science Festival is being organized from 21 to 24 January 2023 at Maulana Azad National Institute of Technology (MANIT), Bhopal.

Over the years, the IISF has become an iconic annual event that attracts school students, science enthusiasts, research scholars, teachers, scientists, and the public in large numbers in the spirit of a festival.

The following 25 years will be a crucial period for India. As India rapidly marches to emerge as a developed country in the coming decades, Science, Technology, and Innovation will place a pivotal role in India's progress, growth, and development. I am happy to note that the 8th IISF is being held on the all-important theme, "Marching towards Amrit Kaal through Science, Technology, and Innovation".

I am sure the 8th edition of the IISF will be as successful as all the previous editions, with large-scale participation from all cross sections of society.

I wish the 8th India International Science Festival a grand success.

*N. Kalaiselvi*  
(N Kalaiselvi)

5th December, 2022  
New Delhi

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के. एन. व्यास  
K. N. Vyas



अध्यक्ष, परमाणु ऊर्जा आयोग  
व  
सचिव, परमाणु ऊर्जा विभाग  
Chairman, Atomic Energy Commission  
&  
Secretary, Department of Atomic Energy



#### MESSAGE

I am glad to know that the 8<sup>th</sup> edition of India International Science Festival (IISF) is being jointly organized by the Ministry of Science & Technology, Ministry of Earth Sciences, Department of Atomic Energy and Department of Space in association with Vigyan Bharti (VIBHA) from 21<sup>st</sup> - 24<sup>th</sup> January, 2023 at Maulana Azad National Institute of Technology (MANIT), Bhopal, Madhya Pradesh.

This festival initiated by the Government of India is becoming an integral part of India's vision of developing & promoting scientific temper among various stakeholders of our society and showcasing the achievements in the field of Science, Technology & Innovation in India. The theme of this year IISF i.e. **"Marching towards Amrit Kaal with Science, Technology, and Innovation"** is going to provide a platform where scientific fraternity and industries gets opportunities to showcase innovations and technological prowess for the overall development of the country. The festival also provides a unique opportunity to the students and researchers to have interactions with the eminent scientists and innovators. The India International Science Festival is going to benefit all the scientific fraternity and they will feel pride being part of this mega event.

I wish a grand success to the 8<sup>th</sup> IISF being coordinated by the Department of Biotechnology and congratulate all the participants.

  
(K.N. Vyas)



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एस. सोमनाथ / S. SOMANATH  
अध्यक्ष / Chairman



## MESSAGE

It is quite exciting to learn that the 8th edition of the India International Science Festival (IISF) will be held in Bhopal from January 21<sup>st</sup> to 24<sup>th</sup>, 2023.

For the purpose of exchanging knowledge and information, the IISF has grown to be a very popular platform for bringing together students, scientists, and technologists. The student community is inspired by science awareness, which spurs them to be inquisitive and creative. The festival also organises a variety of events, expert speeches, and exhibitions to highlight and spread knowledge and achievements by scientific organisations. It also attempts to instil in students a scientific temperament that will allow them to engage in innovation and research.

The Department of Space, has always been fascinated and eager to participate in the event in order to share technology, applications, and achievements in order to inspire students to seek careers in science and engineering.

I am optimistic that the upcoming festival will be more fruitful and eventful for the benefit of the scientific community. I wish the IISF event a grand success.

Date: December 8<sup>th</sup>, 2022

(सोमनाथ एस / Somanath S)





## MESSAGE

It gives me immense pleasure that the India International Science Festival (IISF), an annual event that began in 2015, has reached its 8<sup>th</sup> edition. Vijnana Bharati (VIBHA) is proud to be associated with this event since its inception with a team of dedicated and hardworking members. VIBHA is known as the largest Swadeshi Science Movement in India, with the vision and mission of making Bharat a developed nation. VIBHA believes such a goal is achievable through nurturing and fostering science and scientific temper among the citizens of Bharat. IISF is one such platform wherein science is not only nurtured but celebrated through innovations by the young and talented youth of the 21<sup>st</sup> century. I have witnessed this ecstatic and commendable journey very closely. I am glad to know that this journey will continue with the conduct of the 8<sup>th</sup> edition of this unique science festival at Bhopal.

The visionary leadership of Honourable Prime Minister Shri Narendra Modi ji and Hon'ble Union Minister Dr Jitendra Singh ji will take the festival to new heights. Their ideas and vision for the science and technology of the country are inspirational and motivational to many youths and researchers. I am sure that the guidance and directions of Hon'ble Dr Jitendra Singh will help the Department of Biotechnology which is the coordinating department, to organise IISF-2022 successfully. The organisation of IISF-2022 at Maulana Azad National Institute of Technology (MANIT) Bhopal will provide various prospects to all the research institutions of India in general and Madhya Pradesh in specific.

The theme of IISF-2022, 'Marching towards Amrit Kaal with Science, Technology, and Innovation', is worth to be applauded, as it signifies the vision and mission of the people. It is highly relevant to India's developments and achievements in the field of science and technology field. I am happy to note that 14 events are being organised with an emphasis on Face to Face with New Frontiers of Science and Technology, Science through Games & Toys, the Students Innovation Festival, Science Literature Festival, International Science Film Festival, S&T Council Conclave and Start-up Meet. It will showcase the scientific and technological advancements worldwide through Mega Science Expo.

I am sure the volunteers of VIBHA will make extensive efforts to achieve the desired outcome of the event. I wish for the grand, meaningful and fruitful success of IISF 2022.

**Dr. Shekhar C. Mande**  
National President, VIBHA



# VISION MISSION

## VISION

Promotion of Creativity in Science, Technology and Innovation for Prosperous India

## MISSION

To engage creative and imaginative minds in India and across the globe to celebrate science through various programs and activities connected to the five pillars of Aazadi ka Amrit Mahotsav.

## ABOUT IISF

India International Science Festival (IISF) is an initiative of Ministry of Science and Technology and Ministry of Earth Science of Government of India in association with Vijnana Bharati which is a science movement with swadeshi spirit lead by eminent scientists of the country. The main purpose of IISF is the celebration of science by all. Engagement of common people with science in a joyful and entertaining manner is essential for the healthy, prosperous and meaningful life. Through its creative programs and activities, IISF provides opportunities to people and scientific fraternity in the country and abroad to come together, work together and experience the joy of doing science for the wellbeing of India and humanity.

## JOURNEY OF IISF

The journey of IISF was started with its inaugural event at Delhi in 2015. Seven editions of IISF have been organized since then in northern, southern and the eastern regions of the country. The pandemic in 2020 due to Covid19 posed a serious challenge for the conduct of this annual event, but the challenge was overcome by conducting the event on a virtual platform to maintain the uninterrupted flow of journey.

Responsibility of conducting this mega annual event is given either to one of the departments of the Ministry of Science and Technology, viz. DST, CSIR and DBT or to the Ministry of Earth Science in rotation. Several other ministries and departments related to S&T have always been involved in the organization of the event. Vijnana Bharati has been a consistent organizing partner in the forward march of IISF.

IISF has evolved progressively through its innovative design of programs and activities connecting various aspects of life to science. Representation of the diverse strata of society in the event has emerged as a remarkable feature of IISF. The number of participants from India and abroad has grown steadily with every edition and the journey is on involving more and more people to attain the desired outcome.

- IISF 2015-IIT Delhi
- IISF 2016-CSIR-NPL, Delhi
- IISF 2017-IIT Madras, Chennai
- IISF 2018-IGP, Lucknow
- IISF 2019-Science City, Kolkata
- IISF 2020-CSIR-NISTADS (Virtual mode)
- IISF 2021-NCPOR, GOA (Hybrid mode)



# IISF 2022

- 01 Artisan's Technology Village - Vocal for Local
- 02 Face-to-Face with New Frontiers in Science
- 03 Guinness Book of World Records
- 04 International Science Film Festival of India
- 05 Mega Science and Technology Exhibition
- 06 National Social Organizations and Institutions Meet (NSOIM)
- 07 New Age Technologies Show
- 08 Science through Games and Toys
- 09 Startup Conclave
- 10 State Science & Technology Councils Conclave
- 11 Students' Innovation Festival (SIF)
- 12 Students Science Village 2022
- 13 VIGYANIKA – Science Literature Festival
- 14 Young Scientists Conference

IISF 2022

## Artisan's Technology Village - Vocal for Local

The Indian subcontinent was known for its rich art and craft. Its recipe for the finest and most exotic heritage was the perfect balance of knowledge of scientific principles and their application in real life. Due to the systematic destruction of Indian heritage systems during British rule, Indians started losing hold of their ancient art forms. Indian artisans have created one of the past's finest art forms and materials. The production of these handlooms and handicrafts involves scientific acumen of excellent level. These traditional industrial methods need to flourish to preserve and highlight the work and the scientific aspects of handicrafts and handlooms globally.

Artisan's Technology Village aims to develop a bridge by scientific intervention between the artisans and modern scientific approaches to discuss the enhancement of traditional crafts to make them more persistent globally. The festival will consist of a three-day Expo displaying various art forms from across India and a two-day national-level conference to promote scientific interaction between artists and the scientific fraternity.

**Dates:** 22, 23 and 24 January 2023

**Venue:** LRC, MANIT, Bhopal

### Coordinators

**CSIR(AMPRI, Bhopal):**

1. Dr. Mohd. Akram Khan, Sr. Principal Scientist, AMPRI, Bhopal - 9425373429  
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## Face-to-Face with New Frontiers in Science

Interface among researchers is a key to scientific knowledge. The objective of this theme is to highlight the potential of new frontiers of science for the societal development and to bring social change with its upcoming new technologies. This will assuredly create the zeal of scientific temperament amongst youth.

New frontiers of science are interdisciplinary having creativity, innovations and utility across fields, such as artificial intelligence, agro-tech, medicine, pharmacy, health, environment, energy, power, biosciences, nanotechnology, genetics, space technology, nuclear physics, etc.

"Face to Face with New Frontiers in Science" is an initiation of cordial interaction and short discussion-based sessions of students/ researchers with people par excellence in various disciplines of S&T. This will certainly inspire students to pursue science and research in his/her career.

**Dates:** 22-24 January 2023

**Venue:** IISF Main Hanger Area, MANIT, Bhopal

Coordinating Agencies: DST & Vijnana Bharati

### Coordinators

#### DST

1. Dr. Anita Gupta, Head, NSTEDB and TMD (EW&O) -9811828996
2. Dr. J.B.V.Reddy, Scientist F –9667792473
3. Shri Anurag Mishra, DST -9953666362 - Email: anurag.dbt@nic.in

#### VIBHA

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# Guinness Book of World Records

World record attempts have been an integral part of IISF since its inception to encourage science popularization through active public participation. Guinness World Records (GWR) is recognized as one of the global authorities for recording and validating record-breaking achievements, which is open to challengers who seek to break any imaginable limit. This year too, IISF-2022 includes GWR to attain newer feats. Young students, our budding scientists, will gather to create Guinness World Records as they gear up for the simultaneous assembly of prototype models and demonstrate workable models, sending a message of Atmanirbhar Bharat. These world record attempt activities are planned to commemorate Panch Pran of Amrit Kaal, guiding principles for our journey in the next 25 years. A plethora of exciting activities will be conducted to build awareness and attempt new world records, which will appeal to students and science enthusiasts of diverse age groups, to reminisce our resolve toward Developed India. Through these activities, IISF 2022 GWR aims to have a real impact on society, enabling everyone to make a strong contribution to maximize awareness of "Science, Technology, and Innovation for Self-Reliant India during this AMRIT KAAL".

World Records achievements during the earlier IISFs will be decorated on the wall of fame, showcasing 14 Guinness World Records received in the last seven years of its journey.

**Date:** 23 January 2023

**Venue:** IISF Main Hanger Area, MANIT, Bhopal

**Coordinators**

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## International Science Film Festival of India

The International Science Film Festival of India (ISFFI) seeks to promote science popularisation among citizens and aims to attract talented young science filmmakers and science enthusiasts. The ISFFI offers an opportunity for students and filmmakers to get involved with science communication through films. Science and technology have been an integral part of Indian culture and tradition. During the festival, internationally acclaimed and award-winning foreign and Indian films on environmental awareness-related topics will be screened via online platforms and at the IISF Venue. The ISFFI will have panel discussions, debates, and competitions for Indian and International professional and student filmmakers. The competition will invite short films/documentary films/animation films/media reports related to scientific knowledge and technology of fewer than 35 minutes of length on the themes of (i) Science, Technology and Innovative for Sustainable Development (ii) Science, Technology and Innovative to Address Climate Change (iii) Science, Technology and Innovative for Better Life.

**Dates:** 22, 23 and 24 January 2023

**Venue:** Auditorium, Electrical Engineering Department, MANIT, Bhopal

**Coordinators**

DST/DBT/CSIR/MoES

1. Shri Nimish Kapoor, Scientist E & Head, Science Film Festivals, Vigyan Prasar - 9810215648  
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2. Dr. Paramananda Barman, Scientist, CSIR-NIScPR- 8527264402

**Vijnana Bharati**

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2. Vikash Shende-9926365747 - Email: shende.v@gmail.com

# Mega Science and Technology Exhibition

IISF 2022 hosts a Mega Science and Technology Exhibition. This 'IISF Mega Science and Technology Exhibition 2022' will showcase India's proudest achievements, advancements, and success stories in the field of Science, Technology, Engineering, and Mathematics.

The top Indian Scientific/ Academic Organizations, R&D Labs, PSUs, Educational Institutes, State Councils, etc., will participate in this Exhibition and showcase the contribution of Science and Technology to the country's overall development. Various Technologies developed by Indian Scientific and R&D Institutions across the country will be on display to educate and enthuse students, young scientists, and the general public. IISF 2022 Exhibition will also showcase various initiatives by the Hon'ble Prime Minister in the last eight years, like Aatmanirbhar Bharat, Swachh Bharat, Digital India, Skill India, Make in India, etc.

Also, to mark the 75<sup>th</sup> Anniversary of India's independence, the exhibits of this edition will have a special focus on '**Science Technology Innovation in Amrit Kaal and Achievements@75**'.

**Dates:** 21, 22, 23 and 24 January 2023

**Venue:** Athletics Ground, MANIT, Bhopal

## Coordinators

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## National Social Organizations and Institutions Meet (NSOIM)

National Social Organizations and Institutions Meet (NSOIM), one of the prominent events in IISF, has been a national platform for bringing together all the stakeholders of societal development through Science and Technologies that help in solving societal issues. The event gives an opportunity for the social and scientific community to exchange their ideas for livelihood-centric development, showcasing grassroots models having scope for social diffusion and commercialization from various scientific & research institutions that can lead to a self-reliant India.

Participants from Science & Technology (S&T) based Social Organizations, Societal Research & Academic institutions and Entrepreneurs engaged in societal development will be invited to discuss scientific interventions and sustainable models for societal development and nation-building. The focal theme of NSOIM-2022 is 'Livelihood Centric Technology Delivery for Reducing Multidimensional Poverty and Building Atmanirbhar Bharat'.

**Dates:** 21, 22 and 23 January 2023

**Venue:** Auditorium, Civil Engineering Department, MANIT, Bhopal

## Coordinators

### DST:

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# New Age Technologies Show

Present day world is dominated by science and engineering technologies, and our daily lives start and end with such new-age technologies. It is high time to recognize and develop the new age technologies in India for the whole world, which may not only improve the lifestyle and economic empowerment of human beings but also largely impact society's well-being.

This event aims to encourage innovativeness in emerging technologies such as Metaverse, Augmented Reality, Mixed Reality & Virtual Reality, Artificial Intelligence / Machine Learning, Cyber Security, Block Chain, Digital Currency, Internet of Things, Industry 4.0, 5G/6G, Quantum Computing, Semiconductor Chip Design, Drone Technologies, Green Energies, Edge Computing, Space Technologies, Sensor Technologies, Systems and Synthetic Biology, Genomics, Vaccine Development, Diagnostics, CAR-T Cell therapy etc. are some major facets of New Age Technologies.

The event will showcase the Technology Readiness Levels of engineered prototypes and products in various cutting-edge areas. This year the New Age Technology Show will have an exhibition of Cutting Edge Technologies by Industries/Institutions, Competitions like Design Challenges through presentation/demonstration, Quizzes and Poster Competitions.

**Dates:** 21-24 January 2023

**Venue:** LRC, MANIT, Bhopal

**Coordinators**

**DBT:**

1. Dr. Sangeeta Kasture, Sc.'F'-9910012563 -Email: sangita.kasture@nic.in
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## Science through Games and Toys

Games and Toys are the most potent tools to impart knowledge and learn science in a joyful and entertaining way. Traditional Indian toys are not just for fun but play an important role in learning skills like maths, hand-eye coordination, and Sensory-development among young kids. A lot of science is involved in the development of Games and Toys. With the advancements in science and technology, new vistas have opened up for creative and imaginative people to develop Games and Toys of a new age. India has a rich tradition of local toys and has talented and skilled artisans with expertise in making good toys. Indian toy industries have opportunities to grow rapidly in this space. IISF provides a platform to showcase traditional, innovative, creative and modern toys by traditional toy makers as well as new start-ups in a spirit of vocal for local toys. The program hosts sessions and workshops for students to motivate the development of mental concentration and logical thinking as well as the science behind the development of Games and Toys.

**Dates:** 21-24 January 2023

**Venue:** LRC, MANIT, Bhopal

**Coordinators**

**CSIR:**

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**Vijnana Bharati:**

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## Startup Conclave

India is the 3<sup>rd</sup> largest startup ecosystem globally, with more than 75,000 startups. The Startup ecosystem is now witnessing an increase in the number of startups growing into Unicorns. Startup Conclave would provide a peek into India's innovation ecosystem. The event would offer the opportunity to learn, understand and engage with 'science-led' Startups and supporting enablers, especially the Incubation centres.

The conclave would have a special focus on the Biotech Innovation ecosystem that is championed by DBT/BIRAC. The largest funding schemes in the biotech sector, namely, Biotech Ignition Grant (BIG) for entrepreneurs & startups, and the BioNEST scheme for bio-incubation centres, have completed ten years and made an immense contribution. The conclave will showcase its outcome. Startup Conclave would comprise four major elements, (i) Exhibition of innovative products and technologies by Startups in various fields, (ii) Exhibits by Incubators offering enabling services and shared infrastructure, (iii) Focused discussions on challenges and opportunities for Startups and (iv) how to avail the enabling opportunities under Startup India.

**Dates:** 21-24 January 2023

**Venue:** Athletics Ground, MANIT, Bhopal

**Coordinators**

**DBT:**

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## State Science & Technology Councils Conclave

The Department of Science and Technology (DST), Government of India (GoI) has established a unique Centre-State cooperation mechanism through the network of 28 State Science & Technology Councils. An initiative to strengthen the Centre-State partnership was taken in 1971 by Shri C. Subramaniam, then Minister for S&T and Chairman National Committee for Science & Technology (NCST), through the establishment of State Science & Technology Councils. Karnataka, Kerala, Uttar Pradesh, and West Bengal were the leading states who had established the S&T Councils by the end of 5<sup>th</sup> five-year plan (1974-1978).

State Science & Technology Councils Conclave intends to deliberate on catalyzing the STI ecosystem at the state level through the network of State Science & Technology Councils. The conclave will provide a platform to discuss the state-wise strength, gaps, and way forward in terms of strengthening the STI ecosystem. As the STI data is the key ingredient for the policy matter, a session will be dedicated to the development of the STI data framework. State Science and Technology Councils Conclave of IISF 2022 also gives an opportunity for the discussion on bridging the gap between knowledge and socioeconomic development. The deliberations on the mapping and nurturing of grassroots innovations will also be held during the conclave.

**Date:** 21, 22 and 23, January 2023

**Venue:** Auditorium MPCST, Bhopal

**Coordinators**

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**Vijnana Bharati:**

1. Director MPCOST



# Students' Innovation Festival (SIF)

Students' Innovation Festival (SIF) focuses on spreading technical knowledge and suffusing enthusiasm in the minds of the students to develop technology for a sustainable life. Bringing together the best minds from the engineering world and providing a platform of interaction, SIF22 would give an opportunity to entice every prospective engineer, researcher, or scientist. Providing an avenue for showcasing innovative products, projects, and ideas developed by students, we see the best technology being incubated here.

The focus of SIF22 will be to encourage students to think innovatively and scientifically to solve the problems of society using various technological fields, with a focus on five elements as per ancient Indian (Bharatiya) thought. They would be expected to keep these five elements (Panchmahabhoot - पंचमहाभूत), the Earth (पृथ्वी), the Water (जल), the Fire (तेजस/अग्नि), the Air (वायु), and the Space (आकाश) as a core for the survival and sustainability of life on Earth. The students will be prompted to connect themselves with the roots of Bharat using their own innovation and creativity.

**Date:** 22 and 23 January 2023

**Venue:** LRC, MANIT, Bhopal

**Coordinators**

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## Students Science Village 2022

Inculcating the spirit of science and creativity in young minds are the fundamentals of the Students Science Village program of the India International Science Festival (IISF). The participants of the Student Science Village program are the students from class VIII to XI and the coordinating teachers nominated by the Hon'ble Members of the Parliament from their respective villages adopted under "Pradhan Mantri Sansad Adarsh Gram Yojana". Students Science Village 2022 is set to repeat the success of the previous years by making a greater attempt to reach out to the rural masses and propagate science to the extent of seeking scientific solutions to the diverse challenges our society is facing, specifically the rural parts of our nation, and also to inculcate scientific temperament and promote interest in science. The participating student will have the opportunity to be a part of hands-on science activities conducted by science communicators; to have interactions with the eminent scientists/educationalists/industrialist from India and abroad, to visit Mega Science & Technology Expo: - An exhibition showcasing India's achievements in Science and Technology by various Ministries, Departments and Institutions of the Government of India; to watch Scientific Films, participate in the workshop on the scientific instrument; to visit R & D institutions at host city, opportunity for cultural interaction and exchange of knowledge.

**Dates:** 21, 22, 23 and 24 January 2023

**Venue:** Lecture Halls of Civil, Electrical, MSME & Mechanical Department, MANIT, Bhopal

**Coordinators**

**DBT:**

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# VIGYANIKA – Science Literature Festival

Science, Technology and Innovation (STI) are crucial to addressing challenges that the country faces and advancing the nation's growth. The benefits of STI to usher in an 'Aatmanirbhar Bharat in the Amrit Kaal' can be optimally and effectively harnessed if the citizens of the country from all walks of life are appropriately engaged with scientific ideas and developments. This is a big challenge, especially in view of the vast expanse of the country, the huge population and the rich diversity that India is blessed with – languages, cultures, and traditions. 'Vigyanika – Science Literature Festival' aims to deliberate on mechanisms to take science to every corner of the country through effective science literature disseminated through the multitudes of media channels available today. As in its earlier editions, Vigyanika will also deliberate on contemporary challenges to the creation of scientific literature and science communication. 'Vigyanika – Science Literature Festival' will endeavour to offer a rich fare of Keynote Lectures, Panel Discussions and Scientific Sessions interspersed with interactions with S&T authors, Vigyan Kavi Sammelan, Science Drama and competitions.

**Dates:** 22 and 23 January 2023

**Venue:** Auditorium, Mechanical Engineering Department, MANIT, Bhopal

## Coordinators

### CSIR:

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### Vijnana Bharati:

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## Young Scientists Conference

Young Scientists Conference (YSC) is one of the important events of IISF-2022. It intends to bring young researchers, scientists and innovators below the age of 40 years belonging to academia, research and industry fraternities. It makes the young researchers aware of the scientific policies of India and the success stories of India's scientific progress. This event would motivate the young brains to find scientific solutions for the ongoing issues of our country, such as climate change, bio-economy, ecosystem sustainability, and rational use and protection of natural resources. YSC is truly an opportunity for young researchers to showcase their scientific contributions and innovations to fellow researchers and the public. This platform would help young researchers cultivate their skill of public presentation and would inspire many young minds to pursue research in other frontier areas of science such as artificial intelligence, science at the nanoscale, quantum computation etc. The conference also aims to strengthen the scientific potential of young researchers by promoting their future collaborations in interdisciplinary areas to tackle a wide range of issues at the national level in science, industry and society. For details, please see the brochure of YSC.

**Date:** 21, 22 and 23 January 2023

**Venue:** Auditorium, MSME Department, MANIT, Bhopal

## Coordinators

### MoES

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### Vijnana Bharati

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## WHO CAN PARTICIPATE?

**S**tudents, educators, scientists and researchers naturally constitute the main target population of the Festival Programmes. It also tries to reach the target population through ambassadors and promoters.

Are you a filmmaker, young scientist, undergraduate /postgraduate student, social organisation, innovator start-up entrepreneur, activist, art enthusiast or practitioner?

If so, come and join the India International Science Festival. Please read the details given in the Events and their eligibility.

## HOW DO THEY BENEFIT?

**T**he theme "Marching Towards Amrit Kaal Through Science, Technology and Innovation" aims to showcase recent achievements in the field everyone is aspiring to see the fast progress of a new India with enthusiasm and impatience.

It aims to provide a platform to young students, scientists and technocrats from across India for exchange of knowledge and ideas in the line of flagship programmes of Government of India. It emphasises on the role of science for masses and science for society.

By participating, you can influence the quality and direction of the standards of your chosen field. You will reap personal and professional rewards.













# STEERING COMMITTEE IISF 2022



**Dr. Jitendra Singh**  
MOS (I/C) M/O S&T & M/o ES  
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Chief Minister of MP  
Chief Patron



**Sh. O.P. Saklecha**  
Minister of S&T, MP  
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PSA to Govt. of India  
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Secretary, MoRD



**Sh. Nikunj Kumar Srivastava**  
Pr. Secretary, MoS&T, Govt. of MP



**Sh. Jayant Sahastrabudde**  
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**Dr. Shekhar C. Mande**  
President, VIBHA



**Prof. Sudhir S. Bhaduria**  
Secretary General, VIBHA



**Sh. Praveen Ramdas**  
Secretary, VIBHA

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