



University of Mumbai

Thane Sub-Campus, Kalyan Centre & Ratnagiri Sub-Campus

In association with

Vijnana Bharati

Organizes

National Virtual Conference on

**Azadi Ka Amrit Mahotsav
Past, Present and Future of Indian Science**

29th & 30th July, 2022

(श्रावण ७ - ८, १९४४)





University of Mumbai

The University of Mumbai (known earlier as the University of Bombay) is one of India's oldest and premier universities (established in 1857) and one of India's first three universities. The University was accorded 5-star status in 2001 and 'A' grade status in April 2012, the National Assessment and Accreditation Council (NAAC). In 2021, the National Assessment and Accreditation Council (NAAC) accredited the University of Mumbai with an A++ grade (3.65/4), and in 2021, the university stood on 71st position in the National Institution Ranking Framework.

The university has 56 Departments, 12 specialized Centres, 781 Affiliated Colleges, two main Campuses, two Sub-Campuses, 2 Model Colleges, and the 'School of Engineering and Applied Sciences' at Kalyan the University's own Engineering College. It has perhaps the largest geographical area under its jurisdiction, from Thane district to Sindhudurg district, a spread of more than 600 km.

ABOUT the Sub-Campuses

Thane Sub-Campus

The Thane Sub-Campus started functioning in 2014, whereas its Kalyan Centre began operations in 2019. The Sub-Campus stands on the foundation of students distinct from the crowd, learning to groom their skills and being trained to their highest potential to meet the requirements of the dynamic corporate world.

The Thane sub-campus offers two Five Year Integrated programmes – Bachelor in Management Studies - Master in Business Administration (BMS-MBA) and Bachelor in Business Administration- Legum Baccalaureus (BBA-LLB (Hons.)).

The Kalyan Centre of the Thane Sub-Campus offers M.Tech. in Computer Engineering and Chemical Engineering and Artificial Intelligence and M.Sc. Materials Science and Zoology (Oceanography). It is a recognized institution for Ph.D. in Computer Engineering and Chemical Engineering.

The in-house and guest faculty – researchers, academicians, and industry practitioners who are specialists in their respective fields – conduct lectures and encourage interactive sessions among students.



Charitrakar Padma Bhushan Dr. Dhananjay Keer Ratnagiri Sub-Campus

Charitrakar Padma Bhushan Dr. Dhananjay Keer Ratnagiri Sub-Campus is decentralization of administrative and academic activities to cater the needs and aspirations of stakeholders of Konkani region affiliated to University of Mumbai. University of Mumbai first expanded to the Ratnagiri Sub-Campus by setting up an administrative office on 5th September 1989. The academic activities at the Ratnagiri Sub-Campus were inaugurated by Hon'ble Shri Manohar Joshi, the then Chief Minister of Maharashtra, on 10th June 1997. At first, the Sub-Campus focused on providing student services. From 15th February 2005, the Sub-Campus began offering need-based academic courses from its premises located at MIDC, Mirjole, Ratnagiri.

Presently, the Ratnagiri Sub-Campus offers PhD in Environmental Science, M.Sc. (by papers) programmes in Environmental Sciences, Chemistry (Organic, Inorganic, Physical, and Analytical), and Oceanography (Zoology). Skill based courses Diploma in Industrial Safety and Management, Certificate course in Aquaculture, Certificate course in Aquaponics are conducted by Sub-Campus. Mumbai University has instituted Lokmanya Tilak Study and Research Centre under which Certificate course in Vedic Mathematics and Certificate course in Astronomy are initiated by Sub-Campus. PhD Courses are proposed to be conducted under the said centre.

Ratnagiri Sub-Campus is a nodal centre of Mumbai University Institute of Distance and Open Learning (IDOL). This nodal centre distributes study material and provide administrative services to IDOL students of Konkani region.

About Vijnana Bharati

This conference (virtual mode) is organized in association with Vijnana Bharati, Mumbai. Vijnana Bharati interlinks ancient wisdom and modern sciences and technology creating a beautiful harmonious blend. It works for the total development of Bharat through the application of science and technology in all possible areas. Vijnana Bharati conducts its activities through 22 independent units and functioning in various parts of Bharat. Taking cognizance of the contribution of Vijnana Bharati in the field of Science & Technology, The Govt. of India awarded the movement with the prestigious and much coveted Nehru-Prize in the year 2007.

About Conference

The University of Mumbai and Vijnana Bharati are celebrating the 75th year of India's Independence under the Azadi Ka Amrit Mahotsav. On this occasion, the University of Mumbai's Thane Sub-Campus, Kalyan Center, and Ratnagiri Sub-Campus are organizing a National Virtual Conference titled "Azadi Ka Amrit Mahotsav - Past, Present, and Future of Indian Science" on July 29th and 30th, 2022.

The National Virtual Conference will address the following three themes:

• *Role of Scientists in India's Struggle for Swatantrata (1757-1947)*

India's freedom struggle was waged on several fronts: political, economic, social, cultural and scientific. Though India gained freedom from the foreign rule 75 year ago, the struggle to regain the 'Swa' in every sphere of life still continues and hence the struggle for 'Swa'tantrata. Indian scientists played a significant role in displaying this 'Swa' in the field of science regardless of the fact that the British left no stone unturned in undermining their work. It is important to understand that British invasion was entirely different from the earlier invasions in India as the British used science and technology to undermine the Indian culture and knowledge systems. They deployed science not only to consolidate and expand their empire but also to exploit the economic resources of our country. They used science as a magical tool to impress Indians to prove their civilizational superiority.

India's scientific community, although was in a nascent stage, the refused to get bogged down by discriminatory and exploitative colonial scientific institutions and revive the glory of Indian science. In response to the intellectually-colonized scientists' undermining the significance of India's past achievements, many patriotic Indians took up the task to study India's past and showed the glorious achievements of India in fields of mathematics, astronomy, chemistry, physics, metallurgy, and medicine. They mobilized indigenous resources and established nationalistic scientific institutions and societies to promote science and technology in India again. Despite several hurdles Indian scientists used various diplomatic tactics to ensure their subtle work against the British and parallelly develop ties with scientists from other countries. While echoing the needs for political representations they also demanded for recognition of Indian scientists on global fora.

● *Scientific Achievements of Post-Independence Bharat (1947-2022)*

Post-independence, India's science has percolated into numerous disciplines of natural science, domains of applied science, and also in multi-disciplinary avenues often merging with disciplines unrelated to science. Independent India had a big task of establishing new scientific institutions, nurturing science diplomatic efforts on bilateral and multilateral levels, carrying out path breaking science, and making all of it relevant to the progress of the nation. One big challenge during the past 75 years has been to look beyond success, fame and awards. Post-independence, India has witnessed tremendous scientific achievements. Many facets of our celebrated achievements are yet unknown and must be shared for future generations. The sessions under this theme will invite review and perspective articles that identify those Indian scientists, scientific institutions and scientific projects that despite being less-recognized have contributed immensely to the nation's progress.

● *Scientific Resolve of Aatmanirbhar Bharat (2022-2047)*

India is now entering the phase, which Hon. Prime Minister Narendra Modi has aptly named as 'Amrit Kaal'. This is the period from 2022 to 2047 when India will celebrate the "Azadi ka Shatak Mahotsav". During this period, India will initiate several scientific undertakings in natural sciences and many of them are transdisciplinary grand challenges.

The Indian Human Spaceflight Programme, the Deep Ocean Mission, the National Supercomputing Mission, the Manav Human Atlas, the National Mission on Quantum Technologies and Applications, Nuclear Fusion, and programs on Indian Traditional Medicine to name a few.

India will continue to contribute to international megaprojects like the International Thermonuclear Energy Reactor, the Thirty Meter Telescope, and the Earth Biogenome Project. However, a resurgent Bharat cannot restrict itself on these current projects. There is a need for Indian scientific and academic institutions to identify scientific megaprojects that will have a lasting positive impact for India during the rest of the 21st century. The sessions under this theme will invite review and perspective articles that attempt to identify new and futuristic science megaprojects that can spin-off from the ongoing research and development activities in India, identify major scientific breakthroughs possible with ongoing Indian megaprojects, recognize new scientific domains that are currently missing in India, and strategize how to accommodate them in state- and central-government run institutions.

The National Virtual Conference invites **well-researched review and perspective articles** (800-1000 words) in Hindi or English on the themes given above. Participants are requested to submit their articles by July 15th, 2022. The articles will be reviewed by a select committee of experts and the best of these articles will be published in reputed publications.



Seminar

Along with hosting the National Virtual Conference on “**Azadi Ka Amrit Mahotsav - Past, Present, and Future of Indian Science**”, the University of Mumbai and Vijnana Bharati will also organize two seminars on the same days (29th and 30th July). The seminar will gather reputed speakers express their views on the following topics:

- Science and Freedom Movement
- Establishing Colonial Hegemony through Science
- Role of Indian Scientists and Resurgence of Indian Ethos and Culture
- Intellectual Colonialism and Freedom Movement
- Swadeshi Industries in Colonial Era
- Achievements of Indian Scientists and its Implication for Political Freedom
- Emergence of Scientific Racism in India and Indian Response
- Impact of Colonialism on Environment/ Sustainable Consumption
- Public Engagement for Development of Scientific Institutions and Societies
- Science Diplomacy and Freedom Movement

The seminar will be held on 29th and 30th July 2022, pre-lunch session between 10:00 am to 01:00 pm. All registered participants will be provided with link of live streaming

Call for Papers

We invite articles, review, research, technical and perspective papers to be published in Conference Proceedings (with ISBN number). The articles should be strictly focus on one of the themes mentioned to commemorate the celebration of Azadi Ka Amrit Mahotsav.

Also, papers are expected to co-relate, compare or deal with the use of Science, Technology and Pharmacy including Ayush (STP) in the present-day context with India contributions. This will inspire our researchers to make India a world leader in a short span thereby the glorious history of STP achievements will be explored to support Atmanirbhar Bharat.

Selected papers presentation (virtual) will be conducted on 29th and 30th July, 2022 (post-lunch session between 02:00 pm to 05:00 pm). For registered participants different and parallel live streaming will be provided in Science, Technology, Pharmacy and Interdisciplinary areas.

Important Dates

- Dates of Conference: **29th & 30th July, 2022.**
- Last date of registration: **27th July, 2022.**
- Last date of Submission of Full-Length Paper: **27th July, 2022.**
- All submissions must be emailed on or before **27th July, 2022.**
- Email ID for conference: muakam-22@mu.ac.in

Registration Fee

- Rs. 500 for Faculty Members / Researchers/ Professionals with Research Paper Presentation.
- Rs. 300 for Research Scholars with Research Paper Presentation.
- Rs. 200 for Additional Authors with Research Paper Presentation.
- Rs. 200 for Attendee without Research Paper Presentation.

Registration Fees includes Virtual entry to the conference, e-certificate of presentation/ participation and e-conference Proceedings with ISBN No.

Bank details for payment of registration fees.

Name of the Institution/Firm: **UNIVERSITY OF BOMBAY GEN FUND I**

Name of Bank: **BANK OF BARODA**

Account No.: **06960100002008**

IFCI Code: **BARB0FORTUN (Fifth character is Zero)**

Type of Account: **SAVING BANK ACCOUNT**

Branch code: **0696**

MICR Number: **400012025**

Bank Swift Code: **BARBINBBFUB**

US\$ Corresponding Bank Swift Code: **BARBUS33XXX**

Branch Address: **Fort University Branch, Fort, Mumbai 400 023.**

Instruction to Authors

We welcome contributions from Indian scholars / researchers by inviting papers which may have interdisciplinary / multidisciplinary perspectives strictly as per the conference theme including AYUSH. The length of the papers should be between 3000 and 5000 words.



Submission Guidelines

- The paper/article should be printed in Times New Roman, Font 12 point size with double spacing. It should be in the MS Word and PDF format.
- Name(s) of author(s) along with author's affiliation and institutional address (in case of more than one author) the name and address of the corresponding author with designation, pin code and email id must be provided.
- 100–150 word Abstract along with 4 to 5 relevant keywords should be a part of the content.
- All notes must be listed as endnotes.
- While submitting the paper, it should be clearly mentioned under which theme/sub-theme the paper falls.
- Papers may be submitted either in English or in Hindi.
- University of Mumbai takes issues of copyright infringement, plagiarism or other breaches of best practice in publication very seriously. Submitted articles may be checked for similarity by standard checking software/s.
- The papers/articles received will be reviewed through a team of eminent Professors and Scientists.

Timeline for the Submission

- Last date of registration / submission of full-length paper: **27th July, 2022.**
- All submissions must be emailed on or before **27th July, 2022.**
- Link for registration <https://forms.gle/t4QLoBwAvUaVx7yt5>
- Email id for conference: muakam-22@mu.ac.in

Seminar Title

Struggle for Swatantrata through Science, Technology and Pharmacy including Ayush (STP)

Seminar Date

29th - 30th July 2022 (श्रावण ७ - ८, १९४४)

Venue

University of Mumbai, Ratnagiri and Thane Sub-Campuses.

Synopsis

India's freedom struggle was waged on several fronts: political, economic, social, cultural and scientific. Though India gained freedom from the foreign rule 75 year ago, the struggle to regain the 'Swa' in every sphere of life still continues and hence the struggle for 'Swa'tantrata. Indian scientists played a significant role in displaying this 'Swa' in the field of science regardless of the fact that the British left no stone unturned in undermining their work. It is important to understand that the British invasion was entirely different from the earlier invasions in India as the British used science and technology to undermine the Indian culture and knowledge systems. They deployed science not only to consolidate and expand their empire, after their first battles in the Bengal Subah, but also to exploit the economic resources of our country. They used science as a magical tool to impress Indians to prove their civilizational superiority and elicit a scientific apartheid on India.

India's scientific community, although was in a nascent stage, refused to get bogged down by discriminatory and exploitative colonial scientific institutions and raise the spirit of scientific nationalism. In response to the intellectually-colonized scientists' undermining the significance of India's past achievements, many patriotic Indians took up revolutionary paths to unshackle the stranglehold over science. They mobilized indigenous resources, they connected economic and scientific activities, and established nationalistic scientific institutions and societies to promote science and technology in India again. Despite several hurdles Indian scientists used various diplomatic tactics to ensure their subtle work against the British and parallelly develop ties with scientists from other countries.

Day 1

29th July 2022

(10:00 am – 01:00 pm)

Inaugural Speech (10:00 am - 10:15 am)

Dr. Srivari Chandrashekhar

Secretary, Department of Science and Technology, Government of India, New Delhi

Speaker	Topic	Time
Prof. Ranjana Aggarwal Director, CSIR, National Institute of Science, Communication and Policy Research, New Delhi.	The British Raj and its Scientific Apartheid on Bharat	10:15 am
Prof. Jayanti Dutta Deputy Director, Human Resource Development Centre, Punjab University, Chandigarh	Emergence of Scientific Nationalism	11:00 am
Shri. Vivekananda Pai Secretary, Vijnana Bharati, Kochi	Chronicles of India's Scientific-Economic Nationalism	11:45 am
Prof. V. Ramanathan Assistant Professor - Chemistry, Indian Institute of Technology-Banaras Hindu University, Varanasi	A Fragrant Story of Self Reliance: The History of Sandalwood	12:30 pm

Selected paper presentations (virtual) between 02:00 pm to 05:00 pm.

Day 2

30th July 2022

(10:00 am – 01:00 pm)

Speaker	Topic	Time
Shri. Jayant Sahasrabudhe National Organizing Secretary, Vijnana Bharati, New Delhi	The Battle of Plassey (1757) and Scientific Exploitation of India	10:00 am
Prof. Rajeev Singh Professor - Inorganic Chemistry, University of Delhi, New Delhi	Revolutionaries of India: Scientists & Freedom Fighters	10:45 am
Dr. Chaitanya Giri Space Domain Consultant, Research and Information System for Developing Countries, New Delhi	Diplomat Scientists: Carriers of India's Global Baton before 1947	11:30 am
Dr. Dilip Peshwe HAG Professor, Visvesvaraya National Institute of Technology, Nagpur	Science and Technology Innovations Towards Atmanirbhar Bharat	12:15 pm
Dr. Madhuri Wagh Professor and Head, Dravyaagun Department, Government Ayurved College, Nagpur.	Status of Ayurved Before Independence	01:00 pm

Selected paper presentations (virtual) between 02:00 pm to 05:00 pm.

Valedictory speech (05:00 pm - 05:15 pm)

Prof. Anil D. Sahasrabudhe

Chairman, AICTE, Vasantkunj, New Delhi.



University of Mumbai

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 www.mu.ac.in

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Register here: <https://forms.gle/t4QLoBwAvUaVx7yt5>

