



Organized by

**Department of Science, Technology & Waste Management, Government of
Goa.**

The Government of Goa through Department of Science, Technology & Waste Management organized an event Manohar Parrikar Vidnyan Mahotsav (MPVM) to honor the Hon'ble Ex-Chief Minister of the State of Goa and Ex-Defense Minister of India, Late. Shri. Manohar Parrikar. This year the 4th Inaugural event was held on 13th of December 2022 at the National Institute of Oceanography, Dona Paula, Goa and 7 other venues across Goa which was attended by 5000 students.



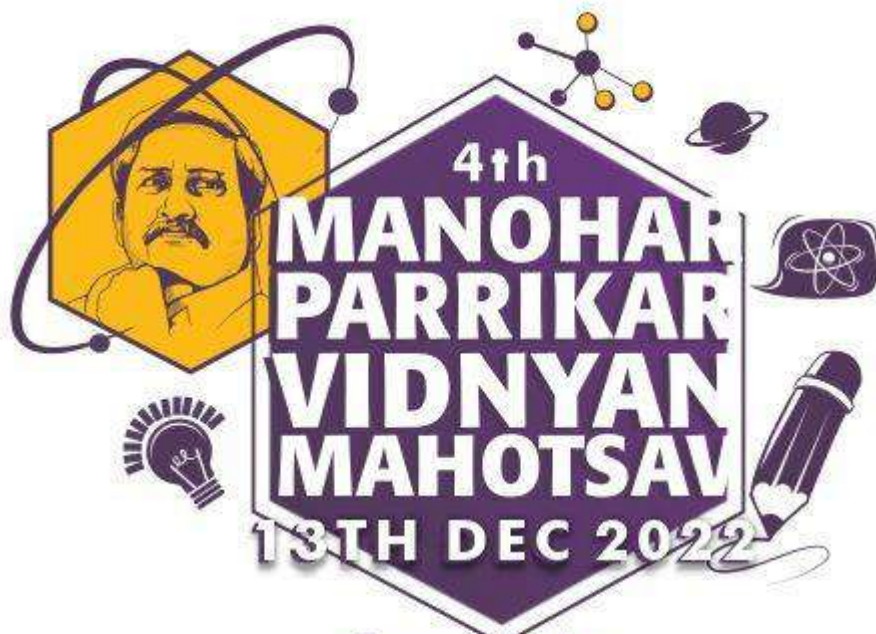
Background:

The State of Goa, hosted a three-day successful event on Nobel Prize series in the year 2018 in collaboration with the Nobel Foundation, Sweden, Sweden Embassy in India, and Department of Bio-technology (DBT), Govt. of India. Four Nobel Laureates Namely Dr. Christianne Nusslein-Volhard, Dr. Searge Haroche, Dr. Tomas Lindahl and Dr. Richard J Roberts participated in the event and interacted through lectures, panel and round table discussion with wide range of stakeholders including students, researches, academicians, industry and general public.

As part of this, a one-month exhibition on Nobel Prize series was also organized by Nobel Media Sweden AB along with DBT, Govt. of India and Department of Science and Technology (DST), Govt. of Goa at the Kala Academy, Panaji. Information panels and working modules on scientific inventions by Nobel Laureates as well the life and scientific contribution of Indian scientists were displayed. The Department of Education, Directorate of Higher Education, Goa University and various research and academic institution helped facilitate visitors to go through the exhibits. Daily special lectures on life of Indian Scientists was also organized as part of Exhibition. Around thirty thousand participants were benefitted.

The event was inaugurated by the then Chief Minister of Goa Late Shri. Manohar Parrikar, a scientific visionary who himself was a graduate from the Indian Institute of Technology (IIT), Mumbai. In his inaugural address, he opined that the Nobel Prize series is an excellent opportunity to meet and interact with scientific luminaries across the globe and learn from them and their research inventions. He announced in his inaugural speech, that Nobel series would be an annual feature in Goa and his government would support organize the same.

The untimely demise of Shri Parrikar in the year 2019, created a void in scientific and political arena. However, his vision and ideas are now being taken ahead by his successor, Dr Pramod Sawant Hon'ble chief minister of Goa. The yearly Vidnyan Mahotsav is the testimony of his commitments and to Honor his commitments the Government of Goa is observing 13th December as Manohar Parrikar Vidnyan Mahotsav.



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Since 2019, Manohar Parrikar Vidnyan Mahotsav has set a glorious tradition of exchanging scientific ideas. Subsequently, The Government of Goa vide Department of Science, Technology & Waste Management has organized this event in the year 2019, 2020, and in 2021, the Event was again organized on 13th of December by the Government of Goa through Department of Science, Technology & Waste Management at the National Institute of Oceanography at Dona Paula. To date around 15000 students have been part of this Mahotsav. Learned minds including Nobel Laureates and scientists of international repute have shared their insights and experience on this platform which include Professor Ada E. Yonath, Professor K. Kasturirangan, Prof Ajay Kumar Sood, Prof. Randeep Guleria, Prof. Padmanabhan Balaram, Prof. Shailesh Naik and many more. This tradition of learning from the brightest minds in India and exchanging ideas to expand scientific knowledge will grow stronger with the passage of time, inspiring future scientists, experts, and policymakers with a scientific temperament.

Event Details:



This year also honoring his commitment, and taking his scientific vision forward, the Government of Goa, decided to organize a One-day scientific event to commemorate his birth anniversary on the 13th of December, 2022 under the banner ‘Manohar Parrikar Vidnyan Mahotsav’. The event was held through the Department of Science and Technology and Waste Management. The Government has approved Pattern of Assistance for undertaking the Manohar Parrikar Vidnyan Mahotsav annually, which is organized through Goa Waste Management Corporation.

Lecture Seminars and interactive sessions were held at Eight different venues across the State on the 13th of December as part of enlightening school children across the State on various Scientific topics. The programme was conducted simultaneously at 8 different venues. Inaugural Event will be held at NIO, Dona Paula and First Lecture was given by Prof. Brett which was common and the event was streamed live social media across 7 other venues and also on YouTube and Facebook Live for wide spread viewership of audience across the State:

- i. Ravindra Bhavan, Sankhali.
- ii. Birla Institute of Technology and Science, Pilani, Zuari Nagar, Vasco.
- iii. Government College, Pernem, Goa.
- iv. Government College of Arts, Science and Commerce, Quepem – Goa
- v. Government Higher Secondary School, Canacona – Goa.
- vi. Rajiv Gandhi Kala Mandir, Ponda, Goa.
- vii. Don Bosco College of Engineering, Fatorda, Margao – Goa.

The event was proudly supported by the following organizations:

- 1) Directorate of Higher Education
- 2) Directorate of Education
- 3) Directorate of Technical Education
- 4) Department of Information and Publicity
- 5) Goa State Pollution Control Board (GSPCB)
- 6) Goa State Innovation Council
- 7) Goa Waste Management Corporation (GWMC)
- 8) Goa Tourism Development Corporation (GTDC)
- 9) Centre for Environment Education (CEE-Goa)
- 10) Goa University (GU)

The following organizations were also appointed as the technical advisors for the event:

- 1) CSIR-National Institute of Oceanography, Dona-Paulo, Goa.
- 2) Indian Institute of Technology, Goa.
- 3) Birla Institute of Technology & Science, Pilani-Goa Campus.
- 4) National Institute of Technology, Goa.

The Manohar Parrikar Vidnyan Mahotsav 2022 event was set into motion on 13th December 2022, with the inaugural session at 09:30 am in the auditorium of the National Institute of Oceanography, Dona Paula. The esteemed guests which included the Hon'ble Chief Minister of Goa, Dr. Pramod Sawant, Hon'ble Minister for Science, Technology and Waste Management, Shri. Atanasio Monserrate, The Chief Secretary of the State, Shri Puneet Kumar Goel, IAS, Shri. Jose Manuel Noronha, Chairman Goa Public Service Commission & Chairman of the executive committee for the Manohar Parrikar Vidnyan Mahotsav, Secretary for Science,

Technology and Waste Management, Shri. Ramesh Verma, IAS, Dr. P S Goel, Former Secretary, Department of Ocean Development, MoES, Govt of India, Prof. Christopher Brett, Professor, University of Coimbra, Portugal, Prof. Raghavendra Gadagkar, Professor, IISC, Bengaluru, Corporation of the City of Panjim, Mayor, Shir. Rohit Monserrate, Dr. Gopal Mugeraya, Director NIT-Goa & Dr. Sunil Singh, Director NIO & Dr. Sunil Singh, Director NIO arrived at the Venue and were warmly welcomed into the auditorium.

Then, Shri. Jose Manuel Noronha, Chairman, Goa Public Service Commission and Goa State Innovation Council and also the Chairman, of the executive committee MPVM, extended his warm welcome to the dignitaries and audience followed by the welcoming of dignitaries with a brief address note about the Manohar Parrikar Vidnyan Mahotsav (MPVM).



Shri. Jose Manuel Noronha, welcoming the dignitaries and the audience with a brief address note about the Manohar Parrikar Vidnyan Mahotsav 2022

He also elaborated on how Manohar Parrikar Vidnyan Mahotsav was envisaged and also briefly touched upon the previous editions of the Manohar Parrikar Vidnyan Mahotsav. He then requested to play a commemorative video/film on Late Shri. Manohar Parrikar.

The dignitaries were then escorted for the Lighting of the Lamp which was done at the auspicious hands of Hon'ble Chief Minister of Goa Dr. Pramod Sawant, Hon'ble Minister for Science, Technology and Waste Management, Shri. Atanasio Monserrate, in the presence of Chief Secretary, Shri Puneet Kumar Goel, IAS, Shri. Jose Manuel Noronha, Shri. Ramesh Verma, IAS, Dr. P S Goel, Former Secretary, Department of Ocean Development, MoES, Govt of India, Prof. Christopher Brett, Professor, University of Coimbra, Portugal, Prof. Raghavendra Gadagkar, Professor, IISC, Bengaluru, Corporation of the City of Panjim, Mayor, Shir. Rohit Monserrate, Dr. Gopal Mugeraya, Director NIT-Goa & Dr. Sunil Singh, Director NIO, to mark the auspicious beginning of the event in memory of the Hon'ble Ex-CM towards a bright and intelligent future of the State.



Lighting of the Lamp at the auspicious hands of Hon'ble Chief Minister of Goa Dr. Pramod Sawant, Hon'ble Minister for SNT&WM, Shri. Atanasio Monserrate, in the presence of Chief Secretary, Shri Puneet Kumar Goel, IAS, Shri. Jose Manuel Noronha, Shri Ramesh Verma, IAS, Dr. P S Goel, Former Secretary, Department of Ocean Development, MoES, Govt of India, Prof. Christopher Brett, Professor, University of Coimbra, Portugal, Prof. Raghavendra Gadagkar, Professor, IISC, Bengaluru, Corporation of the City of Panjim, Mayor, Shir. Rohit Monserrate, Dr. Gopal Mugeraya, Director NIT-Goa & Dr. Sunil Singh, Director NIO & Dr. Sunil Singh, Director NIO.

The dignitaries were then escorted on to the dais by Dr. Sunil Singh, Director NIO and Dr. Levinson Martins Director (S&T&WM & MD GWMC) where they assumed their respective places on the dais which was promptly followed by a floral welcome.



Floral welcome of the dignitaries on the Dais.



A glimpse of audience participation at NIO, Dona-Paulo.



A glimpse of audience participation at NIO, Dona-Paulo.



A glimpse of audience participation at NIO, Dona-Paulo.

The gathering was welcomed by Dr. Sunil Singh, Director, NIO-CSIR. who extended his warm welcome to all the dignitaries present at the Venue and also welcomed the audience and he also expressed his delight to celebrate the Life of late Shri. Manohar Parrikar through this Scientific event.



Dr. Sunil Singh, Director, NIO-CSIR delivering his welcome address.

Further the gathering was addressed by Shri. Puneet Kumar Goel, (IAS) Chief Secretary Govt. of Goa. He highlighted the achievements of Ex-chief Minister late Shri. Manohar Parrikar in the field of Science of Technology in Goa. He also highlighted the importance of Science and Technology in everyday life and encouraged young students to develop scientific temper towards prosperity of this nation and gain maximum knowledge from this event.



Puneet Kumar Goel, (IAS), Chief Secretary delivering his address.

The Hon'ble Minister for Science and Technology & Waste Management spoke of the various initiatives by the Department of Science and Technology & Waste Management and also of the great initiatives taken by the Hon'ble Ex-Chief Minister of the State of Goa, late. Shri. Manohar Parrikar towards development of the state of Goa.

He expressed that the Department of Science and Technology & Waste Management has taken forward the scientific vision of late. Shri. Manohar Parrikar, by providing various schemes and initiatives to encourage young minds of the Country. He also updated the audience on the status of various present and upcoming waste treatment facilities in Goa. He also dwelled on the schemes of the Dept. Of Science & Technology and Waste Management on popularizing Science & Technology and Innovation.



The then Hon'ble Minister for Science, Technology and Waste Management, Shri. Atanasio Monserrate delivering his welcome address

The Hon'ble Chief Minister, Dr. Pramod Sawant then addressed the gathering in which he spoke about the dedication and greatness former Chief Minister of the State of Goa and Defense Minister of India, late. Shri. Manohar Parrikar. He Congratulated the Department of Science, Technology and Waste Management for

meticulously planning this Scientific Event and getting such great Scientist of international repute to deliver lectures at different venues in Goa so that Goan Students can benefit from their experience in field of Science and Technology. He welcomed all the Speakers in Goa.



Dr. Pramod Sawant, Hon'ble Chief Minister of Goa, delivering his welcome address

On a closing note, he mentioned in that late Shri. Manohar Parrikar will always remain in the minds of the Goans students. He then expressed gratitude to the organizers for taking this initiative to extend the Scientific Vision of late. Shri. Manohar Parrikar. He then concluded his address by appealing to all school, High Secondary Schools and colleges to visit all the various Science and Technology projects setup in the State so that the students to develop liking in science and technology so that the State of Goa to become the Scientific Hub of the Nation. Hon'ble Chief Minister, Dr. Pramod Sawant also announced to give the young Manohar Parrikar Scientist Award to Scientist from across India. This award will consist of sum of rupees 5 lakhs and this award will be annually given for scientists of 35 years old and below from next year onwards at this function.

The dignitaries were then presented with a memento as a token of appreciation for their efforts by Shri. Jose Manuel Noronha, Chairman, of the Executive Committee MPVM.



Shri. Jose Manuel Noronha presenting a Memento to Dr. Pramod Sawant, Hon'ble Chief Minister of Goa

The conclusion of the inaugural event was marked by Shri. Jose Manuel Noronha, Chairman, of the executive committee MPVM, presenting the dignitaries on the dais with a memento and vote of thanks was given by Shri Ramesh Verma, (IAS), Secretary, Department of Science and Technology & Waste Management. This was the end of the inaugural session.



Shri Ramesh Verma, (IAS), Secretary, SNT&WM, delivering Vote of Thanks



Shri. Jose Manuel Noronha, Chairman, of the executive committee MPVM then commenced the Technical Session by welcoming the first Lecturer. Dr. Sujeet Kumar Dongre, Scientist F (CEE) assumed his role as the Moderator

The First Lecture was an online session by Professor, Christopher Brett, from the University of Coimbra, Portugal which was common and streamed online at all the 7 different Venues across Goa. He addressed the gathering about the fantastic world of the chemical elements. Prof. Christopher Brett began by expressing his gratitude to the organizers of the event and also stated how this was an important event in molding young minds by grasping their attention and with scientific events like this. He then explained the various aspects of metal gold and different elements of periodic table and also spoke about the advancements and research of science in the field of Chemistry.



Prof. Christopher Brett, Professor, University of Coimbra, Portugal delivering a lecture on The Fantastic world of the Chemical elements at NIO.

Shri. Sujeet Kumar Dongre, then relayed the questions from Students to the Guest Speaker during the Question and Answer (Q&A) session. The Q&A session concluded the first lecture.

This was followed by the Second Lecture by Prof. P. S. Goel, Former Secretary, Department of Ocean Development, MoES, Govt of India at NIO and offline Lectures by respective lectures at all the 7 different venues across Goa.



Prof. P. S. Goel, Former Secretary, Department of Ocean Development, MoES, Govt of India delivering a lecture on Science Technology in the Society at NIO.

And the last technical lecture was delivered by Prof. Raghavendra Gadagkar, from IISC, Bengaluru. He enlightened the gathering about SCIENCE FOR ALL: How to Do Cutting Edge Research on A Shoestring Budget at NIO.



Prof. Raghavendra Gadagkar, from IISC, Bengaluru delivering a lecture on SCIENCE FOR ALL: How to Do Cutting Edge Research on A Shoestring Budget at NIO.

This live session was then followed by a Question-and-Answer Session moderated by Mr. Sujeet Dongre.

Shri. Jose Manuel Noronha, Chairman, of the executive committee MPVM, then took to the podium and summarized the technical session recapping the two lectures and further expressed his gratitude to the speakers for taking time and effort to make this event successful. He also thanked the Advisory Committee and the organizing team for fruitfully organizing this Event. He lastly thanked the Govt. of Goa and expressed gratitude to the organizing this Scientific Event. The vote of thanks marked that successful conclusion of the Manohar Parrikar Vidnyan Mahotsav 2022 edition.

For maximum outreach this event was also live streamed on online social media platforms such as Facebook, YouTube and electronic print media for online viewership for interested viewers across the State from National Institute of Oceanography (NIO) in Dona Paula and further live streamed at 7 other locations across the State which was attended by approx. 5000 students:

1. Don Bosco College of Engineering, Margao.
2. Goa Vidyaprasarak Mandal's College of Education and Higher Secondary College.
3. Government College of Arts, Science and Commerce, Quepem.
4. Government College of Arts and Commerce, Pernem.
5. Government Higher Secondary, Canacona.
6. Government College, Sanquelim.
7. Birla Institute of Technology and Science, Pilani, Zuarinagar.

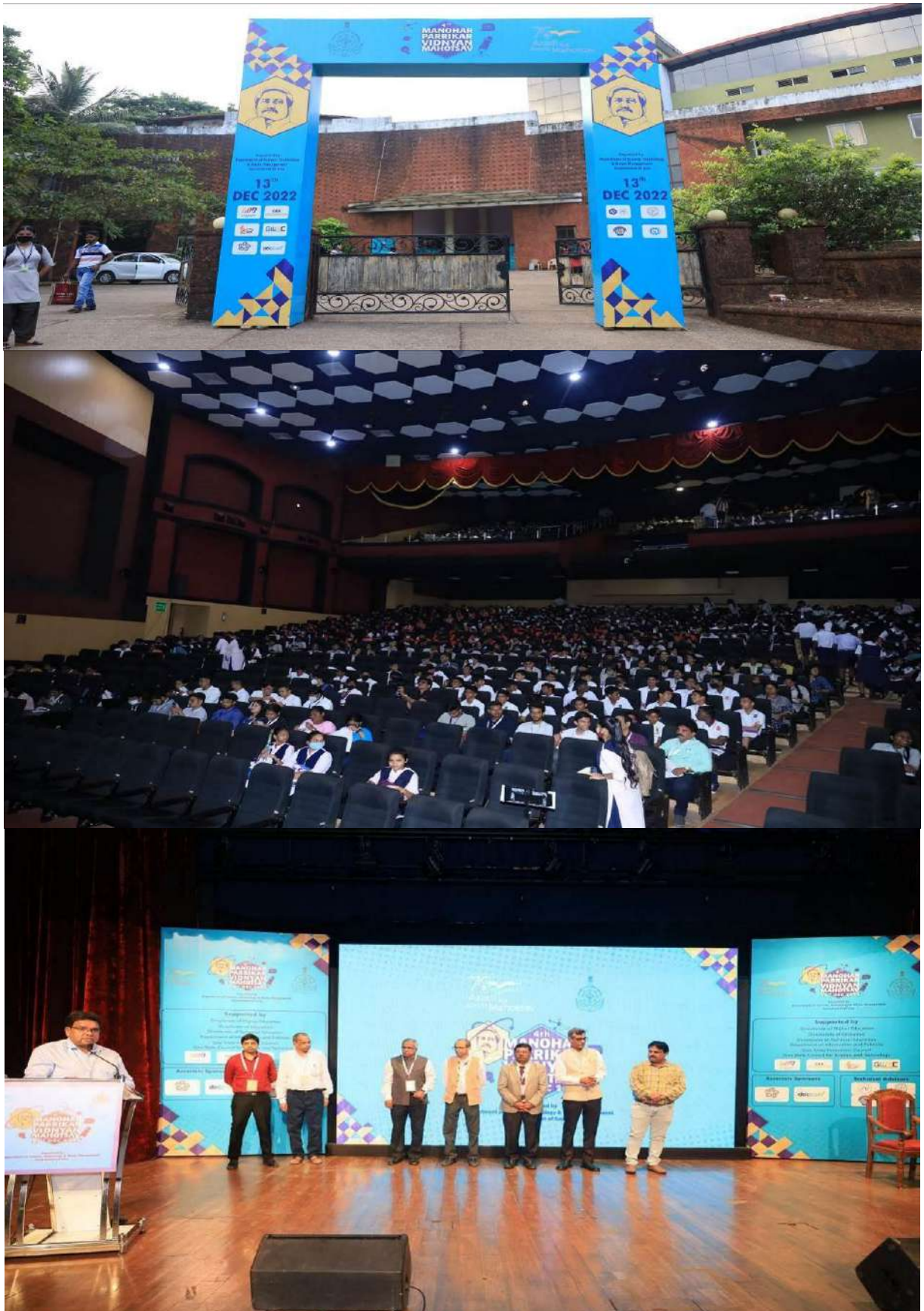
Details of Speakers with Designation, Lecture Title and Venue,

Sr. No	List Of Speakers	Designation	Topic of lecture	Venue	Time of lecture
1	Prof. Dr. Christopher Brett	Professor, University of Coimbra, Portugal	The Fantastic world of the Chemical elements	National Institute of Oceanography, Dona Paula.	10:35am - 11:20 am
2	Prof. P. S. Goel	Former Secretary Department of Ocean Development, MoES, Govt of India	AI Accelerating our digital future		11:25am-12:05 pm
3	Prof. Raghavendra Gadagkar	Professor, IISC, Bengaluru	SCIENCE FOR ALL: How to Do Cutting Edge Research on A Shoestring Budget		12:10pm-1:00 pm
4	Dr. Tessy Thomas	Director General, Aeronautical Systems, DRDO	Advances in Aerospace Technologies	Don Bosco College of Engineering, Margao	11:25am-12:05 pm
5	Prof. Arindam Ghosh	Professor, Department of Physics, IISC, Bengaluru	Making technology with atomic layers		12:10pm-01:00 pm
6	Dr. Ashish Lele	Director, National Chemical Laboratory, Pune	Green Hydrogen for India's Green future	Rajiv Gandhi Kala Mandir, Ponda	11:25am-12:05 pm
7	Prof. B. S. Janagoudar	Former-Vice Chancellor, University of Agricultural Sciences, Dharwad	Mile Stone in Agricultural Development and Prospects of Agricultural Education in India		12:10pm-01:00 pm
8	Dr. Parvinder Maini	Scientific Secretary, Office of Principle Scientific Advisor to GOI	Internet of Things: Making Dumb Machines Smart	Govt. College of Arts, Science and Commerce, Quepem.	11:25am-12:05 pm
9	Prof. M.K. Janarthanam	Former Senior Professor of Botany, Goa University	Plants, People and the Planet		12:10pm-01:00 pm
10	Dr. S. Chandrashekhar	Secretary, Department of Science & Technology, GoI	Science: Stone Age to Gen Alpha	Govt. College of Arts and Commerce, Pernem	11:25 am-12:05 pm
11	Prof. V.K. Singh	Rahul and Namita Gautam Chair Professor, Department of Chemistry, IIT Kanpur	Organic Chemistry and Human Well being		12:10pm-01:00 pm
12	Dr. Purnima Jalihal	Head of Energy & Fresh Water, NIOT, Chennai	Ocean Technologies for energy. Water and coastal protection	Government Higher Secondary, Canacona	11:25am-12:05 pm
13	Dr. Sindura Ganapathi	Visiting PSA Fellow, PSA to GOI	Role of Science and Technology: Career opportunities, One Health, and societal change		12:10pm-01:00 pm
14	Prof. Anil Bhardwaj	Director Physical Research Laboratory (PRL), Ahmedabad	Indian Planetary and Space Missions	Ravindra Bhavan, Sankhalim	11:25am-12:05 pm
15	Prof. Tapas Kundu	Head of Transcription and Disease Laboratory, JNC, Bengaluru	Epigenetics, life beyond gene sequence: Implications in health and disease		12:10pm-01:00 pm
16	Prof. V. Kamakoti	Director, IIT - Madras	Research and Education in Emerging and Disruptive Technologies	BITS Pilani, K K Birla, Goa Campus, Zuari Nagar	12:10pm-01:00 pm
17	Dr. Andrea Colaco	Senior Staff Software Engineering Manager, Google, USA	AI Accelerating our digital future		11:25am-12:05 pm

Glimpses of the event at 7 Other venues:



Don Bosco College of Engineering, Margao.



Rajiv Gandhi Kala Mandir, Ponda.



Government College of Arts, Science and Commerce, Quepem



Government College of Arts and Commerce, Pernem



Government Higher Secondary, Canacona



Government College, Sanquelim



Birla Institute of Technology and Science, Pilani, Zuarinagar.



Dr. Andrea Colaco, Senior Staff Software Engineering Manager, Google, USA, giving her online lecture on AI Accelerating our digital future at BITS Pilani Goa Campus.



The MPVM Organizing Team 2022 at NIO, Dona Paula

Thank you