

“Vigyan Sarvatra Pujyate: Festival of SCoPE for All”

22-28 February 2022

Event organizer: Pt. Ravishankar Shukla University, Raipur, Chhattisgarh

Venue: Pt. Deen Dayal Upadhyaya Auditorium, Raipur, Chhattisgarh

Coordinator: Prof Keshav Kant Sahu, Head of the Department, School of Studies in Biotechnology, Pt. RSU, Raipur

On the occasion of **75th Year of India's Independence**, "**Azadi Ka Amrit Mahotsav**", a week-long celebration was witnessed at 75 locations across the India, in addition to a mega science festival in New Delhi. A week long Science Fest was held at Pt. Ravishankar Shukla University, Raipur, Chhattisgarh, one of the 75 locations across the country.

Pt. Ravishankar Shukla University, Raipur, Chhattisgarh, organised the event "**Vigyan Sarvatra Pujyate: Festival of SCoPE for All**", as part of this event, which began on February 22, 2022, and ended on February 28, 2022. The event was held at Pt. Deen Dayal Upadhyaya Auditorium, Raipur, Chhattisgarh. Throughout the week-long science festival, various programmes were organized to perceive interactions at various levels, including posters, exhibitions, lectures, hands-on experiments, and science lit activities such as visit to science expo, competitions, science live demonstrations, science films, and rallies. The events were divided into two sessions each day and included lectures from eminent scientists as well as science-based competitions. Through extremely interactive and informative sessions, the goal of the week-long science festival was to provide participants with much-needed insight into the advancement of science and its opportunities for the development of society and nation. The event drew a total of 1100 students from various schools, 2800 students from higher education, and including around 600 general public who attended the various sessions held during the one-week science fest.

Inaugural Session: 22 February 2022

A week long science festival event began with the live streaming (03:40 p.m. to 04:40 p.m.) of the grand Inaugural Ceremony of "**Vigyan Sarvatra Pujyate: Festival of SCoPE for All**" held at Vigyan Bhawan, New Delhi, commemorating the 75th year of India's Independence, with the theme: **Integrated Approach for Sustainable Development**. The session moved closer to the Inaugural Function at 5:00 p.m., with the arrival of the invited guests and their

visit to the science expo at Pt. Deen Dayal Upadhyaya Auditorium, Raipur, Chhattisgarh. Through 150 posters, the science lit activity- science expo showcased the discoveries and contributions of eminent scientists to the field of science and technology. The program began with the National Anthem and Kulgeet of Pt. Ravishankar Shukla University, Raipur, Chhattisgarh, and was followed by Lamp Lightning and Felicitation of Guests. Dr M.K. Deb, Professor, School of Studies in Chemistry, Pt. Ravishankar Shukla University, Raipur, Chhattisgarh, discussed about the accomplishments of the University in the research and extension of science. He shed light on the memorable dates of the foundation day, the opening of the teaching departments, and also informed about Pt. Sundarlal Sharma Library, which has one of the 16 Workstations in the country to have Workstation Census of India. He also highlighted the best practices and contributions of Pt. Ravishankar Shukla University, Raipur, Chhattisgarh.

The program further succeeded with an address by program coordinator Prof. Keshav Kant Sahu, Head of the Department, School of Studies in Biotechnology, Pt. Ravishankar Shukla University, Raipur, Chhattisgarh. He gave a brief description about the events to be held in this week long science festival. President of this function Prof. Keshari Lal Verma, Vice-Chancellor, Pt. Ravishankar Shukla University, Raipur, Chhattisgarh, presided over the function. Then, address was delivered by the Guest of Honor, Dr. Rajendra Singh Sangwan, Director, Academy of Scientific & Innovative Research, CSIR-HRDC, Ghaziabad, Uttar Pradesh. He highlighted about the previous scientific contributions by Dr. C.V. Raman, Sir G. Mendel, Sir Darwin and several others. Following that, the event was addressed by the Chief Guest of the function, Ms. Anusuiya Uikey Madam, Hon'ble Governor of the Chhattisgarh State. Madam Governor congratulated the organizing committee of the Pt. Ravishankar Shukla University, Raipur, Chhattisgarh, for this mega event and also praised for the University's ongoing research and development activities.

The Chief Guest, Ms. Anusuiya Uikey Madam, and the Guest of Honor, Dr. Rajendra Singh Sangwan Sir were then presented with memento by Prof. Keshari Lal Verma, Vice-Chancellor, Pt. Ravishankar Shukla University, Raipur, Chhattisgarh. The vote of thanks was then given by Prof. G.K. Pandey, Registrar, Pt. Ravishankar Shukla University, Raipur, Chhattisgarh. More than 1,000 people attended the inaugural event, which included students from various schools, higher education departments, and civil population.

Glimpses of the Inaugural Function



**Chief Guest Ms. Anusuiya Uikey, Hon'ble Governor of the Chhattisgarh State
Inaugurating the Poster Exhibition Section**



**Guests are visiting science expo which featured more than 150 posters related to Science
and Technology**



Remarks by Dr. Rajender Singh Sangwan, the Guest of Honour



Address by Prof. Keshav Kant Sahu, Program Coordinator

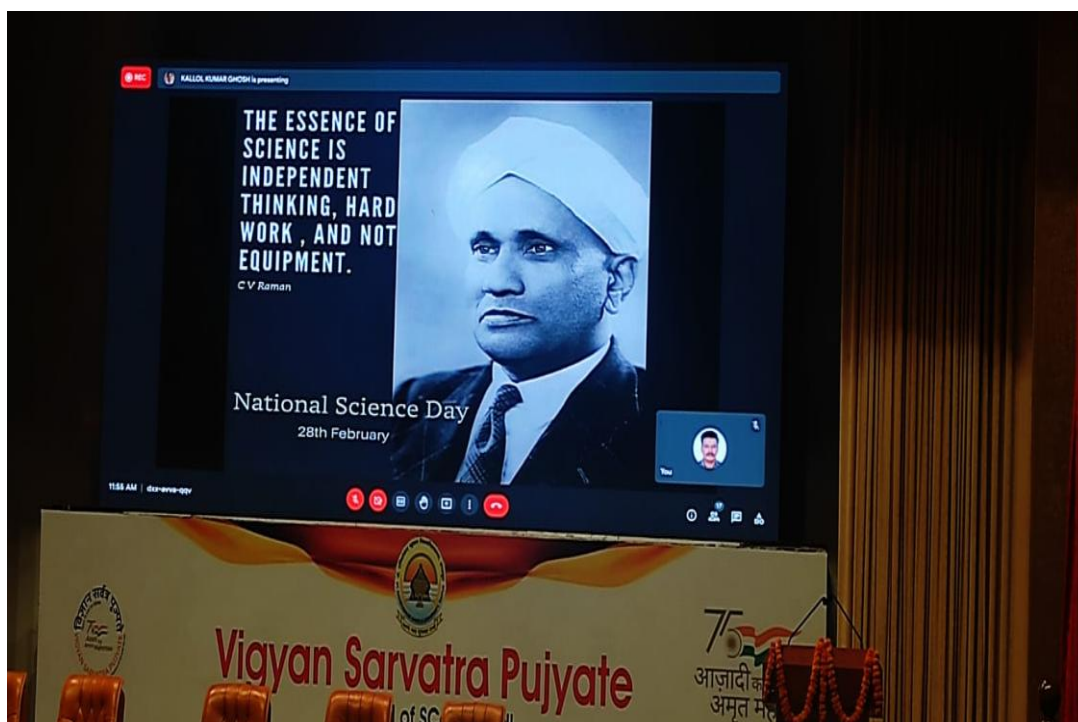


Hon'ble Chief Guest Ms. Anusuiya Uikey Presenting a Memento to the Guest of Honour

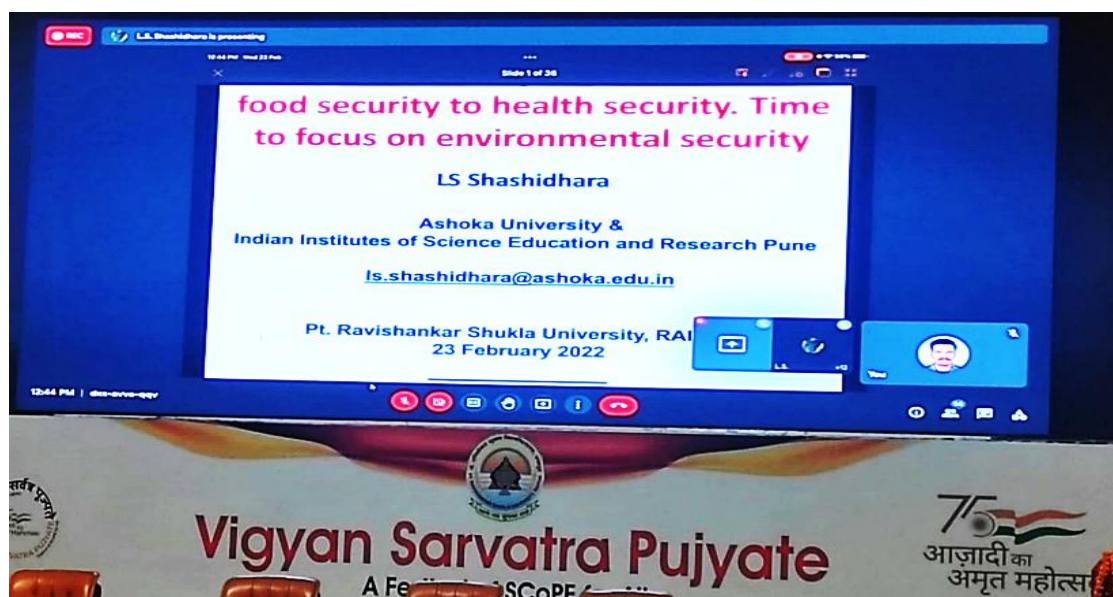
Day 1: 23 February 2022

The science week festival began on the first day at Pt. Deendayal Upadhyaya Auditorium, Raipur, Chhattisgarh. The event was held in two sessions, which included two lectures and two competitions. Prof K.K. Ghosh, Director, Centre for Basic Science, Pt. Ravishankar Shukla University, Raipur, Chhattisgarh, gave a lecture on "Integration of Science and Technology for Sustainable Development", during the first session (11:30 a.m. to 12:30 p.m.). Prof. Ghosh began his lecture by involving the audience with a quote such as "Breaking Boundaries, Finding Frontiers", "Tomorrow's Science Begins Today", etc. Sir C.V. Raman, Sir, J.C. Bose, Albert Einstein, Marie Curie, and other scientist's discoveries were highlighted by him. He emphasised the importance of students sharing and interacting with their respective mentors ideologies. He also advised the youth to stay focused on the resources they have and utilise them to their fullest.

On the same day (12:30 p.m. to 01:30 p.m.) another lecture was delivered by Prof. L.S. Sashidhara, Dean, Ashoka University, Sonipat, Haryana, on "Science & Technology since Independence: From Food Security to Health Security; Time to Focus on Environmental Security". Prof. Sashidhara has highlighted various scientific and technological advancements from 1947 to 2022. He has emphasised the importance of India's prestigious national institutes, such as the IITs, IISc, and IARI, etc., in the modern economy.



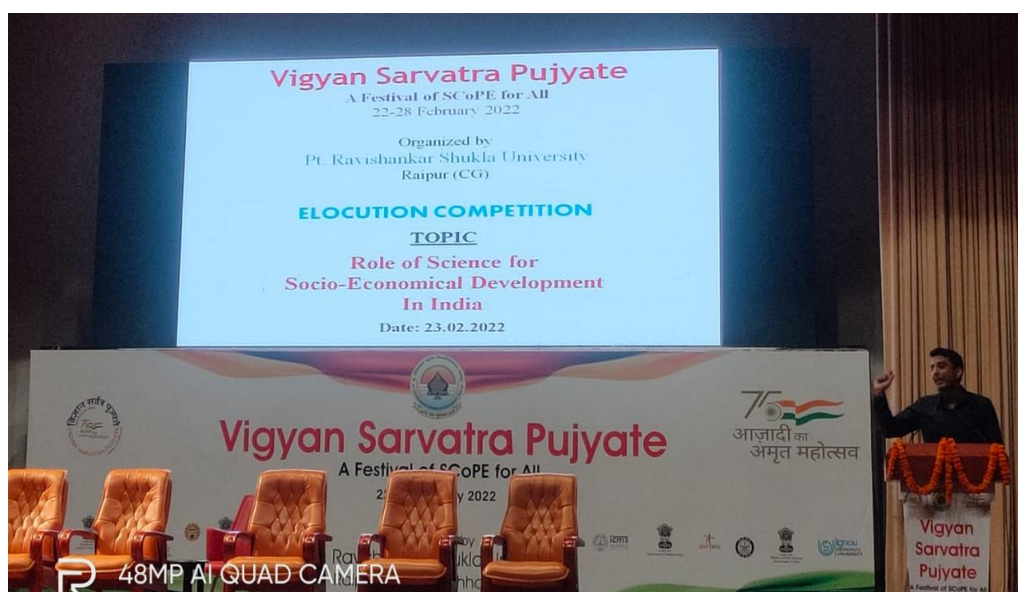
Prof. K.K. Ghosh's lecture on "Science and Technology Integration for Sustainable Development"



Prof. L.S. Sashidhara's lecture on "Science & Technology since Independence: From Food Security to Health Security; Time to Focus on Environmental Security"

Elocution and extempore competitions were held in the second session. On the topic "Role of Science in Socio-Economic Development in India," an elocution competition was held. Each participant had three minutes time to give a speech on the assigned topic. A total of 17 students from various schools, colleges, and institutes were competed in the

competition. Participants brilliantly and confidently communicated their thoughts, insights, and different perspectives. The competition was judged by Dr. Priti Singh, Assistant Professor, Institute of Teachers Education, Pt. Ravishankar Shukla University, Raipur, Chhattisgarh, Dr. Swati Shrivastava, Assistant Professor, Pragati College, Raipur, Chhattisgarh and, Dr. D.P. Bisen, Head of the Department, School of Studies in Physics and Astrophysics, Pt. Ravishankar Shukla University, Raipur, Chhattisgarh. The succeeding competition was an extempore, in which a total of 20 participants shared their perspectives on topics such as "advanced transportation," "the role of science and technology in food processing," "solar energy," "ethanol for energy," "cloud computing technology," and so on. The judges for the extempore included Prof. Ninad Bodhankar, School of Studies in Geology and WRM, Pt. Ravishankar Shukla University, Raipur, Chhattisgarh, Prof. N.K. Baghmar, Ex-Professor of School of Studies in Geography, Pt. Ravishankar Shukla University, Raipur, Chhattisgarh and, Dr. Govind Sahu, Assistant Professor, Centre for Basic Sciences, Pt. Ravishankar Shukla University, Raipur, Chhattisgarh. Dr. A.K. Singh, Assistant Professor, Institute of Teachers Education, Pt. Ravishankar Shukla University, Raipur, Chhattisgarh, was the coordinator of this competition. A vote of thanks was given by Dr. Amber Vyas, Assistant Professor, Institute of Pharmacy, Pt. Ravishankar Shukla University, Raipur, Chhattisgarh. The first day of the science festival came to an end with this. In total, 150 students from various schools, 300 students from the higher education department, and 50 general public attended the event.



Elocution competition on the topic “Role of Science for Socio-Economic Development in India”



Participant in an Extempore competition

Day 2: 24 February 2022

The second day of the science festival began with a wonderful lecture (11:30 a.m. to 12:30 p.m.) on "New World New Prospects Space Science Exploration" by Dr. Shyama Narendranath, Scientist SF, UR Rao Satellite Centre, ISITE Campus, Indian Space Research Organization, Bangalore, Karnataka. Dr. Shyama gave an excellent lecture on space science. She has talked about Laplace theory, the rationale origin of the earth, the passing star hypothesis, the formation of the solar system, and its application in planetary science. She spoke about the difficulties that come with space instrumentation. The space instrumentation must be able to withstand extreme temperatures, vacuum, vibration, and should be error-free. Also, mentioned about some of the Indian space astronomy missions such as SROSS Series, IRS-P3, SOXS, RT-2 on photon-coronas mission, and ASTROSTAT. She had captivated the audience's interest by presenting attractive pictures of celestial bodies like asteroids, comets, planets, etc. She recommended the youth to develop analytical as well as experimental skills to be able to explore the science behind space.

On the same day, another lecture (12:30 p.m. to 01:30 p.m.) was delivered by Prof. R.C. Dubey, Head of the Department, Department of Biotechnology, Gurukul Kangri University, Haridwar, Uttarakhand, on "Making the Future of India through Science". Prof. Dubey has brought up a number of interesting facts about science in our daily lives. He shed

light on Sanskrit and Vedic microbiology and its relationship to human lives since ancient times. Prof. Dubey also discussed the science behind the importance of the "Gangajal", which has several health benefits. He has emphasised the importance of integrating India's knowledge system, as well as its various cultures and traditions, for the benefit of humanity. He encouraged young people to focus on the practical rather than the theoretical aspects of their studies. He termed the "Vedic Rishis" as the traditional scientists of India. Prof. Dubey also discussed how the country can progress through science.

Shyama Narendranath is presenting

The rise of planetary program in India

- Study of extra terrestrial samples – TIFR, IIT_Kanpur, PRL (1960s – 1980s)
 - Cosmic ray tracks in meteorites
 - Solar ion tracks in lunar samples and meteorites
 - Trapped gases
 - >100 publications
- Planetary astronomy - IIAP
 - Discovery of ring systems of Uranus (Bhattacharya & Bappu, 1977)
 - Observations of comets and asteroids (6 new asteroids discovered)

Prof Narendra Bhandari receiving Luna-24 samples in 1977

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Lecture by Dr. Shyama Narendranath on "Space Research and Exploration"

presenting

PowerPoint Slide Show - [Students_Motivational Lecture - Rajpur] - PowerPoint

Integration of Indian Knowledge System (teaching in Indian Language, culture)

- Institutions must make strategy regarding the integration of the Indian Knowledge System (teaching in Indian Language, culture etc.,) into the curriculum using both offline and online courses.
- The faculties must be trained to provide the classroom delivery in bilingual mode (English and vernacular).
- The institutions must preserve and promote the following:
 - Indian languages (Sanskrit, Pali, Prakrit and classical, tribal and endangered etc.)
 - Indian ancient traditional knowledge
 - Indian Arts
 - Indian Culture and traditions

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Turn on microphone (ctrl + d)

Lecture by Prof. R.C. Dubey on "Making the Future of India through Science"

Prof. Sanjay Tiwari, Head of the Department, School of Studies in Renewable Energy and Technology, Pt. Ravishankar Shukla University, Raipur, Chhattisgarh, and his group continued the event in the second session at 02:30 p.m. with hands on training cum workshop on making Solar Lamp. "Sustainable Development Goals" was the topic of his discussion. Prof. Tiwari gave a brief overview of the solar energy's discovery and his goal of making the world carbon-free by 2050. His speech was followed by round 1 of the quiz competition, which consisted of 15 questions, each lasting 30 seconds. The event drew a total of 64 participants from various schools, colleges, and institutes. A video presentation demonstrated hands-on training on how to make a solar lamp. Then, a second round of the quiz competition was held with 67 participants. Three top winners of both the Quizzes rounds were honoured by Prof. Keshari Lal Verma, Vice-Chancellor, Pt. Ravishankar Shukla University, Raipur, Chhattisgarh, Prof. Keshav Kant Sahu, Head of the Department, School of Studies in Biotechnology, Pt. Ravishankar Shukla University, Raipur, Chhattisgarh and Coordinator of this program, and Prof. Sanjay Tiwari, Head of the Department, School of Studies in Renewable Energy and Technology. Pt. Ravishankar Shukla University, Raipur, Chhattisgarh. Following that, students practised making of the solar lamps. Total participation on second day of the fest included 100 students from various schools, 450 students from higher education department and 50 general public audience.



Dr. Sanjay Tiwari demonstrating the working of Solar lamp

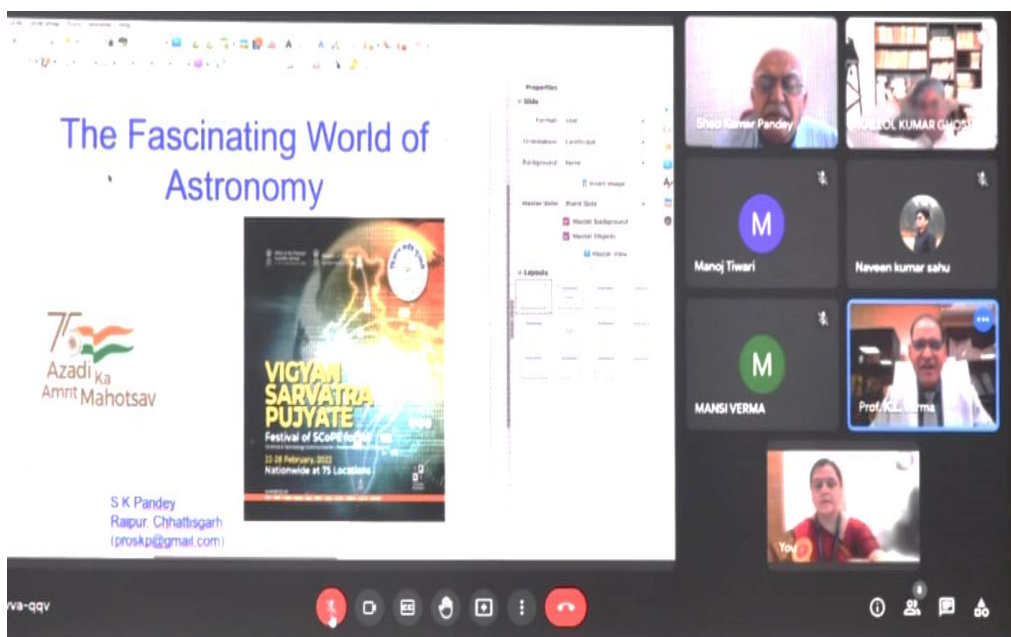


Hands on Training *cum* Workshop on Solar Lamp Making

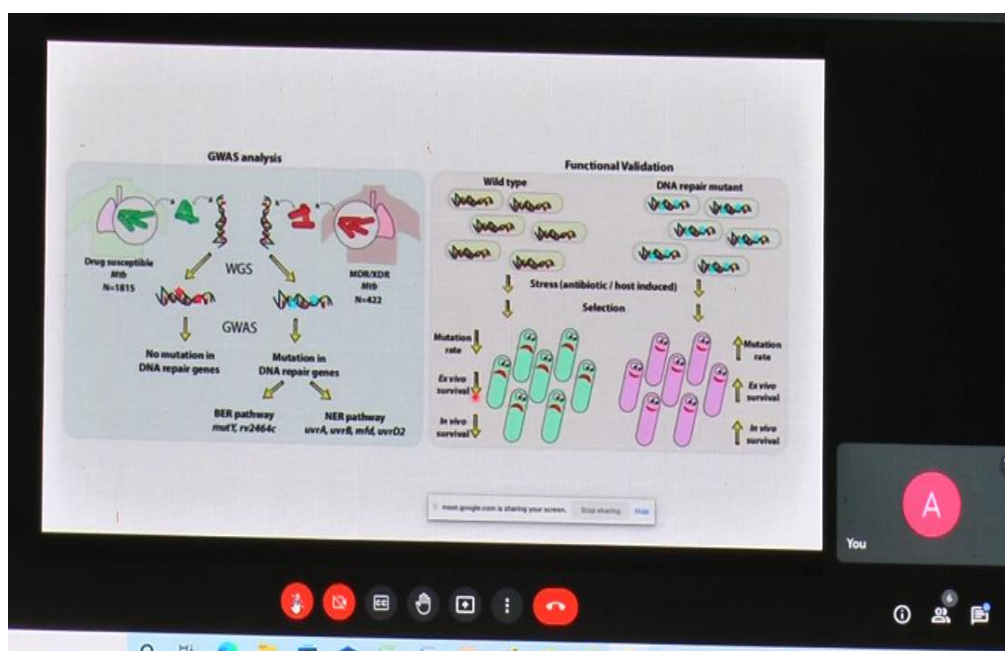
Day 3: 25 February 2022

The first session of the third day of the science festival started at 11:30 a.m. with a wonderful lecture entitled “The Fascinating World of Astronomy”, by Prof. S.K. Pandey, Ex Vice-Chancellor, Pt. Ravishankar Shukla University, Raipur, Chhattisgarh. Prof. Pandey explained how Galileo pointed his self-made telescope at the sky for the first time. He discussed about the development of modern astronomy in India in between 1947 to 2022,. "Astronomy is the of all sciences," he said.

Second lecture on "Viral Infection and Drug Resistance" from 12:30 p.m. to 01:30 p.m. was given by Dr. VK Nandicoori, Director, Centre for Cellular and Molecular Biology, Hyderabad, Andhra Pradesh, on the same day. Dr. Nandicoori discussed about structural and molecular aspects Corona virus (COVID-19). He talked about COVID-19's life cycle, disease progression, and aspects of potential treatments. He also explained how bacterial drug resistance causes drugs to be ineffective against tuberculosis.



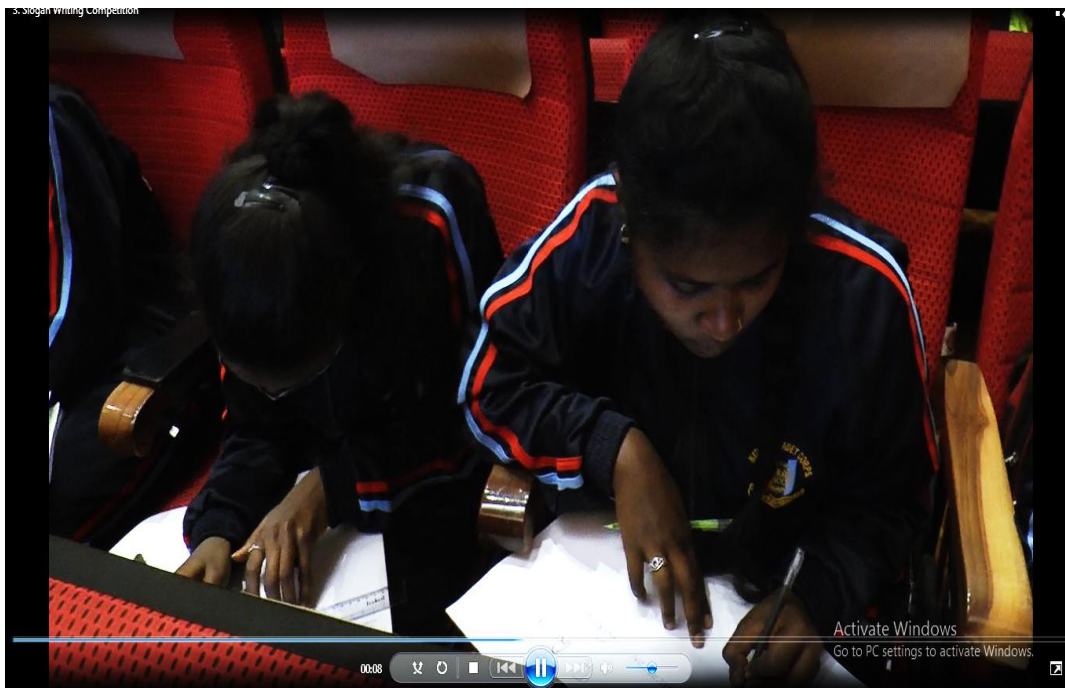
Lecture by S.K. Pandey on “The Fascinating World of Astronomy”



Lecture by Dr. VK Nandicoori on “Viral Infection and Drug Resistance”

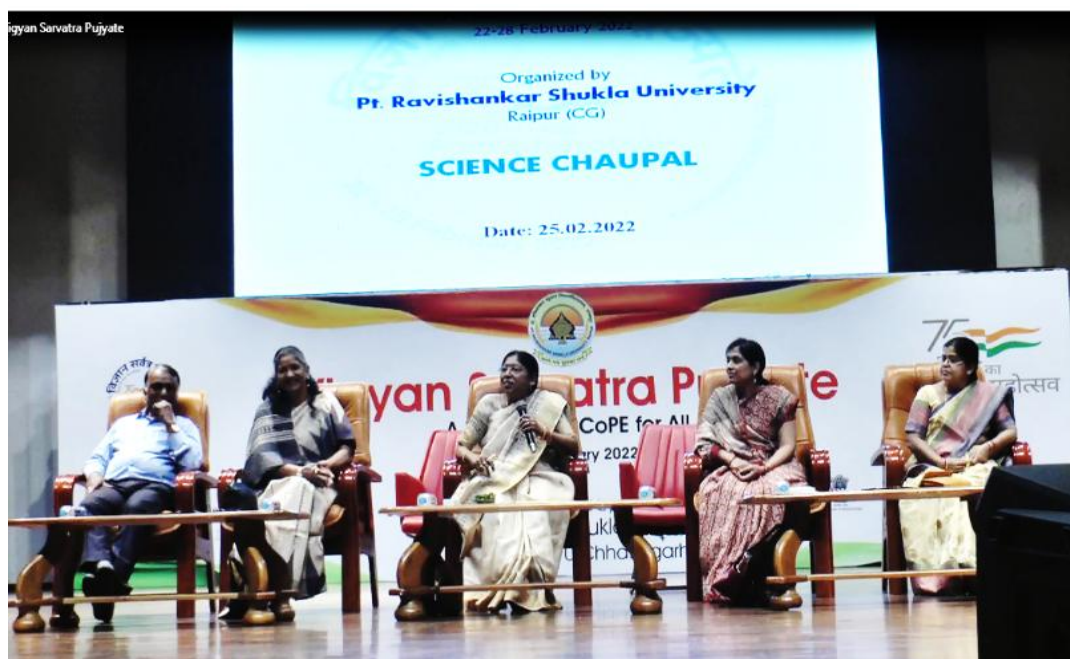
In addition, two different competitions were scheduled in between 2:30 p.m. to 4:30 p.m. of the same day. The first competition was a contest on Science Slogans Writing. This competition drew a total of 140 participants from various schools, colleges, and institutes. Prof. Preeti K. Suresh, former Head of the Department, University Institute of Pharmacy, Pt. Ravishankar Shukla University, Raipur, Chhattisgarh, Prof. Sanjay Kumar, Head of the Department, School of Studies in Computer Science, Pt. Ravishankar Shukla University,

Raipur, Chhattisgarh and, Prof. Kavita Thakur, Head of the Department, School of Studies in Electronics, Pt. Ravishankar Shukla University, Raipur, Chhattisgarh, served as the judges for this competition.



Participants of Slogan Writing competition

The next programme was "Choupal on Vigyan Sarvatra Pujyate." Prof. Mitashree Mitra, former head of the Department, School of Studies in Anthropology, Pt. Ravishankar Shukla University, Raipur, Chhattisgarh, Prof. Swarnalata Saraf, Head of the Department, University Institute of Pharmacy, Pt. Ravishankar Shukla University, Raipur, Chhattisgarh, Prof. D.P. Kuity, Former Head of the Department, School of Studies in Geology and WRM, Pt. Ravishankar Shukla University, Raipur, Chhattisgarh, Prof. Namita Brahme, Professor, School of Studies in Physics and Astrophysics, Pt. Ravishankar Shukla University, Raipur, Chhattisgarh, were the expert members of this event. The participants posed queries related to the science and technologies, including the significance of bioweapons, how to get into research and development organisations like ISRO and DRDO, entrepreneurship skills, IPM, etc. Experts were advised the youth to cultivate a scientific temperament in order to pursue research. On the third day of the festival, 150 students from various schools, 400 students from the higher education department, and 100 general public participated.



“Choupal Charcha on Vigyan Sarvatra Pujyate with the Experts”

Day 4: 26 February 2022

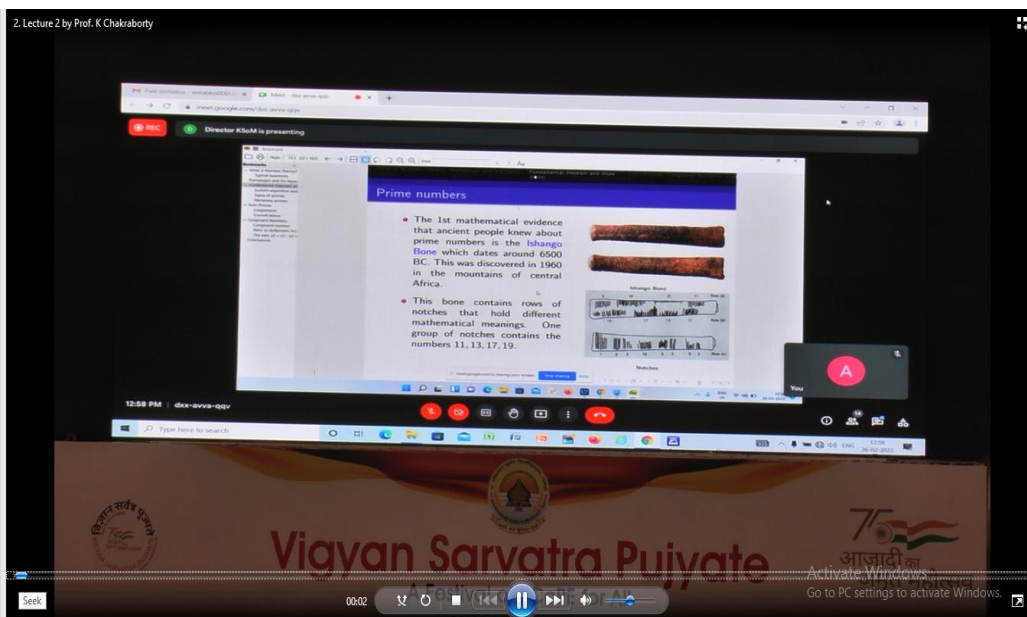
Fourth day of the science festival was started at Pt. Deendayal Upadhyay Auditorium, Raipur, Chhattisgarh, with a wonderful lecture (11:30 a.m. to 12:30 p.m.) on “Time to Dance” by Dr. AK Pati, Executive Member, Odisha State Higher Education Council, Bhubaneswar, Odisha. Dr. Pati revealed the molecular mechanisms behind the circadian rhythm of reptiles like snakes. He shed lights on the difference in the levels of various hormones like growth hormones, oxytocin, serotonin, glucocorticoids, etc., in human being during different time slots in a day. In a nut shell, he discussed the thermodynamical, psychological, cosmological and chronobiological arrow of time. Circadian rhythm that plays an essential role in everyone’s life, was discussed in his lecture.

From 12:35 p.m. onwards, another lecture was held by Prof. K Chakraborty, Director, Kerala School of Mathematics, Kozhikode, Kerala, on “Numbers and Beyond”. Prof. Chakraborty introduced the legacy of Ramanujan and his dedication for mathematics, among the youth. The interesting facts regarding prime numbers, their types and also their illustrations in daily life were shared by him. Various facts like Bertrand’s theorem, Sophie Germain (SG) prime, Mersenne primers, Goldbach Conjecture, Archytas of Tarentum was discussed in his lecture. The prime numbers are a matter of interest even during ancient

times. The primes are the basic building blocks of number universe from which all the other natural numbers have been originated.



Lecture by Dr. A.K. Pati on "Time to Dance"



Lecture by Prof. K Chakraborty on “Numbers and Beyond”

In the next session, hands on training cum demonstration of "Magical reactions of chemistry" was performed by Dr. ML Satnami, Dr Indrapal Karbhal and their team members from School of Studies in Chemistry, Pt. Ravishankar Shukla University, Raipur, Chhattisgarh. They were given live demonstrations of various chemical experiments/reactions to show ‘Colours of Chemistry’. Prof. Kesari Lal Verma, Vice-Chancellor, Pt. Ravishankar Shukla University, Raipur, Chhattisgarh, also joined the session. Dr. Satnami, his research scholars and post-graduate students showed various colourful reactions including lava experiment, fireworks, water changing into diverse colours, transparent ink making, tyndall effect, etc. The colourful demonstration of the chemical reactions was found to be fascinating and caught the school student’s attention, more especially. Dr. Satnami and his team also discussed the underlying mechanisms/ precise chemical reactions involved behind all those magical reactions in a very simplified way. Total participation on fourth day of the fest included 150 students from various schools, 300 students from higher education department and 100 general public audience.



Demonstration of magical reactions of chemistry



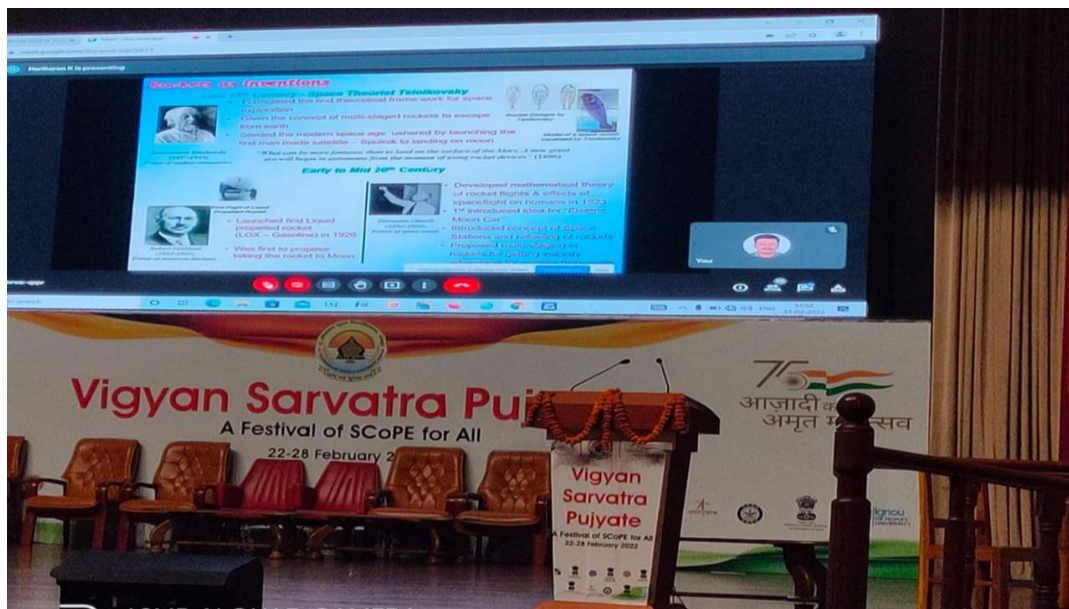
Demonstration of magical reactions of chemistry

Day 5: 27 February 2022

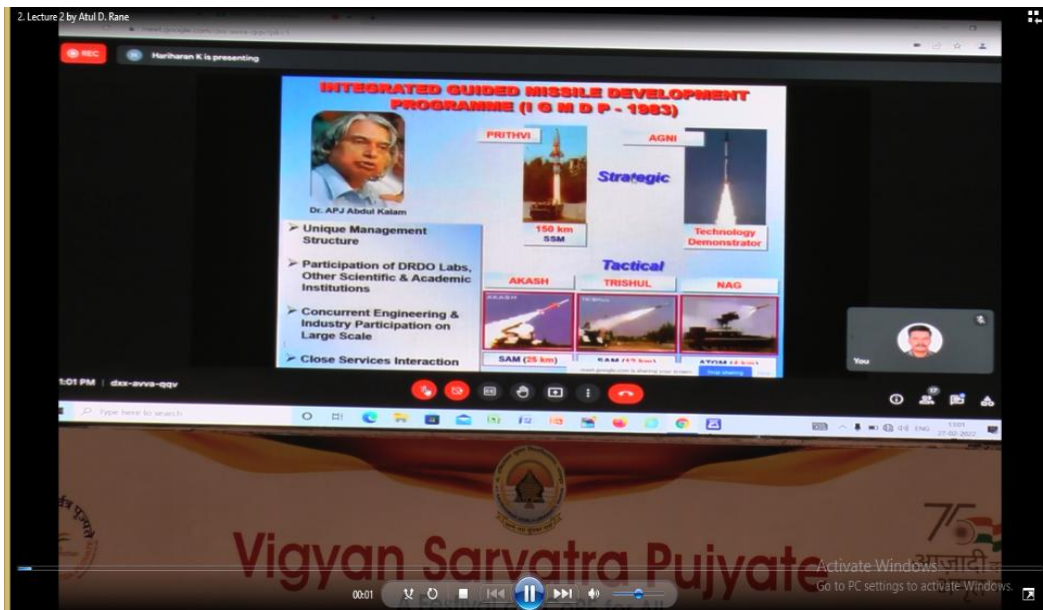
On fifth day of the science festival a wonderful lecture on “Quality Science Education in India in 21st Century” was delivered by Prof. AK Bakshi, Vice-Chancellor, PDM University, Bahadurgarh, Delhi NCR, between 11.30 a.m. to 12.30p.m. Prof. Bakshi has put forward his conceptualization and experience in front of the youth. Prof. Bakshi has discussed the skills to be required in youth in the 21st century for quality education. He urged the young students

to develop various skills like critical thinking, literacy skills, life skills, collaboration, technological skills, leadership quality, problem solving, etc., to grab top opportunities and for acquiring competence to face challenges to be incur in future ahead.

Afterwards, second lecture was delivered by Dr. AD Rane, Director General (Brahmos), and CEO and MD, Brahmos, Defence Research and Development Organization, New Delhi, on “Missile Technology and Exploration” between 12:30 p.m. to 01:30 p.m. He shed light on Astra mission, Cruise missiles in Iraq war, Akash weapon system, Brahmos for navy, and the various COVID-19 adaptations given by defence laboratories. The potent solution of controlling COVID-19 infection through 2-Deoxy-D-Glucose was also discussed by Dr. Rane.



Lecture by Prof. AK Bakshi on “Quality Science Education in India in 21st Century”



Lecture by Dr. AD Rane on “Missile Technology and Exploration”

In the second half of this day, Ideathon, and Science based Rangoli making competitions were organized, separately. In the Ideathon event, a total of 12 participants took part. In this brainstorming event, each of the participants were given four minutes time to present their innovative ideas *via* Power Point Presentation. The participant’s ideas were evaluated by the panel of judges; Prof. Arun Kumar, former Head of the Department, School of Studies in Anthropology, Pt. Ravishankar Shukla University, Raipur, Chhattisgarh, Prof. SK Jadhav, former Head, School of Studies in Biotechnology, Pt. Ravishankar Shukla University, Raipur, Chhattisgarh and, Prof. Ninad Bodhankar, Head of the Department, School of Studies in Geology and WRM, Pt. Ravishankar Shukla University, Raipur, Chhattisgarh. All the participants gave brilliant ideas regarding current situations. Afterwards, Science based Rangoli making competition was held to motivate students towards science. This competition was held with the motive to develop the scientific temper while also developing aesthetic and creative skills. The competition drew a total of 24 participants from various schools, colleges, and institutes.



Participant presenting innovative idea in an Ideathon competition



Participants in the Rangoli Competition



Beautiful rangoli depicting Space research and Technology



Dignitaries praising the efforts of rangoli participants

Students were created beautiful rangoli using a variety of colours and depicted astronauts, rockets, mathematical equations, lab experiments, etc. The competition was judged by Dr. LS Gajpal, Associate Professor, School of Studies in Sociology, Pt. Ravishankar Shukla University, Raipur, Chhattisgarh, Prof. Anusaiya Baghel, Head & Dean, School of Studies in Geography, Pt. Ravishankar Shukla University, Raipur, Chhattisgarh and, Dr. Suparna Sengupta, Librarian, School of Studies in Library and Information Science, Pt. Ravishankar Shukla University, Raipur, Chhattisgarh. Total participation on day 5 of the science fest included 150 students from various schools, 350 students from higher education department and 50 general public audiences.

Valedictory Function: 28 February 2022

At 2:30 p.m. of the last day of a week long science festival, a rally was started namely “Science for All” in which all the students and faculties from various schools, colleges and institutes were participated. On this day, a rally of the students was organized to create awareness about science among common people, and also to spread the beneficial impacts of it. In this rally, more than 600 students took part with enthusiasm. Prof. Keshari Lal Verma, Vice-Chancellor, Pt. Ravishankar Shukla University, Raipur, Chhattisgarh and, Prof KK Ghosh, Director, Centre for Basic Science, Pt. Ravishankar Shukla University, Raipur, Chhattisgarh, showed Green Flag to the rally. The students depicted various slogans on science in the form of posters.



Science Rally: Science for All

The valedictory function commenced with the joining of the Chief Guest Shri Aijaz Dhebar, Mayor, Raipur, Chhattisgarh, President Prof Keshari Lal Verma, Vice-Chancellor, Pt. Ravishankar Shukla University, Raipur, Chhattisgarh, Prof GK Pandey, Registrar, Pt. Ravishankar Shukla University, Raipur, Chhattisgarh, Shri NB Rao, President, Health Department of Nagar Nigam, Raipur, Chhattisgarh and, Prof. Keshav Kant Sahu, State Coordinator of the event. Event succeeded with the prize distribution ceremony. The winners of all the competitions held during the science festival were honoured by Shri Aijaz Dhebar and Prof. Keshari Lal Verma. Total participation on valedictory event included 150 students from various schools, 400 students from higher education department and 100 general public audience. In this function, valedictory address was given by Shri Aijaz Dhebar. The vote of thanks was given by Prof. GK Pandey. At the conclusion of the ceremony, the National Anthem was performed.

Glimpses of the Valedictory Function



Ceremony of the Lamp lighting



Respected Dignitaries on the Dias



Valedictory Address by the Chief Guest Mayor Aijaz Dhebar



Prize Distribution Ceremony



Celebrating Successful Completion of the Science Festival

**(Prof Keshav Kant Sahu)
Coordinator
Pt. Ravishankar Shukla University
Raipur 492 010, Chhattisgarh**