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Special issue on

National Science Week



Azadi Ka
Amrit Mohotsav

Integrated Approach In Science And Technology For A Sustainable Future.

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'Science Awareness Week' knowledge feast for Students: Dr. Shyam Kohli

Kolhapur (Rohit Kamble/ Pavan Patil) : Dr. Shyam Kohli, the advisor to the Science and Technology Department of the Government of India said that the 'Science Awareness Week' organized in the Shivaji University, Kolhapur is a knowledge feast for the students and appealed the students to take benefits of the golden opportunity. He was speaking in the inaugural session of 'Science Week' in Rajarshi Shahu auditorium of Shivaji University. The Vice Chancellor Prof. Dr. D. T. Shirke presided over the inaugural function.

While expressing satisfaction about the on-going research projects in university, Dr Kohli said that under the DST-FIST scheme six projects are sanctioned to Shivaji University. Apart from the DST-FIST,



The Vice Chancellor of Shivaji University, Prof. Dr. D. T. Shirke lights the Science lamp to mark the beginning of the Science Week. Also seen are (L to R) Kiran Thakur, Dr. Shyam Kohli, Prof. Dr. R. V. Kamat, Pro. Dr. R. G. Sonkawade and Pro-Vice Chancellor Prof. Dr. P. S. Patil.

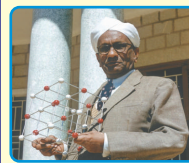
12 initiatives and projects under DST-PURSE, DST-SAIF, DST-SATHI, Ramanujan fellowship and other are underway in university.

In his presidential address Vice Chancellor Prof. Dr. D. T. Shirke said

that the Science Week has provided a golden opportunity to the college students to visit and observe various science projects so that they could decide their future career in science stream. He further said, "There should be doubts and questions in the minds of every students and without any fear they should raise their questions which will ultimately help them in their overall development". The Vice Chancellor Prof. Dr. D. T. Shirke further lauded research culture in

Shivaji University and said the research activities have attracted huge funds from the DST. He appealed the students that they should visit the university frequently and should take

Rich Tribute to Dr. C. V. Raman



Every year on February 28, to mark the discovery of the Raman effect by physicist Sir C. V.

Raman, the National Science Day is celebrated all over India. Sir C V Raman was the first Indian to receive Nobel Prize for India in 1930.

information about different university departments.

In his introductory remarks, Pro-Vice Chancellor Prof. Dr. P. S. Patil information about the various equipment and facilities available in different science departments on university campus. The dean of the faculty of Science and Technology Prof. Dr. R. K. Kamat welcomed the dignitaries and participants while Prof. Dr. R. G. Sonkawade, the director of the DST-SAIF centre proposed vote of thanks. Ashwini Patil anchored the programme.

Dignitaries Comments

Prof. Dr. D T Shirke, Vice Chancellor, Shivaji University, Kolhapur



Shivaji University, has been taking efforts to spread awareness and generate interest among the students about science as a part of National Science Week. I am sure, that the celebration of Science Week would inspire the visiting students to make their career in science field which will ultimately build tomorrow's India. The researchers, staff and students from the university are making efforts to make this event a grand success.

Prof. Dr. P S Patil, Pro-Vice Chancellor, Shivaji University, Kolhapur



This Science Week provides a platform for the students to develop their skills and intellect. The highly advanced machinery available in different science departments of the university will create curiosity in the minds of school and college students. The celebration of the Science Week is not limited to just for one week, but the university will strive to cultivate the young minds throughout the year under the STUTI programme. Shivaji University is of the view that the knowledge available in the science departments of the university should percolate to the schools and junior college students therefore; the visits of the students are arranged.

Dr. V N Shinde, Acting Registrar, Shivaji University, Kolhapur



Dr. C V Raman is the only Indian to receive Nobel Prize in science. The sole purpose of celebrating National Science Day on February 28 is to develop scientific temperament among the students. The Shivaji University has provided a platform for students to celebrate National Science Week by inviting globally acclaimed scientists to guide the students. I am happy that by efforts of Prof. Dr. Sonkawade, the university has received funds from Department of Science and Technology, Government of India.

Prof. Dr. R G Sonkawade, In-charge head USIC, CFC, Coordinator SAIF



During the National Science Week celebration students from rural parts are visiting the university. The visit is expected to help the students to develop scientific approach and inspire them to make their career in science field. If just two percent of the students took inspiration from the visit and join research field then it will be a success of the event. As science is the backbone of development of any country, students should cultivate scientific values. Proper use of science is necessary for sustainable development.

- Aarati Kamble / Simran Thanekar

Learn science fidelity from Chhatrapati Shivaji Maharaj: Senior Scientist Prof. Dr. B. K. Jagtap

Kolhapur (Prathmesh Patil/ Mahesh Kamble) : "Chhatrapati Shivaji Maharaj founded the navy in his 'Swarajya' was the true follower of science. Students should learn fidelity towards science from Shivaji Maharaj", said Prof. Dr. B. K. Jagtap, the senior scientist and professor of IIT, Mumbai.

He was speaking at the valedictory function of the Science Week celebration in Rajarshi Shahu auditorium. The Vice Chancellor of university, Prof. Dr. D. T. Shirke presided over the programme.

Addressing the participants Prof. Dr. Jagtap said that after the European Revolution the discovery of the steam engine was the biggest revolution in science and technology field. He further said that if the science education is restricted to urban areas it will not be of any use, but the initiatives like the



(From L) Prof. Dr. B. K. Jagtap, Vice Chancellor Prof. Dr. D. T. Shirke, Pro-Vice Chancellor Prof. Dr. P. S. Patil, Acting Registrar Dr. V. N. Shinde and Prof. Dr. R. K. Kamat while distributing educational kits to the participants.

Science Week will definitely take the science to the grassroots level.

Speaking in the programme, the Vice Chancellor Prof. Dr. D T Shirke appealed the students that apart from learning education they should learn other skills too. He further said that Shivaji University is among the 13 universities in country which are selected under the union government sponsored STUTI

departments to take inspiration from the Science Week and be the future researchers. While addressing the participants the Pro-Vice Chancellor Prof. Dr. P. S. Patil said that the students should learn to raise doubts so that new concepts could be generated. He appealed the students that they should identify their interest and make their career in their own interested fields. He

further thanked the CFC centre, all departments and all research scholars for their contribution in the event.

Speaking in the programme, the dean of the Science and Technology faculty Prof. Dr. R. K. Kamat said that the Science Week got success in spreading awareness about science topic to the rural students. At this time, Prof. Dr. R. G. Sonkawade also addressed the participants. At this time, the dignitaries released the special issue of 'Madhyam Vidya' prepared by the students of the Journalism and Mass Communication department of the university. The acting registrar of the university Dr. V. N. Shinde proposed vote of thanks while Ashwini Patil anchored the programme. In the last 7 days 700 students from Kolhapur, Sangli and Satara districts visited the university.



Editorial

Scientific Way of Life

Shivaji University, organised 'Science Awareness Week' from 22 to 28 February 2022. The programme is being implemented by the SAIF_DST center of the university under the Government of India's 'Synergistic Training Program Utilising the Scientific and Technological Infrastructure' (STUTI) to justify 'Azadi ka Amrit Mahotsav'.

As India celebrates 75th anniversary of independence from the British this year, it is instructive to review the progress made by the country during these years and set the vision for future. In this context, national science day provides the right opportunity to reflect on our attainments and prepare for the challenges ahead. The Constitution of India expects of us to develop scientific temperament. Therefore, adopting scientific approach while undertaking this exercise is quite natural.

At the time of independence, the country was facing numerous problems. Meeting the basic necessities of the population like food, water, clothing and shelter demanded scientific answers. Therefore, founding fathers of the nation deemed it appropriate to establish a network of scientific and technological institutions, and laboratories which formed the basis of India's future strides. An army of scientists and technicians was created through these centres of excellence that shouldered the responsibility of nation-building from the ruins of centuries of suppression under foreign rule. The five-year planning in initial years created basic infra-structure on which the edifice of progress could be built on.

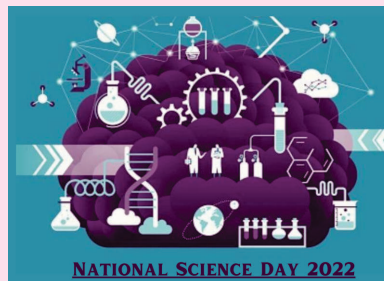
Slowly, the results of systematic and hard work started showing the results. The problem of feeding the growing population was solved through the 'green revolution'. The 'white revolution' followed, that put the country to the forefront in global milk production. Simultaneously, the foundation was laid to place India on the pathway of industrialisation. The visionaries

like Dr. Homi Bhabha and Dr. Vikram Sarabhai bravely paved the way for atomic research and space exploration in the nation that was still struggling to meet the basic requirements of its population. Many among the policy-makers and common public were sceptical and even questioned the logic of spending the scant resources of the nation on such 'fanciful' things. However, India is reaping the rich dividends today as it has secured a place in the world's nuclear and space elite club.

However, there is a little scope for complacency as the new century offers different challenges. India's population has still not stabilised and we need another 'green revolution'. The rate of employment generation has not kept pace with the rate of graduates that our colleges and universities are churning out each year. Ensuring their employability in global marketplace and maintaining the quality of education are among major challenges. Providing the impetus to make the wheels of industry move at fast pace – something that was almost halted during the Covid-19 pandemic – should be high on our priority. Ensuring the energy and health security assume equal importance. And while achieving all these goals it is of utmost importance to keep in mind the 'supply side constraints' and adopt the sustainable approach for development.

No self-respecting nation can afford its sovereignty to be held hostage by the adversaries. Mastering the cutting-edge defence technology and establishing robust military-industrial complex are the prerequisites. We can not neglect these aspects at our own peril. The emerging technologies like artificial intelligence (AI), virtual reality (VR), nanotech and biotech, 3-D printing, quantum computing, 5-G tele-communications, electric vehicles and robotics can offer new ways to meet the future goals and challenges and we cannot be lagging behind. Embracing the new world would certainly demand more than sporadic outbursts of enthusiasm and wisdom like celebrating the science day once a year; it calls for making science our way of life.

National Science Day 2022 : Moving towards a Sustainable future



Since 1987 the day is celebrated all over India as National Science Day to spread awareness about importance of science and its application in the daily life of the people. Every year the national day holds various themes which are observed by all the educational institutions throughout India.

Year	Theme for National Science Day Since 2011
2011	Chemistry in Daily Life
2012	Clean Energy Options and Nuclear Safety
2013	Genetically Modified Crops and Food Security
2014	Fostering Scientific Temper
2015	Science for Nation Building
2016	Scientific Issues for Development of the Nation
2017	Science and Technology for Specially Aabled Persons
2018	Science and Technology for a sustainable future.
2019	Science for the People, and the People for Science
2020	Women in Science
2021	Future of STI: Impact on Education Skills and Work
2022	Integrated approach in Science and Technology for a Sustainable Future

- Anuradha Inamdar

USIC, SAIF and CFC of Shivaji University



departments and affiliated colleges students/ technical staff. Presently, Prof. Dr. R. G. Sonkawade, the head of physics department is the in-charge head of USIC and SAIF-DST centre.

As a part of UCIC, Sophisticated Analytical Instrument Facilities (SAIF) Programme

The University Science Instrumentation Center (USIC) was started by University Grant Commission (UGC) in 1979. The purpose to start this center was to provide in-house central facilities such as repair and maintenance of scientific instruments, analytical instruments facility and conduct workshop and training program for the University

established to provide analytical facility to scientific community using different sophisticated analytical equipment.

The centre was sponsored by Department of Science & Technology (DST), Govt. of India. This section started in 1984, in the Shivaji University campus. With name Common Facility Center (CFC).

According to the in-charge head of the department, the department has following instruments which were procured from funding agencies.

Sr. No.	Name of Instruments	Funding Agency	Amount (In INR)
1	ICP-OES	DST-SAIF	39,10,684
2	Microwave Digestion System	DST-SAIF	18,10,626
3	Particle Size Analyzer With zeta potential	DST-SAIF	25,14,310
4	GCMS-MS	DST-SAIF	1,18,22,419
5	TEM	DST-SAIF	5,03,96,500
6	X-ray diffraction	DST-PURSE	1,45,00,000
7	Bio-AFC	DST-PURSE	1,58,02,514
8	Micro-Raman	DST-PURSE	88,89,819
9	Ultracentrifuge	DST-PURSE	29,92,500
10	Vector network analyser	DST-PURSE	25,20,000
11	XPS	RUSA	3,11,43,495
12	TGA/DTA/DSC	UGC XI Plan	18,00,000
13	GCMS	UGC XI Plan	25,07,105
14	FTIR	UGC XII Plan	10,03,466
		Total	15,16,13,438



Integration of S&T for Sustainable Development

To commemorate the discovery of Raman Effect every year on February 28, the National Science Day is celebrated all over the country. On February 28, 1928 eminent Indian physicist Sir Chandrasekhara Venkata Raman proved that a change in the wavelength of light that occurs when a light beam is deflected by molecules. Most of this

scattered light is of unchanged wavelength. Two years of the remarkable discovery, Sir Raman received first Noble Prize for India in science field.

The first National Science Day was celebrated on February 28, 1987. The motive behind such celebration is to spread awareness about importance of science and its day to day application in human life. Every year the day is with specific theme. This year is the theme is

'Integrated Approach in Science and Technology for a Sustainable Future'.

This year the above theme is designed to achieve four fold integration i.e.

1. Integration of all the scientific departments that can work together on theme based approach,
2. Extended scientific integration encompassing engineering, medical and other institutions,
3. Extra scientific integration involving identification of the needs of other ministries like Jal Shakti, Railways

etc.

4. Extended science driven all inclusive approach integrating start-ups and industry.

The celebration of National Science Day is expected to create awareness about science among the masses particularly the students. While celebrating the day it is our duty to reaffirm our commitment to fulfil our collective scientific responsibility and use the power of science to maintain peace in world and achieving sustainable development goals.



7 days of inspiration and aspiration : During the 7 days long Science Week celebration, as many as 700 students from 14 junior colleges and schools from Kolhapur, Satara and Sangli districts visited different science departments on the campus of Shivaji University. Every day, group of 50-50 students from two junior colleges and high schools visited the university. The research scholars from each science department took the group which was divided in 4 groups to different science departments.

CFC, SAIF-DST Centre



The Vice Chancellor Prof. Dr. D. T. Shirke and Pro-Vice Chancellor Prof. Dr. P. S. Patil along with students visited the CFC, SAIF-DST centre where they took information about different scientific instruments. At this time, the head of CFC centre Prof. Dr. R. G. Sonkawade, Dr. K. D. Pawar, Dr. Tukaram Dongle and research scholars gave information about the instruments.



Department of Chemistry

Under the guidance of head of the department Prof. Dr. K. D. Sonwane and Dr. D. S. Bhange, the visitors observed the Volcano experiment, Building Iron, instant fire, information of Xiao lights and NMR Spectroscopy machine during their visit to the department.



Department of Environmental Science

Under the guidance of head of the department Dr. Asawari Jadhav, Dr. Pallavi Bhosle gave detailed information about the department to the junior college students. At this time, the students were apprised about the global warming, sewerage treatment plant and biodiversity available on university campus.



Department of Nano Science and Technology

Under the guidance of the head of department of Nano Science and Technology Prof. Dr. K. K. Sharma and Dr. M. N. Dalvi the research scholars of the department demonstrated scientific experiments to the students.



Department of Biotechnology

Under the guidance of head of the department Prof. Dr. Jyoti Jadhav and Mahesh Kamble, the research scholars gave detailed information about the LCMS and RTPCR equipment.



Department of Biochemistry

Under the guidance of head of the department Prof. Dr. Jyoti Jadhav and Dr. Padma Dongle the research scholars gave detailed information about the department. The research scholars gave information about the DNA Sequencer, flow cytometer and other equipment.



Department of Physics

Under the guidance of the head of physics department Prof. Dr. K. Y. Rajpure and Dr. R. S. Vhatkar the research scholars of the department demonstrated the experiments like water purification through photo catalysis, thin film technology, super hydrophobic cotton, airogel super capacitor, patch antenna, telescope and space science.



Department of Microbiology

Under the guidance of head of the department Prof. Dr. K. D. Sonwane and Nitin Naik, the research scholars gave detailed information about Corona virus specimen and various equipment available in the department.



Department of Botany

Under the guidance of head of the department Prof. Dr. V. D. Jadhav and Dr. M. S. Nimbalkar the research scholars gave detailed information about the department to the junior college students. In this visit, the students visited the lead botanical garden where more than 1100 plant species are available. They also observed other rare plants species.



Department of Zoology

Under the guidance of head of the department Prof. Dr. A. A. Deshmukh and Dr. A. D. Gofane and Dr. M. V. Walvekar, the research scholars gave detailed information about the department. At this time, the students visited the butterfly park, zoology museum, animal house, fish tank and sericulture unit.



Department of Geography

Under the guidance of head of the department Prof. Dr. S. D. Shinde and Dr. P. T. Patil, the research scholars gave information about the weather map, scope satellite image, GPS, DGPS, drone and flood management to the students.

Teacher's and Student's Reactions



Students learned lot

Our students learned beyond what they learned from the textbooks. The various equipment and experiments demonstrated by the research scholars in zoology department inspired our students. We learned about fish and butterfly gardens. We also visited Nano science and more other department. This information will definitely be useful for students in choosing future career in science.

C.M. Teli, Teacher, Guruvarya Vitthal Patil Junior College, Halkarni



Inspiration to join research field

We visited different science departments. The research scholars gave information about the department and demonstrated scientific experiments. The visit will definitely inspire our students to join research field. I must thank the Shivaji University administration and DST Centre for arranging the visit.

Ashwini Bhole, Teacher, Princess Padmaraje Girl's Junior College, Kolhapur



Inspiring visit

For the first time I have visited Shivaji University. I have learned a lot from this visit. The facilities available in different science department of the universities are very important and I will definitely use them in future. I must thank university authorities and our college for arranging this visit.

-Deeksha Malhari, Student, Shriman V P Desai Junior College, Kowad.



Learned a lot from the visit

Today, along with other 50 students of our college, I have visited the Shivaji University. I learned and experienced a lot from the visit. The experience which we had today will be useful for us in deciding our future career.

-Sayali Salunkhe, Student, Kamla College, Kolhapur.

(Collection: Pavan Patil, Ashwita Ingle, Tabassum Desai,
Photo Credit : Chetan Suryavanshi, Vivek Rajvardhan)

**Curiosity Leads to New Discoveries: Pro-VC Prof. Dr. P. S. Patil**

Kolhapur (Simran Thanekar / Darshana Patil) : "The world is changing rapidly and many new technologies are being discovered. The inspirations behind such technological advancement is the habit of raising queries. Therefore, students should learn to raise doubts", said Prof. Dr. P. S. Patil the Pro-Vice Chancellor of the university.

He was addressing the participants on the first day of the Science Week. Giving example of the electric car and smartphones Prof. Dr. P. S. Patil said that while studying science subject the students should raise doubts and their inquisitiveness will transform into new discoveries. He further said that

asking questions is not an easy job as this requires in-depth content knowledge of the subject.

Citing the example of the Tokyo Olympic where electronic waste was used for preparing the medals, Prof. Dr. Patil said that considering the rapidly vanishing resources available on earth there is need to boost the recycle and re-use concept. Ashwini Patil anchored the programme while Dr. K. D. Pawar of department of physics proposed vote of thanks. At this time, Dr. T. D. Dongle and other were present.

**Scientific Approach Makes us Successful: Acting Registrar Dr. V. N. Shinde**

Kolhapur : (Mahesh Kamble / Chetan Suryawanshi) : Stressing the need of scientific approach, Dr. V. N. Shinde, the acting registrar of Shivaji University said that with scientific approach we can overcome any hurdle in our life. Dr. Shinde said that students should develop scientific approach and passion for learning science. He further said that for achieving sustainable development, there is need of proper use of science and technology.

Dr. Shinde appealed the students that they should make their career in

research and contribute in nation building. He also explained the scientific approach of Chhatrapati Shivaji Maharaj, Dr. C. V. Raman, William Gilbert, Jagdish Chandra Bose, Coulomb and Michel Faraday.

In the beginning of the programme, the head of the DST-SAIF centre Prof. Dr. R. G. Sonkawade welcomed and proposed vote of thanks. Physics department faculties including Dr Kiran Pawar, Dr Tukaram Dongle and students were present.

Use of plant science for sustainable Development necessary: Prof. Dr. V. A. Bapat

Kolhapur : (Arti Kamble / Vivek Rajvardhan)

"The whole ecosystem is dependent on plants, there is need to use the plant science for sustainable development. If such efforts are made then humans will be able to overcome many problems prevailing in the world", said Prof. Dr. V. A. Bapat, the honorary scientist National Academy of Science and Technology.

Addressing the students, Prof. Dr. Bapat gave many examples about how the plants are important for humans. He said that plants can sustain in adverse climatic conditions and research has also proved

that music can accelerate the plant growth. Underlying the importance of plants in India context, he said that the plants are the base of Ayurveda and in India, women are named after many plants.

In the beginning of the programme, the head of the physics department Prof. Dr. K. Y. Rajpure felicitated and welcomed Prof. Dr. Bapat. Ashwini Patil anchored the programme while Dr. K. D. Pawar proposed vote of thanks. Meanwhile, after the visit Dr. R. G. Kulkarni and Dr. K. A. Garadkar presented specifically prepared kit and certificates to the students of Siddhaenerli High School, Siddhanerli and Manv High School and Junior College, Shendur.



Kolhapur : (Ashwita Ingle / Pavan Patil) "Astronomy is very important and interesting topic as through which we can learn about the origin,

Students Should Learn Astronomy Events: Dr. M. V. Takle

present status and end of the stars", said Dr. M. V. Takle. He was addressing the students in the physics department of the Shivaji University.

100 students from the Chhatrapati Shivaji Maharaj Junior College, Panhala and GSSPU College, Belgaum visited the university. While addressing the participants Dr Takle gave information about the

Lecture series during Science Week

Date	Name of Dignitary	Participated school/college
22 February 2022	Prof. Dr. P. S. Patil Pro-Vice Chancellor, Shivaji University, Kolhapur	1. Kisanrao More High School and Jr. College, Sarwade, Radhanagari. 2. Kamla Junior College, Kolhapur.
23 February 2022	Dr. V. N. Shinde Acting Registrar, Shivaji University, Kolhapur	1. Devale School and Jr. College, Devale, Panhala 2. MGM College, Karad.
24 February 2022	Prof. Dr. V. A. Bapat Department of Biotechnology, Shivaji University, Kolhapur	1. Manav High School and Jr. College, Shendur. 2. Siddhanerli High School and Jr. College, Siddhanerli, Kagal.
25 February 2022	Prof. Dr. Mohan Madwanna Dr. Dayanand College	1. Guruvarya Gurunath Vitthal Patil Jr. College, Halkarni, Chandgad. 2. Shriman V P Desai Jr. College, Kowad, Chandgad.
26 February 2022	Prof. Dr. Madhuri Shanbagh Govindram Saxeria College, Belgaum	1. Princess Padmaraje Girls High School & Jr. College, Kolhapur. 2. Y C College, Satara.
27 February 2022	Prof. Dr. M. V. Takle, Department of Physics, Shivaji University, Kolhapur	1. Chhatrapati Shivaji Jr. College, Panhala. 2. GSS Jr. College, Belgavi.
28 February 2022	Prof. Dr. R. K. Kamat, Dean Faculty of Science and Technology, Shivaji University, Kolhapur	1. RajeRamrao Jr. College, Jat, Sangli. 2. Sau. Vatsalabai Ramchandra Divate Jr. College, Vita, Sangli.

Nation Building Relies on Science and Technology : Prof. Dr. R. K. Kamat

Kolhapur : (Tabassum Desai/Vishal Pujari)

"With every passing day technology is rapidly changing and becoming more sophisticated. The future will be of internet of things therefore students should concentrate on creativity", said Prof. Dr. R. K. Kamat, the dean of the Science and Technology faculty of Shivaji University.

On the last day of the ongoing Science Week he was addressing students in the

physics department of the university. At this time, head of sociology department Prof. Dr. Jagan Karade and the coordinator of SAIF-DST centre Prof. Dr. R G Sonkawade were present.

Speaking further, Prof. Dr. Kamat explained the importance of technology. He gave the examples of smart toothbrush designed to monitor whether we are brushing our teeth properly or not. He also gave example of the smart cloths which will monitor body temperature, blood pressure and heart beats. He also explained the drone technology and gave demonstrations.

In the beginning of the programme, Prof. Karade felicitated Prof. Kamat. Ashwini Patil anchored the programme while Prof. Dr. K. D. Pawar proposed vote of thanks.

Women's Participation In Research Should Increase : Dr. Madhuri Shanbagh

Kolhapur : (Simran Thanekar / Prathmesh Patil) : Stressing the need of increasing the participation of women in research field, Dr. Madhuri Shanbagh the principal of the Govindram Saxeria Science College, Belgaum said that if the participants took inspiration from the ongoing 'Science Awareness Week' then in next 25 years, while celebrating the 100 years of independence, women's participation will be increased.

Speaking further she said that the research field is a very interesting field to cultivate passion for critical thinking, acquiring intellectual qualities like comprehension, memory, grit etc. She said that research teaches how to face failure too. While speaking about the misconceptions about research, Dr. Shanbagh said that the research field is not limited to intellectuals but through research one can earn name and fame and also serve the society.



At this time, Prof. Dr. S. R. Yadav, the fellow of National Science Academy and director of BalasahebKhardekar Knowledge Resource Centre Prof. Dr. Namita Khot presented certificates and educational kit to the 100 participants from the Yashwantrao Chavan Institute, Satara and Princess Padmaraje Junior College, Kolhapur. In the beginning of the programme, Prof. Dr. Varsha Jadhav felicitated Dr. Shanbagh. Ashwini Patil anchored the programme while Dr. T. D. Dongle proposed vote of thanks. At this time, the director of SAIF-DST centre Prof. Dr. R. G. Sonkawade was present.

their classifications, their collisions and astronomical study of the sun.

In the beginning of the programme Prof. Dr. N. B. Gaikwad welcomed Dr. Takle. The head of foreign language department Dr Medha Pansare and head of Marathi department Prof. Dr. Randheer Shinde gave away certificates to the participants. At this time, Prof. Dr. R G Sonkawade and others were present while Dr Jadhav of Nano Science department proposed vote of thanks.

Maths Education Indispensable In Every Science Branch: Dr. Mohan Madwanna

Kolhapur (Nikita Bagne / Radhika Patil) : Underlining the importance of mathematic subject, Dr. Mohan Madwanna the science communicator and career advisor of Dr. Dayanand College said that maths education is an integral part of every science branch therefore students should concen-trate on this



subject right from higher secondary education.

Addressing the students in the physics department of the university, Dr. Madwanna explained the importance of science subject. He gave examples of Sameer Mitragotri of Solapur, Bhagya Swami, the research assistant in Indian

Navy and Sandip Solo of DRDO. He appealed the students to use the Marathi Vishwakosh Mobile Application for under-standing science concepts in Marathi.

In the beginning of the lecture, Prof. Dr. Delekar welcomed Prof. Madwanna. Ashwini Patil anchored the programme while Dr. Tukaram Dongle, Dr. K D Pawar

and other worked for organizing the programme. Dr. K V More proposed vote of thanks. At this time, Dr S R Patil of Sanjay Ghodawat University and Prof. Dr. S R Patil of department of chemistry Shivaji University, gave away certificates and educational kit to the participants. Prof. Dr. Mohan Madwanna while interacting with students