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# 8<sup>th</sup> RAJASTHAN SCIENCE CONGRESS

20-22 October 2021

**Venue:** APJ Abdul Kalam Auditorium  
IIS, Kshipra Path, Opp. VT Road, Mansarovar, Jaipur 302020



## Science and Technology for Sustainable Development

**Themes / Disciplines:**

Material & Applied Science

Life Science

Science Communication

Environmental Science

Internet Science

Mathematical Science

Psychology

Economics

An initiative of  
**VDS**  
Vaigyanik Drishtikon Society

**Prof. Y.K. Vijay**  
Chairman, RSC-8,  
Director, CIST

**Dr. Sreemoyee Chatterjee**  
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Importance of theme:

The current time is considered as a critical time for both humanity and the planet and thus there is a need to seek for more sustainable formulas for interacting with the environment and its various constituents. Sustainable Development talks about production of goods and services while putting minimum burden on the nature and reducing raw materials, water and energy consumption and waste. Further, in this concept the earth's resources are utilized in such a manner that human needs of the present time are met and at the same time the needs of the future generation are also not compromised.

As the temperature of the mother earth is rising at an alarming rate, so there's a need to design an effort where technology and the circular economy will play a pivotal role. The circular economy is a concept where traditionally considered elements are reused. To contribute to the ideas of Sustainable Development, a number of reformations can be suggested in various fields closely related to mankind. In the field of agriculture, there's a need to develop alternative crop species which are tolerant to changing climatic conditions created as an effect of Global Warming. Among the technologies "electric cars" and "green vehicles" will rule the future as these vehicles will use bio-fuels using crop wastes like corn waste & sugarcane waste.

The waste water from cities is also a critical indicator of deteriorating lifestyle in the major cities. In such a case, Bioremediation becomes a precise solution that facilitates the use of biotechnology in the field of environment. Better and harmless species of Fungi and Bacteria can be employed to decontaminate the waste water and recycle it for further use in various industries and factories. This alternative also indicates that "living" technology will also play a crucial role in promoting the concept of Sustainable Development.

The elements of Science and Technology can play a pivotal role in linking the fundamental significance of the Earth System as life support to the various emerging strategies of the sustainable development. There is an emergent need to explore a lot more horizons in this integration so that the current deteriorating phase of the Mother Earth can be put to halt.

At all levels, the role of science and technology is crucial; scientific knowledge and appropriate technologies are central to resolving the economic, social and environmental problems that make current development paths unsustainable, bridging the development gap. Cooperation in basic science and technology offers potentially powerful means to achieve sustainable development on earth.

## About RAJASTHAN SCIENCE CONGRESS ASSOCIATION

Rajasthan Science Congress Association (RSCA) was formed in the year 2013 to mark the centenary year of Indian Science Congress Association (ISCA). RSCA was formed as voluntary/non-government organization of scientists, educators and teachers (all categories) for promotion of research and development in all forms of science, technology and innovations in the state of Rajasthan to meet the regional aspiration and academic expectations under the auspices of Vaigyanik Drishtikon Society. The congress aims to provide a common platform to the scientific community, participating from diverse fields to interact with researchers from their varied disciplines to strengthen their participatory network nationally and internationally. This will be an opportunity for all to share and exchange progress and information in diverse fields of research. This will help to generate a conscious thought process among the scientific community towards making collective efforts to find scientific and technological solutions to existing challenges as well as to make the daily life of the common citizen more comfortable. The budding academicians and researchers will become acquainted with the current issues of the land, the efforts being made by scientists to solve them and the new discoveries in the field of science and technology through various seminars which will be presented during the science congress.

### Secretariat:

123/83, Mansarovar, Jaipur-302020 (India)  
Email : rajasthansciencecongress@gmail.com

## About JAIPUR

Jaipur, the largest city of Rajasthan is an epitome of magnificence and vibrancy. This royal place is rich in heritage, culture and architecture. With splendid fortresses, majestic palaces, tranquil temples and beautiful havelis, Jaipur turns out to be an ideal tourist destination. The first planned city of India, it is the capital of Rajasthan and International tourists planning to tour Rajasthan start the journey most often from Jaipur.

Jaipur, the picturesque capital, also known as the Pink city, was founded in 1727 by Maharaja Sawai Jai Singh II. It is not just the royal buildings and palaces that this city offers, but besides these captivating attractions, Jaipur also displays exquisite handicrafts and spectacular jewellery. These intricate works of art add life and colour to this Pink City's uniqueness. Also, the serenity of lush gardens and floral array acts as the cherry on the cake of fabulous landscapes. All this makes a picturesque view that tends to enthrall any visitor. To add on to its liveliness, this place has brilliant bazaars filled with bright turbans and ethnic attire, hand-dyed and embroidered textiles and delicious food. Dressed in pink, this royal city is the apt blend of heritage, palaces, culture, art and flamboyance. This fascinating city with its romantic charm takes you to an epoch of royalty and tradition.

## About THE UNIVERSITY

IIS (deemed to be University), Jaipur is among the pioneers in Rajasthan in imparting high quality education to women in different streams. It is known for excellence in delivering value-based education to students and encourages them to think innovatively in different walks of life. It particularly focuses on preparing students to become world ready citizens, who are abreast to take any professional and social challenges with an educated and empowered mind. With over 5500 students, the University offers UG, PG and Doctoral programmes in Arts, Science, Social Sciences, Commerce, Management and Computer Science & IT.

## Sub-Themes

**Material & Applied Science:** Hydrogen Storage, Sensing & Fuel Cell, Electronic and Photonic Materials, Dielectrics and organic materials, Energy Materials and Technologies (EMT), Soft Materials, Magnetic and Superconducting Materials, Emerging Devices and Technology (EDT), Compound Semiconductor and Speed Devices (CHS), Device Modeling and Simulation (DMS), Compound Semiconductor and Speed Devices (CHS), Optoelectronic and Photonic Devices (OPD), Sensors, MEMS, and BioMEMS (SMB)

**Life Science and Environmental Science:** Sustainable water and Energy solutions: Monitoring and analysis of environmental contaminants, Emerging pollutants and their control technologies, Environmental data analysis and modeling, Climate change and environmental dynamics, Environmental restoration and ecological engineering, Biodiversity conservation, Bioremediation, Biofuel, Bioenergy, Bioprocess Engineering, Nanobiotechnology

**Chemistry:** Catalysis, Co-ordination & Supramolecular Chemistry, Bio-inorganic, Bio-organic & Bio-Physical Chemistry, Natural Product and Green Chemistry, Polymer Sciences, Computational Chemistry, Nanoscience

**Internet Science:** Emerging Trends in Information and Communication Technologies", Green Computing for Sustainable Development, Artificial Intelligence, Machine Learning, Data Science & Data Analytics, ICT in Education, Bio-Sciences, and Management & Commerce.

**Psychology and Economics:** Environmental Economics, Agriculture Economics & Development Economics, Equality, Equity and Sustainable Development, Urbanization, industrialization and sustainable development, Developing SDG indicators, Reshaping economic geography

**Science Communication:** Public communication presenting science related topics to non-experts

## REGISTRATION Details:

REGISTRATION COMMENCES:	20 September, 2021
CATEGORIES	REGISTRATION AMOUNT
STUDENT/RESEARCH SCHOLAR	₹ 500
FACULTY/ACADEMICIAN	₹ 1000

Registration Amount will include Working Lunch, RSC Kit and Certificate

**PAYMENT LINK** / <https://forms.eduqfix.com/iised/add>

School Children with their Teacher Mentors are invited to visit exhibition and share their innovative idea, project or working model with experts.

## WHO CAN PARTICIPATE:

Scientists, technocrats, policy makers, researchers from science and technology discipline. Graduate and post graduate students in science, Engineering, Agriculture and Medical are encouraged to participate in the program.

## EXHIBITION THEMES :

- Aatmanirbhar Bharat:** Indigenous Science Technology Research Development and Dissemination by Department of Atomic Energy, Govt. of India.
- Natural Resources:** Science technology to explore Natural Minerals by Atomic Mineral Division, Govt. of India
- Innovation and Research:** Innovative models and demonstrations by students and teachers. Poster presentation by participants.

## EXPERT LECTURES (Tentative List) :

- Prof. A.K. Tyagi, Chemistry Group, BARC Mumbai
- Prof. Ramphal Sharma, BAMU, Aurungabad
- Prof. C.S. Solanki, IIT Mumbai, Energy Swaraj
- Dr. P.C. Pancharia, CEERI, Pilani
- Dr. Ram Prakash, IIT Jodhpur
- Dr. Pamposh Kumar, NCSTC, DST, Govt. of India
- Dr. Shobhana Chaudhary, CSIR-HRDC
- Dr. Rajendra S. Sangwan, AcSIR
- Prof. S.L. Kothari, Amity University, Jaipur
- Dr. S.K. Gupta, Scientist, DAE
- Dr. Sandeep Sancheti, Rajkot, Expert IT
- Prof. Manish Shrimali, Central University, Ajmer
- Prof. Dilip Sharma, MNIT, Jaipur
- Prof. Ambesh Dixit, IIT, Jodhpur
- Dr. D. Marshal, IIT BHU, Varanasi
- Prof. B. L. Ahuja, MLSU, Udaipur
- Dr. R K Sinha, CSIR-HRDC Gaziabad, UP
- Dr. Reena Mathur, Animal Behavior, University of Rajasthan
- Prof. R S Sharma, Earth Science, INSA Fellow, Jaipur
- Dr. D P S Rathore, AMD, FRS-C, Jaipur
- Dr. N K Khatri, ONGC, Ahmedabad
- Dr. Vinod Bihari Mathur, NBA, Chennai



FOR PARTICIPATION ONLY

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