November brought some of the best of times for science. The address of the Hon’ble Prime Minister to the India International Science Festival (IISF) through video conferencing at Kolkata triggered the four day celebration of science at the City of Joy. Advocating for a strong ecosystem supporting Science and Technology, he inspired the huge gathering spanning several cross sections of society including students from rural areas, teachers, artisans as well as scientific experts in different fields. He added that every effort is being taken to support innovation in the country. The bunch of myriad events related to science ranging from Global Indian scientists and Technocrats Meet, Young Scientists’ Conference, Science Literature Festival ‘Vaigyanika’, Science Media Conclave, Women Scientists’ and Entrepreneurs’ Conclave to Students Science Village that brings school students from each Lok Sabha Constituency in India and several more was a massive effort to initiate a movement of science in the country.

The November E-Newsletter brings you a reflection of the IISF celebration. You can also delve into a discussion of experts on way forward for hydrogen technologies and also enjoy reading through how research connected to life can boost social media visibility and much more.

—DR NAKUL PARASHAR, EDITOR-IN-CHIEF
Digital Exhibition on Mahatma Gandhi Digital Gandhi Gyan-Vigyan inaugurated

A digital exhibition with augmented reality and virtual reality installations called ‘Digital Gandhi Gyan-Vigyan’ was inaugurated by Secretary, Department of Science & Technology, Professor Ashutosh Sharma at Technology Bhawan, New Delhi to mark the 150th birth anniversary of Mahatma Gandhi.

Research connected to life can boost social media visibility

Aligning research with socially relevant problems or issues that are globally relevant can help boost social media visibility of Indian research, a study published in the journal Current Science has said.

Global Cooling Prize given to support innovative climate friendly technologies

The Government of India, along with a global coalition led by Rocky Mountain Institute (RMI), announced eight finalists of the Global Cooling Prize, an international innovation competition to develop super-efficient and climate-friendly residential cooling solutions.

Developing country experts discuss hydrogen technologies, market & solutions

Experts from 68 developing countries discussed hydrogen technologies, market, and solutions at a workshop on Green and Low Carbon Hydrogen Energy at Shanghai, China. The two day workshop was organised to improve knowledge and understanding of hydrogen technologies, markets, and solutions among developing member countries.

150 Years of the Periodic Table

16-19 December, 2019

Bengaluru

Indian Institute of Astrophysics (IIA), Bengaluru, will be hosting a four day conference to celebrate the 150 years of the periodic table. The objective of the conference “Chemical elements in the Universe: origin and evolution” is to take stock of the current understanding of origin and evolution of chemical elements and their abundances in the Universe.
**POPULAR SCIENCE STORIES**

**Smart solar cooker could be a solution for community kitchens**

A solar cooker awarded by the Department of Science and Technology may be an answer for rapid cooking needed in community kitchens. It concentrates sunlight and speeds up cooking as a smart solution. The technology has received the National Grand Challenge Award announced by the Department of Science and Technology (DST) to commemorate the 150th birth anniversary of Mahatma Gandhi.

DST had announced a call inviting applications for the awards to promote the ideals of Mahatma Gandhi of self-sustainable rural villages utilizing clean energy resources.

Dr. Ajay Chandak, 'Suman Foundation,' Shamgiri, Agra Road, Deopur, Dhule, won the award under the category of Small Community Cooking for developing a Solar concentrating community cooker with square segmented reflector dish.

**New technology can help the disposal of hospital waste through electric arc-plasma**

With DST’s support, CSIR-CMERI has developed a technology for plasma arc assisted Hospital Solid Waste (HSW) disposal plant with minimum toxic emission in the environment. This plant has about 95 percent waste reduction efficiency and is a viable technology for complete hospital solid waste treatment. The final emitted gas from this HSW treatment plant is less hazardous and below the permissible level of toxic emission, according to the Central Pollution Control Board (CPCB). This next-generation technology not only reduces the waste volume but also contributes to environmental cleanliness.

**DST OVERSEAS**

DST-CII Tech Summit unveils joint entrepreneurial opportunities for India & Netherlands

The 25th edition of the DST-CII Technology Summit with partner country The Netherlands brought together experts, academicians, industries, and entrepreneurs of the two countries together to discuss areas of closer co-operation between the countries to address mutual challenges.

The summit inaugurated by H.M. King Willem-Alexander of The Netherlands and Hon’ble Union Minister for Science & Technology, Earth Sciences and Health & Family Welfare Dr. Harsh Vardhan discussed ways to leverage existing areas of cooperation like water management and climate change and extend to new areas like machine learning artificial intelligence and Internet of things (IoT).
MEET THE SCIENTIST

PROFESSOR SANDEEP VERMA

Secretary, Science and Engineering Research Board
He is a renowned figure in the field of chemical biology. His research interests include peptide/protein assemblies, metal-organic frameworks and bioinspired soft matter. He has published about 185 papers and reviews in peer-reviewed journals. He serves as an Associate Editor of Chemical Communications, and is on the Editorial Advisory Boards of ChemBioChem, Journal of Peptide Science, and Cell Chemical Biology.

He is a recipient of Shanti Swarup Bhatnagar Prize, Swarnajayanti Fellowship, National Prize for Research on Interfaces between Chemistry and Biology; Ranbaxy Research Prize, Birla Science Prize, and Silver Medal, Chemical Research Society of India, to name a few. He is also an elected Fellow of Indian National Science Academy, Indian Academy of Sciences, National Academy of Sciences, India.

Prof Verma maintains an affiliation with Department of Chemistry, Center for Nanoscience and Soft Nanotechnology, and Center for Environmental Sciences and Engineering, Indian Institute of Technology Kanpur, India.

FEATURED INSTITUTION

NATMO makes spatial data accessible for visually impaired, virtual tourists
The National Atlas and Thematic Mapping Organisation (NATMO) is preparing a 3D geographic information system that will enable a person to undertake a virtual tour of monuments, museums, and important places in cities like Kolkata.

Such interactive maps have helped some overseas countries to boost tourism. NATMO said that they are running a pilot project and will start working with large buildings and other places of interest soon.