February is an auspicious month for science with the commemoration of announcement of Raman Effect being celebrated as National Science Day. Government of India designated 28 February as National Science Day (NSD) in 1986. Since then, theme-based science communication activities are carried out all over the country on this occasion. This time, the achievement of ‘Women in Science’ was highlighted.

In order to boost the participation of women in science, initiatives for gender advancement and equality in academic and research institutions were announced. President Ram Nath Kovind conferred national awards for science communication and popularization and women excellence awards for meritorious women scientists.

The month also saw a symposium on conservation, preservation and management of World Heritage in physical and digital space and a month long exhibition in the National Museum showcasing digital versions of some of India’s culture, heritage, monuments and forts.

In the newsletter we invite you to enjoy stories on how remote villages in water scarce Bundelkhand receive water supply with DST Support, how science exhibitions should focus on educating young students, a new low cost device for automatic testing of visual acuity of tiny tots and much more.

—DR. NAKUL PARASHER, EDITOR-IN-CHIEF

NATIONAL SCIENCE DAY BRINGS GENDER EQUALITY IN SCIENCE: PRESIDENT ANNOUNCES KEY INITIATIVES

President of India Ram Nath Kovind announced three key initiatives for gender advancement and equality in academic and research institutions on the occasion of National Science Day in a function held at Vigyan Bhavan. This year the theme for National Science Day is “Women in Science.”

Vigyan Jyoti is an initiative that will create a level-playing field for girls in high school to pursue Science, Technology, Engineering, and Mathematics (STEM) in their higher education. The Gender Advancement for Transforming Institutions (GATI) will develop a comprehensive Charter and a framework for assessing the Gender Equality in Science, Technology, Engineering and Mathematics (STEM). An online portal for science and technology resources for women will provide E-resources related to all women-specific government schemes, President Kovind highlighted.

READ MORE
**Movement to inspire rural entrepreneurship spreads far & wide with DST support**

Vigyan Ashram is running Fab Lab since 2002, whose operations are supported under the core support program. Youth between 15-20 years of age can join one year residential program of DBRT where the core staff of VA engages students of DBRT course in the various field trials and pilot studies.

**Heritage Symposium discusses conservation in physical & digital space**

Department of Science and Technology (DST) in collaboration with Indian Institute of Technology (IIT) Delhi and Ministry of Culture organised the two-day symposium to discuss conservation, preservation and management of World Heritage in physical and digital space.
New Programme of Cooperation was concluded during visit of the Brazilian President to India

A new Programme of Cooperation for 2020-23 in the field of Renewable energy including low carbon technologies; Earth system sciences including ocean sciences and climate change; Innovation and entrepreneurship; Information and communications technologies; Sustainable use of biodiversity; Biotechnology and human health and Agriculture was concluded and exchanged in presence of the Hon’ble Prime minister of India and Brazilian President on January 25, 2020. Aim to complement and deepen the ongoing bilateral cooperation between scientists, researchers and funding institutions, based on the principles of reciprocity, mutual benefits, mutual respect and sustainability.

Brightest message of star collapse from space: Indian scientists participate in a study

A team of scientists from more than 20 countries, including two scientists from Aryabhata Research Institute of Observational Sciences (ARIES), an Autonomous Institution of the Department of Science and Technology have spotted the highest energy photons from Gamma-ray bursts (GRBs).

New spray gel developed by INST could help take the bite out of frostbite

Scientists at the Institute of Nano Science and Technology (INST) in Mohali, an autonomous institution under the Department of Science & Technology, have developed a cold-stable spray gel that could be administered on-site for the immediate treatment of frostbite injuries and heal the wound.

New molecule against MDR Acinetobacter baumannii from JNCASR

A new polymer-based antibacterial compound has been found to be highly active against multidrug-resistant Acinetobacter baumannii, an organism responsible for a range of life-threatening infections such as pneumonia and meningitis.

Banking on the spider for future fibres

Scientists from the Raman Research Institute (RRI), an autonomous institute of Department of Science and Technology along with IISER Thiruvananthapuram and Azim Premji University, have revealed interesting mechanical behaviour of the silk fiber of the spider.

NEW INITIATIVES

SERB-IRHPA Call for proposals on COVID-19 and related respiratory viral infections
For more detail: http://www.serb.gov.in/home.php
MEET THE SCIENTIST

DR. N.C. TALUKDAR

Director of the Institute of Advanced Study in Science & Technology (IASST)

Dr. Talukdar’s focuses on research in the area of microbial diversity, plant-microbe interaction and their role in agroecosystem has been published in high impact journals, patented and translated into integrated nutrient management package in agriculture for soil and crop health improvement. His current research on traditional knowledge based drug discovery for metabolic syndrome has successfully developed herbal formulation against type-II diabetes which is undergoing clinical trial in Ayush mode. He has more than 97 research publications and 12 patents.

Dr. Talukdar who was Director of the Institute of Bio-resource and Sustainable Development (IBSD), an AI under DBT, is known as an institution builder and has built three laboratories in North-East India. He built infrastructure in Assam Agriculture University (AAU) for commercial production of microbial inoculants and later infrastructures such as Animal house, Zebra fish facility and sophisticated equipment laboratory for medicinal plant product development and testing in IBSD. He established a Microbial Repository Centre as a National Facility in IBSD for preservation of bacterial and fungal cultures isolated by researchers from Indo-Burman Biodiversity and Sikkim Himalaya biodiversity hotspots. A 40-acre Bioresource Conservation Park has been established in Harouro, Imphal which houses a rich collection of plants of more than 70 species of Zingiberaceae family, 40 minor edible fruits, aquatic fauna and high value plants.

During his tenure from 2015-2020, IASST which was taken over by DST as one of its AIs in 2009, grew exponentially. He played a significant role in improvement of economic and social status of several tribal villages of Assam through tech information.

Dr. Talukdar was a recipient of Canadian Commonwealth Fellowship, Food and Agricultural Organisation, Rome Fellowship and serving as Chairman/member of task force, academic, research and administration committees of different organisations. He carried out postdoctoral research in Hebrew University of Jerusalem, Israel and University of Warwick, UK.

FEATURED INSTITUTION

RRI soaring ahead in astrophysics, soft condensed matter, & other physics areas

Founded in 1948 by Nobel Laureate, Sir C V Raman, to continue his studies and basic research after he retired from the Indian Institute of Science, RRI was restructured to become an aided autonomous research institute receiving funds from the Department of Science and Technology of the Government of India.

Astronomy being one of the focus areas of the institution, the Astronomy and Astrophysics group at the institute is continuously delving into the physical, chemical, and dynamic properties of celestial objects to unravel the mysteries of the universe that stares at us when we look up at the sky.


This e-newsletter created by the DST communication team at Vigyan Prasar brings you brief information on scientific achievements and activities supported by DST. Each brief, links to detailed information on DST website. If there is any DST supported popular science event which requires wider outreach please share it with us. We also welcome your feedback/suggestions at DSTcommunication@vigyanprasar.gov.in, communicationdst@gmail.com

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