



INDIA SCIENCE AND INNOVATION WEEKLY

Ask the right questions, and nature will open the door to her secrets.

- Dr. C.V. Raman, The Nobel Prize in Physics 1930

IISER makes graphene cheaper

Scientists at the Indian Institute of Science Education and Research (IISER), Pune [India] created a gram of reduced graphene oxide (rGO), which is 100 times cheaper than the commercial rGO available. The institute is targeting on producing 100 gms of rGO by next year to be used to power electronic devices. It will also make another 400 gms to power electric vehicles.

CECRI researcher contribute to developing glucose biosensor

A team of researchers including a researcher from Central Electrochemical Research Institute [CECRI], Karaikudi, India have created an electronic biosensor that can be implanted to continuously monitor glucose level in diabetes patients. The device pairs an electron-transporting polymer with an enzyme that extracts electrons from its reaction with glucose in bodily fluids to power itself.

IIT-Hyderabad researchers developing device to detect protein

Indian Institute of Technology (IIT) Hyderabad Researchers are developing a simple, inexpensive and environmentally-friendly device that can detect biomolecule such as Bovine Serum Albumin (BSA). Assessment of BSA in blood can help in diagnosis of range of conditions such as malnutrition, kidney disease and liver abnormalities.

Advanced Security Ink to stop counterfeiting of currency notes

National Physical Laboratory, India has developed a security ink using the technique of dual emissive luminescent pigment. This technique is the first of its kind and has never been used for printing of notes or confidential documents.

6th Plastic Bank - IIP

Council of Industrial and Scientific Research – Indian Institute of Petroleum [IIP] opened its 6th Plastic Bank in Dehradun. The IIP has been converting polyolefinic waste into diesel which is of automotive grade and can be used in various classes of vehicles.

National Bio Entrepreneurship Competition

Eleven bio entrepreneurs in categories such as water and sanitation, maternal and child health, digital health, medical devices and agri-biotechnology have emerged winners in the 2019 edition of National Bio Entrepreneurship Competition (NBEC). NBEC, organised by the Centre for Cellular and Molecular Platforms (C-CAMP), is a nationwide platform for bio-entrepreneurs across India, to showcase their high-impact, deep tech business ideas in the Life Sciences and biotech domain. The competition had 17 industry partners including international partners from the USA, France and Singapore on board. NBEC 2019 witnessed 3000 applications from all across the country. The winners bagged a cumulative amount of INR 30 million in cash prizes and investment opportunities, as well as an exclusive scope for mentorship from key industry leaders.

A star and a planet get names of Indian women scientists

The International Astronomical Union (IAU) on December 17, 2019 announced that the white yellow star in Sextans constellation will be called 'Bhibha', a pioneering Indian woman scientist, and its Jupiter-like exoplanet will be known as 'Santamasa' which means 'clouded' in Sanskrit. The star has been named in honour of a pioneering Indian woman scientist Dr. Bibha Choudhury, who discovered subatomic particle, pi-meson. 'Bhibha' also means "a bright beam of light" in Bengali. The planet has been named 'Santamasa' to reflect the cloudy nature of its atmosphere. The IAU chose the name at the end of a global contest called 'NameExoWorlds', which was organised as part of its centenary celebrations.

India is world's third largest producer of scientific articles

With over 1.35 lakh scientific papers published, India has become the world's third largest publisher of science and engineering articles, according to the US National Science Foundation. As per its statistics, the number of scientific papers published worldwide increased from 1,755,850 in 2008 to 2,555,959 in 2018. India published 48,998 science and engineering articles in 2008. This increased to 1,35,788 articles in 2018. The global research output, as measured by peer-reviewed science and engineering (S&E) journal articles and conference papers, grew about 4% annually over the last 10 years; in India it grew at the rate of 11% which is higher than the average growth rate.

Special Update: National Centre for Polar and Ocean Research (NCPOR)

The National Centre for Polar and Ocean Research (NCPOR) was established as an autonomous Research and Development Institution of the Ministry of Earth Sciences (formerly Department of Ocean Development), Government of India on the 25th May 1998. The Centre is designated as the nodal organization for the co-ordination and implementation of the Indian Antarctic Programme, including the maintenance of India's permanent station in Antarctica. Spread across 147,660 sq. mts sprawling area, NCPOR is located in India's most seafaring state of Goa.

Year-round maintenance of the two Indian stations (Maitri & Bharati) in Antarctica is the primary responsibility of the Centre. Maitri (1989) and Bharati (2011) were established, for carrying out research by the Indian scientists in all disciplines of polar research. These stations have been provided with comfortable living accommodations, state of the art laboratories and well-equipped library and communication systems.

Further details can be found at:
<http://www.ncaor.gov.in/>