Present blog will make you all aware about the recent technological discoveries in Health Sector, Artificial Intelligence, Automobile Sector, Banking Sector, Energy and Power Sector, Agriculture.

From blockchain technology to gene-editing to augmented reality, technological advancements have made our lives easier and better in many ways. The term technology comes from the Greek word techne, meaning art and craft, and the word logos, meaning word and speech.

Health Sector

1. Data-Driven Research to End Tuberculosis- "Dare2eraD TB": Dr. Jitendra Singh, Union Minister of Science & Technology announced the launch of Data-Driven Research to Eradicate TB- "Dare2eraD TB" by the Department of Biotechnology, M/o Science & Technology.

2. Corbevax was given emergency approval by the DGCI for children aged 12 to 18: The Drugs Controller General of India (DCGI) has authorised Corona Vaccine Biologicals E Ltd Corbeaux for children aged 12 to 18. Corbevax, a coronavirus vaccine developed by the Hyderabad-based pharmaceutical company Biological E Ltd, is also India's third homegrown vaccine. Covaxin, manufactured by Bharat Biotech, will be administered to children aged 15 to 18 beginning January 3.

3. The Very First Malaria Vaccine W.H.O. approved: The World Health Organization (WHO) recommends that children in Sub- Saharan Africa and other areas with moderate to high P. falciparum malaria transmission receive the RTS,S/AS01 (RTS,S) malaria vaccine. GlaxoSmithKline, a British pharmaceutical company, created the vaccine (GSK). The vaccine protects against Plasmodium falciparum, the most lethal of the five parasite species.

4. The world's first 'Plant-based' smart air purifier created by IIT Ropar: The Indian Institutes of Technology (IIT) Ropar and Kanpur, as well as the Faculty of Management Studies at Delhi University, have collaborated to launch "ubreathe Life," a living-plant-based air purifier. This air purifier will help to purify the air in indoor spaces such as hospitals, schools, offices, and homes. It is the world's first cutting-edge 'Smart Bio-Filter,' capable of making breathing fresh.

Artificial Intelligence

1. Artificial Intelligence & Robotics Technology Park: The Indian Institute of Science (IISc) in Bengaluru launched the country's first Artificial Intelligence and Robotics Technology Park (ARTPARK) with a seed fund of Rs 230 crore. ARTPARK intends to use futuristic technologies to connect the unconnected, with a focus on building India's world-class Artificial Intelligence and Robotics Innovation ecosystem. The ARTPARK aims to channel innovations to have a societal impact by executing ambitious mission-mode R&D projects in healthcare, education, mobility, infrastructure, agriculture, retail, and cyber-security to solve problems that are unique to India.

2. "PARAM Ganga" Supercomputer installed by C-DAC at IIT Roorkee: At **IIT Roorkee, Centre for Development of Advanced Computing (C-DAC)** designed and installed the **"PARAM Ganga"** Supercomputer under Phase II of the National Supercomputing Mission(NSM). PARAM Ganga has **1.66 Petaflops** of supercomputing capacity.

3. India's first AI-based job platform for persons with disabilities - "Swarajability": The Indian Institute of Technology (IIT-Hyderabad) has released the beta version of 'Swarajability,' an artificial intelligence-powered job portal that assists people with disabilities in acquiring relevant skills and finding jobs.

Automobile sector

Green Hydrogen Fuel Cell Electric Vehicle (FCEV): Nitin Gadkari, Union Minister for Road Transport and Highways unveiled the Toyota Mirai, the world's most advanced technology-developed Green Hydrogen Fuel Cell Electric Vehicle (FCEV). It is a significant initiative that will promote clean energy and environmental protection by reducing reliance on fossil fuels, making India 'Energy Self-reliant' by 2047. Powered by hydrogen, Fuel Cell Electric Vehicle (FCEV) is one of the best Zero Emission solutions. It is entirely environmentally friendly with no tailpipe emissions other than water.
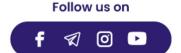
Energy and power sector

1. India's first Virtual Smart Grid Knowledge Centre launched in Manesar: As part of the Azadi ka Amrit Mahotsav Programme, Union Minister of Power R.K. Singh launched the Virtual Smart Grid Knowledge Centre (SGKC) and Innovation Park. Power Grid established the SGKC for demonstration and advancement of frontier smart grid technologies.

2. First Start-up of India in Daylight Harvesting Technology: The Ministry of Science and Technology has decided to support a one-of-a-kind start-up in the latest Daylight Harvesting Technology in order to reduce carbon footprint and improve energy efficiency in buildings. The company's goal is to build green and net-zero buildings, as well as to participate in and contribute to national missions under the National Climate Change Action Plan (NAPCC).

3. 'AQVERIUM' - India's first Digital Water Bank launched in Bengaluru. AquaKraft Ventures, a company that specialises in sustainable initiatives to provide safe drinking water and sanitation to all, spearheaded the initiative. Its goal is to improve the water management system.

Banking sector

Shaktikanta Das, Governor of the Reserve Bank of India (RBI), launched the Unified Payments Interface (UPI) service for feature phones. The service, known as UPI123Pay, will allow 40 crore feature phone users in India to access the payment service. In addition, the central bank launched **DigiSaathi**, a 24-hour helpline for digital payments.

About Unified Payments Interface (UPI): UPI is an instant real-time payment system developed by National Payments Corporation of India (NPCI) that allows for inter-bank, peer- to-peer and person-to-merchant transactions. The National Payments Coordinating Council (NPCI) is the umbrella organisation for all digital payments.

Agriculture

1. Biodegradable nanoparticle developed by IIT Kanpur: Researchers at the Indian Institute of Technology (IIT) Kanpur have developed a biodegradable nanoparticle that can be used instead of chemical-based insecticides to protect crops from bacterial and fungal diseases. Nanoparticles would reduce the risk of crop infection while also increasing agricultural productivity. According to a report released in June 2021 by the United Nations Food and Agriculture Organization (FAO), farmers worldwide lose up to 40% of their crops to insects and illnesses each year. This resulted in a $290 billion loss to the global economy.

2. IIT Roorkee launched 'KISAN' mobile app in Uttarakhand: The KISAN app provides farmers with easy access to weather forecasts and weather-based Agrometeorological Advisory Bulletins for all six blocks of the Haridwar district. With the help of Dr. C.S. Jha, an Outstanding Scientist and Chief General Manager at RRSC, NRSC, ISRO, Hyderabad, Dr Khushboo Mirza, Senior Scientist, Regional Remote Sensing Centre (RRSC), National Remote Sensing Centre (NRSC), Indian Space Research Organization (ISRO), New Delhi, developed the app.

Hope you found this blog interesting and informative. Stay connected for more such blogs.