Science and Technology

Bitcoin use causing huge CO2 emissions

- The use of Bitcoin, a popular virtual currency emits over 22 megatonnes of carbon dioxide annually, comparable to the total emissions of cities such as Las Vegas and Vienna, a study has found. Researchers from Technical University of Munich (TUM) in Germany carried out a detailed calculation of the carbon footprint of the Bitcoin system. Bitcoin mining has increased rapidly in recent years, raising the question of whether it is imposing an additional burden on the climate.

Scientists create a global map of where groundwater meets oceans

- Scientists have created high-resolution maps of points around the globe where groundwater meets the oceans and the first such analysis of its kind that may help protect both drinking water and the seas.
- In a study published in the journal Geophysical Research Letters, researchers from The Ohio State University in the U.S. showed that nearly one-half of fresh submarine groundwater discharge flows into the ocean near the tropics. The findings may help coastal communities better protect and manage their drinking water.

International Space Station to be open to tourists from next year

- U.S. space agency NASA said on Friday that it would open up the International Space Station to business ventures including space tourism. There will be up to two short private astronaut missions per year. The missions will be for stays of up to 30 days. As many as a dozen private astronauts could visit the ISS per year according to NASA.

NCRA to host International Pulsar Timing Array meet

- The city-based National Centre for Radio Astrophysics (NCRA) in pune is all set to host the five-day annual International Pulsar Timing Array (IPTA) meet from June 17 to 21. The meet is a collaboration of radio astronomers from a dozen countries across the globe. India has been an associate member of the IPTA since the last four years. But this is the first time that India is hosting the annual meeting
- The IPTA is a collaboration of radio astronomers from a dozen countries across the globe. It uses more than 12 radio telescopes all over the world with an aim to detect ultra-low frequency gravitational waves. More than 40 expert international astronomers and 30 international students are expected to participate in the event, besides several Indian participants.

Einstein's relativity document gifted to Nobel museum

- The Nobel Museum in Stockholm has been gifted Albert Einstein's first paper published after he received the Nobel Prize in 1922 and discussing his then still controversial relativity theory. The paper, written in November 1922 while Einstein was attending conferences in south-east Asia, was published a month later by the Prussian Academy of Sciences.

BS-VI norms released for two-wheelers

- Bharat Stage-VI (BS - VI) norms for two-wheelers have been released. The Director, International Centre for Automotive Technology (ICAT) Dinesh Tyagi released India's first Type Approval Certificate for (BS - VI) norms in New Delhi. In order to curb air pollution through the vehicular emissions, the government has decided to implement the BS VI norms with effect from 1st April 2020.

DRDO launches Technology Demonstrator Vehicle

- Defence Research and Development Organisation (DRDO) launched a Technology Demonstrator Vehicle to prove a number of critical technologies for futuristic missions from Dr Abdul Kalam Island off the coast of Odisha. Various radars, telemetry stations and electro optical tracking sensors tracked the vehicle through its course. The data has been collected and will be analysed to validate the critical technologies.

Inventions / Discover

20 new species of Balsam in Eastern Himalayas
- 23 new species of group of plants commonly known as Balsams or jewel-weeds discovered 23 new species from the eastern Himalayas. Consisting of both annual and perennial herbs, balsams are succulent plants with high endemism. Because of their bright beautiful flowers, these group of plants are of prized horticultural significance.

Ai-Da, the robot

- Ai-Da is the brainchild of Aidan Meller, who claims she is the world's first ultra-realistic humanoid artist, able to draw creatively thanks to in-built artificial intelligence (AI) technology. The humanoid uses artificial intelligence to make images that have been sold for over £1 million.

ISRO for 1st time opens its laboratories for Indian school students

- The Indian Space Research Organization ISRO has, for the first time, opened its laboratories for Indian school students to undergo two-week training from this year. The first batch of 108 students drawn from all states and Union Territories recently completed their exposure in its laboratories in Bengaluru, Sriharikota, Thiruvananthapuram and other places.
  The training module has been devised as part of its new Young Scientists Programme, or Yuva Vigyanik Karyakram, YUVIKA.

Space Science

ISRO to launch Chandrayaan-2 between July 9-16

- The Indian Space Research Organisation has found a suitable window to launch India's second spacecraft to the moon, 'Chandrayaan-2' between July 9 and July 16 with an expected soft landing on the moon on September 6. ISRO sources have confirmed that GSLV Mark-III will launch Chandrayaan-2 from Sriharikota during the favoured window time. ISRO has said that all three modules of the moon mission, Orbiter, Lander-Vikram and Rover-Pragyan are ready.

Lander and rover meant for Chandrayaan-2 reaches ISRO's launch pad at Sriharikota

- The lander and rover meant for India's second lunar mission Chandrayaan-2 reached the ISRO's launch pad at Sriharikota. The rover called Pragyan is installed within the lander known as Vikram. Chandrayaan-2 will be launched aboard India's most powerful booster GSLV-Mark-3 tentatively early in the morning on July 15th with the aim of making the lander to soft-land on the South Pole of the moon by September 6th. India would be the fourth country to have its probe soft-land on the moon.

China launches its first sea-based space rocket

- China launched a space rocket from sea for the first time. A Long March 11 rocket was launched from a ship in the Yellow Sea. China now spends more than Russia and Japan on its civil and military space programmes — unveiling ambitious plans for missions to the moon and beyond in the coming decade.

ISR to launch India's own space station

- India is planning to launch its own space station. Addressing a press conference in New Delhi, ISRO chief K Sivan said, the ambitious project which will enable the agency to send more humans to space when executed.
- He said, India will not join the International Space Station and the mission will also be an extension of the Gaganyaan project implying that there will be several phases to the human space mission project. The weight of the space station is likely to be 20 tonnes. A space station is a spacecraft capable of supporting crew members, designed to remain in space for an extended period of time and for other spacecraft to dock.

NASA to open sealed moon rock samples

- The restricted lab of NASA is home to hundreds of kilos of moon rocks collected by Apollo astronauts close to a half-century ago. And for the first time in decades, NASA is about to open some of the pristine samples and let geologists take a crack at them with new technology.

NASA's PUNCH mission

- NASA has selected Texas-based Southwest Research Institute to lead its PUNCH mission which will image the Sun. This is a landmark mission that will image regions beyond the Sun's outer corona. Dipankar Banerjee, solar physicist from Indian Institute of Astrophysics is also a Co-Investigator of the PUNCH mission. PUNCH, which stands for "Polarimeter to Unify the Corona and Heliosphere," is focused on understanding the transition of particles from the Sun's outer corona to the solar wind that fills interplanetary space.

App/ Web Portal/ Toll Free

AYUSH Ministry launches App to locate yoga centres, instructors

- AYUSH Ministry has launched a mobile application to enable people to locate yoga events and centres providing training and instructors. The app 'yoga locator' is a map-based location app which will also enable yoga instructors to register themselves and reach out to a large number of people.

Assam State Transport Corporation's Chalo app

- Assam Transport Minister Chandra Mohan Patowary launched the State Transport Corporation's Chalo app for Guwahati. The app will help commuters to know about the live arrival time of their bus so they can plan their travel accordingly. People can also track the live GPS position of their bus on a map. It will also ensure safe travel with features such as Emergency SOS.

Goa government to launch digital agriculture platform 'Agricloud

- The Goa government will soon launch 'Agricloud', a digital platform for agriculture management and tracking of farm subsidies. 'Agricloud' is a three-way interface that will allow the agriculture ministry to register farmers and track subsidies and inputs to them, while helping cultivators to get information on official advisories, weather, market prices among other things. 'Agricloud' will create an e-commerce platform allowing farmers to sell directly to customers,".

'E-Governance Initiatives for ST Welfare Schemes'

- Shri Arjun Munda, Union Minister for Tribal Affairs launched the "e-governance initiatives for ST Welfare schemes" at a function organized by Ministry of Tribal Affairs.
- Ministry of Tribal Affairs has developed online portals namely DBT Tribal (https://dbttribal.gov.in/) and NGO Grants Online Application & Tracking System (https://ngograntsmota.gov.in/) for bringing in greater e-Governance in implementation of welfare schemes for STs.

SARATHI application

- This Ministry of Road Transport and Highways through its flagship application called SARATHI (for Driving License) developed by NIC (National Informatics Centre) have a common countrywide database of all driving license holders. Almost 15 crore driving license records are available in its central repository (National Registry). The SARATHI application has the feature to identify duplicate records in real time online basis and access information about the challans if any, which facilitates the licencing authority that delinquent drivers do not get a duplicate driving licence.

HPFS Mobile App

- Union Minister of Minority Affairs Mukhtar Abbas Naqvi launched an online portal http://haj.nic.in/pto/ and a mobile App (HPFS) for the better organisation and experience of all Indian pilgrims. The quota for Indians to perform Haj has increased from 1,32,000 pilgrims to two lakh pilgrims in the last five years.

Complaint Management System (CMS) application

- RBI Governor Shaktikanta Das launched the Complaint Management System (CMS) is a software application. This application is for lodging complaints against banks and NBFCs with a view to improve customer experience in timely redressal of grievances.
- Mr Das said application also improves transparency by keeping the complainants informed through auto-generated acknowledgements and enabling them to track the status of their complaints and file appeals online against the decisions of the Ombudsmen, where applicable.

General Knowledge Study Materials [Click Here for Download](#)

All subject Study Materials [Click Here for Download](#)

2018 Current Affairs Download – [Click Here](#)

Whatsapp Group **Click Here**

Telegram Channel **Click Here**