TAMIL NADU

Stanley Medical College and Hospital – to start a ‘Stem cell’ Lab by Early 2019
✓ The lab will facilitate research in organ failures and therapy of blood disorders
✓ The project, which was approved in 2008, will offer free-of-cost treatment to patients with diseases such as Leukemia, Multiple Myeloma, Lymphoma and Thalassemia apart from treating end-stage liver diseases
✓ The stem cells are found in Embryos, Placenta and cord blood and have the capability to develop into any kind of tissue

IIT Madras – develops a simulator called ‘MADRaS (Multi-Agent Driving simulator) – to test algorithms of driverless or autonomous cars with multiple traffic conditions
✓ It was developed by Artificial Intelligence researchers Abhishek Naik from IIT, Madras and Anirban Santara from IIT, Kharagpur
✓ MADRaS is a fully controllable multi agent extension of ‘Torcs’, a simulator popularly used for autonomous driving research
✓ It is also the only open source multi-agent simulator available at present in the country
✓ Torcs – can control the behavior of only one car at a time, while the other vehicles follow pre-specified behavior
✓ Other open source autonomous driving simulators like Carla, Deepdrive and AirSim also support only single agent behavior

2nd foreign consignment of Sand comes to Kamarajar Port, Ennore from Malaysia
✓ The 52,068 metric tonne of Sand was off-loaded from the vessel, MV Raffles Quay
It was purchased by the company, InRhythm Energy Private Limited based in Madhanpur, Hyderabad
Earlier on September 21, the 1st consignment of 56,750 metric tonne came to the Ennore port in the vessel MV Aurelia
The sand is sold ‘online’ by the government - at a price of Rs 10,350 for one unit (around 4.5 tonnes)

**STATES**

- Himachal Pradesh government – has approved the implementation of ‘Sashakt Mahila Yojna’

![Sashakt Mahila Yojna](image)

- The scheme aims to empower rural women by providing them livelihood opportunities and improving their skill by imparting training
- It also decided to implement the Himachal Healthcare Scheme (HIMCARE) in the state
- It provides cashless treatment coverage of Rs 5 lakh per year per family

- Maharashtra government – has appointed Dr Jagannath Dixit as the brand ambassador of its anti-obesity campaign

![Dr Jagannath Dixit](image)
Dr Dixit, pioneer of ‘Two-meals-a-day’ diet plan to control Diabetes, is the Head of department of Community medicine at Latur medical college

He says that his diet plan theory is based on the plan drafted by Late Dr Shrikant Jichkar between 1997 and 2004

Dr Dixit, who has been teaching for 26 years has won several national and state awards

NATIONAL

Ministry of HRD – launches ‘Institution’s Innovation Council’ (IIC) programme under the ‘Innovation Cell’ of the Ministry

The ‘Innovation Cell’ of the Ministry was established at AICTE to encourage the culture of ‘Innovation’ in all higher education institutions in the country

The main purpose of the newly-launched ‘IIC’s is to encourage ‘innovation’ among young students by exposing them to new ideas and processes

Through this initiative, India hopes to improve with a good rank in global innovation ranking in the next few years

India – to overtake Brazil in sugar production during 2018-19 after 15 years

India’s sugar production is expected to touch 35.9 million tones with an increase of about 5.2% than last year

Brazil’s production touched 30.6 million tones with a drop of 21% than last year due to lower sugarcane yields

Thailand is the second largest sugar exporter after Brazil

Indian Railways – announces ‘Reliance Jio’ as its Service Provider from January 1, 2019

Railways has been using Bharti Airtel for the last 6 years as its telecom partner

Railways pay around Rs 100 crore bill per year to Bharti Airtel for its 1.95 lakh mobile phone connections
The shift to Jio is expected to reduce at least 35% of the national transporter’s phone bills.

While Airtel is serving around 1.95 lakh railway subscribers, Jio will serve 3.78 lakh personnel of the railway.

Last month, Reliance Jio Infocomm had emerged as the lowest bidder for the account beating Airtel and Vodafone.

Reliance Jio beat the other contenders with the low cost Data even though all of them offered free calls.

Researchers from IIT, Hyderabad – develops a Smartphone based Sensor to detect Adulteration in Milk

They have developed algorithms for smartphones to accurately detect change in acidity.

The sensor-chip measures pH, which is an indicator of acidity.

They have also developed a detector system to measure level of acidity in milk using an indicator paper, which changes its colour based on different pH levels.

Infosys, IT services firm – to set up 3 innovation hubs in Australia and create 1200 jobs by 2020

The company will hire 40% of Australian university graduates for these jobs.

The Bengaluru-based company has already opened two technology and innovation hubs, one in Indianapolis, Indiana and another in Raleigh, North Carolina in the US.

Indian Chamber of Commerce (ICC) – signs MoU with IIM Calcutta Innovation Park – to facilitate startup ecosystem in East and Northeast India

IIM Innovation Park is currently incubating 40 start-ups with almost half from West Bengal.

ICC is a premier industry body operating from Kolkata.

It was established in 1925 by Mr G D Birla.
- It is also the only chamber from India to win first prize in World Chambers Competition in Quebec, Canada

- Airports Authority of India (AAI) – signs MoU with US Trade and Development Agency (USTDA) – to develop a roadmap for the modernization of its Air traffic services

- Under the agreement, US aircraft manufacturer Boeing will provide technical assistance to AAI

**COMMITTES**

- Prime Minister – sets up a National Implementation Committee – to commemorate the 550th birth anniversary of Guru Nanak in the country and abroad
  - Chairman – Rajnath Singh, Minister of Home
  - Members – Arun Jaitley, Minister of Finance and Dr Mahesh Sharma, Minister of State for Culture
  - Shiromani Gurudwara Parbandhak Committee, which is the apex religious body of the Sikhs, will be the knowledge partner for event celebrations
  - Government will also develop ‘Sultanpur Lodhi’ in Punjab as a heritage city, where Guru Nanak is believed to have spent most of his life
  - Moreover, high powered telescope will be installed on Indian side to view Kartarpur Sahib in Pakistan where the first Sikh guru spent his last days
  - Chairs in the name of Guru Nanak will be set up in UK and Canada
CONFERENCES & SUMMITS

➢ 49th International Film Festival of India (IFFI) – starts in Panaji, Goa

- Theme 2018 – New India
- Focus State – Jharkhand (Jharkhand Day to be celebrated on 24th November during the festival)
- Focus Country – Israel
- The festival will showcase 212 films from over 68 countries
- International Competition section has 15 films out of which 3 are Indian
- The opening film of the festival was “The Aspern Papers”
- This year as extension of Khelo India Branding, Indian Sports Biopics will also be screened during the festival
- The IFFI was founded in 1952 and held annually in Goa

➢ ConMac 2018 – kicks off in Kathmandu, Nepal

- It is a three-day exhibition of construction equipment and technology organized by Confederation of Indian Industry (CII) and the Embassy of India in Nepal
More than 150 Indian companies including JCB, L&T, Hyundai, Caterpillar and Tata Hitachi will exhibit their products and services.

- **12th World Congress on Mountain Medicine – begins in Kathmandu, Nepal**

  Theme - “Mountain Medicine in the Heart of the Himalayas”
  - It was held by International Society for Mountain Medicine for the first time in Nepal
  - The biennial meet focuses on Science and research aspects of mountain medicine
  - It will also include workshops related to trekking, expedition medicine and clinical education

**PERSONALITIES**

- **Millie Bobby Brown – named as UNICEF’s latest ‘Goodwill Ambassador’**

  - The 14-year old, Emmy award nominated actor of Netflix sci-fi drama ‘Stranger Things’, is the youngest person ever to assume the position
  - The announcement was made on the eve of World Children’s day on November 20, 2018
SCIENCE, TECHNOLOGY & ENVIRONMENT

- NASA’s ‘Insight’ – becomes the first American spacecraft to land in Mars since the Curiosity rover in 2012
  
- It also becomes the first dedicated spacecraft to explore underground of Mars
  - Insight is a 3-legged, 6-foot one-armed machine that will dig deep and listen for quakes
  - It will remove the two main science experiments from the lander’s deck and place them directly on the Martian surface, something which was never been attempted before

- Morocco – launches its second earth observation satellite ‘Mohammed VI-B’ onboard Arianespace Vega Rocket - from French Guiana, South America
  - It will be placed at same orbit as its twin satellite Mohammed 6-A, the first Moroccan satellite launched in November 2017
  - The 1,100-kilogram satellite was developed by Thales Alenia Space and Airbus Defence and Space

- ‘Explorer’ – World’s 1st medical imaging total body scanner – has started producing its first scan images
The scanner can capture 3D picture of the whole human body within 20-30 seconds

It was developed by scientists from the University of California – Davis in the US in partnership with Shanghai-based United Imaging Healthcare (UIH)

It is a combination of positron emission tomography (PET) and X-ray computed tomography (CT) scanner

The first images of the scanner will be displayed at the Radiological Society of North America meeting commencing on November 24, 2018 in Chicago, US

- NASA – selects ‘Jezero Crater’, an ancient Martian river delta - as the landing site for its upcoming Mars 2020 Rover Mission

  - The mission will be launched in July 2020 from Cape Canaveral Air Force Station in Florida, US
  - It will explore habitable conditions and microbial life in Mars and look out for rock and soil samples in the red planet

- Elon Musk, CEO of SpaceX – renames its ‘BFR’ rocket as ‘Starship’
  - BFR was referred as the “Big Falcon Rocket”
  - It aims to carry people to the Moon and Mars some day
  - The 387-foot tall rocket has two stages in its launch
  - The first stage is with engines and fuel systems, called ‘Super Heavy’
  - The second stage is for the Passengers ride
  - The estimated cost of the rocket system is $5 billion
APPOINTMENTS

- Kim Jong-yang of South Korea – elected as the President of Interpol, International Police Body

  - He worked in the South Korean police for more than 20 years before retiring in 2015 and in the process, became the first South Korean to head the organisation
  - He beat Russia’s Alexander Prokopchuk, a Police Major-General and one of the Interpol’s four vice-presidents
  - He replaces Meng Hongwei of China, who resigned in September 2018
  - Kim, acting President, has been elected for a two-year term and will complete the term of former President Meng, which ends in 2020

- Voreqe Bainimarama – was reelected for a second term as the Prime Minister of Fiji

  - Bainimarama’s Fiji first party secured 27 seats out of 51 seats in the parliament
  - This is Fiji’s second general election since a military coup in 2006 and the last election took place in 2014
AWARDS

- Shyama Prasad Ganguly, former Professor at Jawaharlal Nehru University – was honoured with Mexican Order of Aztec Eagle, the highest civilian honour given to a foreigner by the Mexican Government.

- He was the former professor of Spanish and Latin American Studies in the University.
- He is first Indian Academician to get this award.
- The previous recipients of the prestigious honour include Microsoft founder Bill Gates, Nobel Economics Laureate Amartya Sen, writer and Nobel Literature Laureate Nadine Gordimer.
- Royal Eagle is the national animal of Mexico.
- The award was created in December 1933 by the President, Abelardo L Rodriguez.

SPORTS

- Wasim Jaffer – became the 1st batsman to score 11000 runs in Ranji Trophy.

- Jaffer, the former Mumbai player who plays for Vidharbha currently, achieved the feat in the Ranji match against Baroda.
- The 40-year old batsman scored 153, his 54th first-class hundred in the match.
- Jaffer played 31 Tests and 2 ODI’s for India.
INTERNATIONAL DAY

➢ World Fisheries Day – November 21

✓ The day highlights the importance of healthy ocean ecosystems to ensure the stock of fishes in the world

➢ World Television Day – November 21

✓ It was initiated in December 1996 by UN General Assembly
✓ The day commemorates the first World Television Forum held in 1996
✓ The day recognizes that television plays a major role in presenting different issues that affect people
World Hello Day – November 21

- The observance of the day began with the conflict between Egypt and Israel in 1973
- The concept was created by Brian McCormack, a Ph.D. graduate of Arizona State University, and Michael McCormack, a graduate of Harvard University
- The way to celebrate World Hello Day is by greeting at least 10 people during one day

REPORT

World Malaria Report – released by World Health Organisation (WHO)

- India recorded a 24% reduction in malaria cases in 2017 compared to 2016
- Till Sept 2018, India reported 2,76,488 malaria cases
- Malaria deaths declined to 29 in 2018 (till Sept) from 194 in 2017
- India accounts for 4% of the global malaria burden
- 15 countries in sub-Saharan Africa and India carried almost 80% of the global malaria burden
- Globally, an estimated 219 million cases of malaria occurred worldwide in 2017

- India is the only country to have achieved a substantial decrease in malaria cases in 2017 among the 11 highest burden countries globally
- Odisha contributed to nearly 40% of all malaria cases in India
- In 2018, WHO certified Paraguay as malaria-free, becoming the first country in the American continent to receive this status in 45 years
20 YEARS OF INTERNATIONAL SPACE STATION (ISS)

The International Space Station (ISS) – turns 20 years on November 20, 2018

- The project was initiated by Roscosmos, Russian space agency on November 20, 1998 with the launch of US funded, Russian-built ‘Zarya’ module from the Baikonur Cosmodrome in Kazakhstan
- ISS was a habitable artificial satellite, which currently serves as a giant orbiting observatory and laboratory, 250 miles above Earth
- ISS’s first crew included Astronaut Bill Shepherd and cosmonauts Yuri Gidzenko and Sergei Krikalev, who reached the station on November 2, 2000
- According to NASA, 230 individuals from 18 countries have visited the station so far
- It is a serving example of collaboration between US and Russia even after so many diplomatic upheavals
- NASA has already committed funds to ISS until 2024
- ISS - Facts
  - ISS is the largest manned object in space at 375 ft length
  - It can accommodate 6 spacecrafts at a time
  - It is the single most expensive object ever built at £93.4 billion
  - It is the third brightest object in the Earth’s night sky after the moon and Venus
  - It weighs 419,725 kg including the weight of spacecrafts
  - It orbits the earth approximately once every 90 minutes
  - The astronauts float while doing their daily activities due to Zero gravity
Nasa’s Peggy Whitson set the record of being the longest-serving human in space on September 2, 2017.
The station has 6 sleeping quarters, a gym and a 360-degree bay window with only two bathrooms.
It has been continuously occupied since November 2000.
It is the 9th space station to be inhabited by crews, following the Soviet and later Russian Salyut, Almaz, and Mir stations and Skylab from the US.