

CURRENT AFFAIRS SNIPPETS : SEPTEMBER 2016

STATE

Gurgaon officially renamed Gurugram

The Union Government has given its approval to change the name of Gurgaon to 'Gurugram'. With this both the city as well as the district of Gurgaon would be known as Gurugram. It was announced by Chief Minister Manohar Lal Khattar after presiding over the first meeting of the State-level 'Swarna Jayanti Celebrations Committee' at Panchkula.

Haryana is a historic land of the Bhagwat Gita and Gurgaon had been a centre of learning. It had been known as Gurgaon since the times of Guru Dronacharya. Gurugram is the mythological name derived from Guru Dronacharya, the master of archery in Mahabharata who groomed the Pandavas and Kauravas in war tactics. It is said the village was given as 'gurudakshina' to Guru Dronacharya by the Pandavas and hence it came to be known as Gurugram. However in course of time got distorted to Gurgaon.

Presently, Gurugram is the corporate hub of Haryana on outskirts of Delhi. It is known both nationally and globally as industrial, software, information technology and corporate hub. The offices of several leading Indian companies and multinational corporations (MNCs) are located here.

World's largest solar power plant commissioned at Kamudhi, Tamil Nadu

The world's largest solar power plant with an installed capacity of 648MW was commissioned at Kamudhi in Ramanathapuram district of Tamil Nadu. The plant was set up on an area of around 5,000 acres by Adani Group at a total cost of Rs 4,550 crore. It was connected to the grid through a sub-station.

Kamuthi Solar Power Project is a solar photovoltaic power generating station at Kamuthi. It is considered the world's largest single location solar project. The entire 648 MW is now connected to the Kamuthi 400 KV substation of Tantransco.

The plant was set up the plant in eight months. For this purpose, Adani Group had sourced equipment and machinery from various parts of the world. The plant comprises 25 lakh solar modules, 3.8 lakh foundations, 27,000m of structure, 154 transformers, 576 inverters and 6,000km length of cables. A total of around 8,500 people had worked in a day to set up the plant in the stipulated time.

HRD Minister inaugurates Super Computer PARAM-ISHAN at IIT Guwahati

The Union Human Resource Development (HRD) Minister Prakash Javadekar on 19 September 2016 has inaugurated the super computer PARAM ISHAN at IIT Guwahati campus. PARAM ISHAN is the fastest and most powerful computer in North East, Eastern and Southern region of India outside Bengaluru (Karnataka).

PARAM ISHAN has been jointly developed by IIT Guwahati and C -DAC (Centre for Development of Advanced Computing). It has a peak computing power of 250 Teraflops and 300 terabyte capacity and can be used in the application areas like computational chemistry, computational fluid dynamics, computational electromagnetic, civil engineering structures, nana-block self assemble, optimization and others. It will help to augment the research initiatives and also in creating an ecosystem for attracting right talents to the field of research. It can be also used for Weather, climate modeling and seismic data processing.

2016 BRICS Convention on Tourism begins in Madhya Pradesh

The 2016 BRICS Convention on Tourism has begun at UNESCO World heritage site Khajuraho in Madhya Pradesh to promote intra-regional tourism. The two day convention was inaugurated by Union Minister of State (MoS) for Tourism and Culture. The convention has been organised as a precursor to the BRICS Summit to be held in Goa in October 2016.

In this two day convention, delegates from the BRICS countries viz. Brazil, Russia, India, China and South Africa are participating. The event will comprise of inter-governmental exchange of views and ideas and panel discussions on different subjects including cooperation between the BRICS countries for promoting intra-regional tourism. Business to Business meetings between the India Travel Trade and their counterparts from the BRICS countries had been organised. During the convention, elements of culture, handicrafts and cuisine from different regions of India had been showcased.

Khajuraho Temple is a group of Hindu and Jain Temples in Madhya Pradesh build by Chandela Dynasty between 950 and 1050 AD. It is an UNESCO World heritage Site.

Odisha Government launches Biju Kanya Ratna Yojana

The Odisha Government on 3rd Sept has launched the Biju Kanya Ratna Yojana (BKRY) for the development of girls in three districts of the state. The scheme was launched by Chief Minister Naveen Patnaik and will be implemented in Ganjam, Dhenkanal and Angul districts on a pilot basis for three years. The objective the scheme is to improve Sex Ratio at Birth (SRB) and Child Sex Ratio (CSR) in the three districts. The CSR has declined from 967 in the 1991 census to 941 in the 2011 census in Nayagarh, Dhenkanal, Angul and Ganjam districts. However, Nayagarh is covered under Beti Bachao Beti Padhao scheme. The scheme will ensure enrolment of girls in elementary education and also track dropout girls from schools besides creating a better environment for them. It will also create awareness on gender discrimination against girls, their nutrition, health and education. It also includes provision of toilets for girls in every school, self-defence training and along with promotion of access to education. It also seeks to sensitise adolescent girls on reproductive and sexual health issues, training of elected representatives and grassroots functionaries as community champions. According to the provision of BKRY, the state government will spend 3.5 crore rupees for the three-year planned scheme, which is expected to be completed by 31 March 2019.

NATIONAL

Indian Army conducts surgical strikes on terror launch pads across LoC

Indian Army conducted surgical strikes on terror launch pads across the Line of Control in Pakistan-Occupied Kashmir (PoK) i.e. along India's de-facto border with Pakistan. The surgical strikes were India's first direct military response to attack on Uri army base by Pakistan-based militants that had killed 18 Indian soldiers. The motive of the operation was to hit out at the terrorists who were planning to infiltrate into the Indian territory. During the operation, significant casualty was caused to terrorists .

A surgical strike is a military attack which results in only damage to the intended legitimate military target, and no or minimal collateral damage to surrounding structures, vehicles, buildings, or the general public infrastructure and utilities.

Indira Gandhi International Airport becomes first in Asia-Pacific region to achieve carbon neutral status

The Indira Gandhi International (IGI) Airport has become Asia-Pacific's only and one of the world's few airports to achieve a carbon neutral status. The announcement in this regard was made by the Air-

ports Council International (ACI) during the Airport Carbon Accreditation certificate presentation ceremony to IGI in Montreal, Canada.

Carbon neutrality, or a net zero carbon footprint, occurs when the net carbon emissions over an entire year is zero. This means the airport absorbs or offsets the same amount of emission that was generated. It is used in the context of carbon dioxide releasing processes associated with transportation, energy production, and industrial processes such as production of carbon neutral fuel.

The Airport Carbon Accreditation certificated has upgraded the IGI airport's status to "Level 3+, Neutrality," the highest level for airports across the world. Less than 25 airports in the world and most of them are located in Europe, have earned this carbon neutral status. The IGI airport is managed by private operator Delhi International Airport Ltd (DIAL), a joint venture between the Airports Authority of India (AAI) and GMR Group-led consortium. The airport boasts green buildings, rainwater harvesting system, solar power plants etc., which have helped it reduce and offset its carbon emissions.

India ranks 39th in 2016-17 Global Competitiveness Index

India has been ranked 39th among the 138 countries in the 2016-17 Global Competitiveness Index (GCI). The index was released as part of the World Economic Forum's (WEF) Global Competitiveness Report for 2016-17.

The Global Competitiveness Report's competitiveness ranking is based on the Global Competitiveness Index (GCI), which was introduced by the World Economic Forum in 2004. Defining competitiveness as the set of institutions, policies and factors that determine the level of productivity of a country, GCI scores are calculated by drawing together country-level data covering 12 categories – the pillars of competitiveness – that collectively make up a comprehensive picture of a country's competitiveness.

Switzerland, Singapore and the US remain as the world's most competitive economies. Among the BRICS nations, China is ranked 28th, Russia is ranked 43rd, South Africa is at 47 and Brazil at 81. There were no newcomers to its 2016-2017 top 10, though the order of some of the leading countries shifted in its Global Competitiveness Report. Top 10 countries in ranking are Switzerland, Singapore, United States, Netherlands, Germany, Sweden, United Kingdom, Japan, Hong Kong (SAR), and Finland.

In the 2016-17 edition of GCI, India has jumped 16 places compared to 55th position in 2015-16 GCI. India has emerged as the highest rising economy due to

improvement in goods market efficiency, business sophistication and innovation. India's overall competitiveness has increased due to improvements in institutions and infrastructure along with recent reforms such as opening the economy to foreign investors and increasing transparency in the financial system. Indian economy boasts the highest growth among G20 economies mainly due to improved monetary and fiscal policies, as well as lower oil prices which has stabilized economy. India's competitiveness has improved across the board, particularly in innovation (29), goods market efficiency (60) and business sophistication (35) indicators of GCI. India still needs to remove labour market rigidities and the presence of large, public enterprises especially in the utilities and financial sector make the economy less efficient.

ISRO successfully launches 8 satellites into two different orbits

Indian Space Research Organization (ISRO) on 26 September 2016 successfully launched eight satellites in two different orbits in a single mission. These satellites were launched with the PSLV C35 from the first launch pad of the Satish Dhawan Space Centre, Sriharikota. It was PSLV's longest and most complex mission. It is also for the first time PSLV has successfully placed satellites in two different orbits in a single mission.

It was longest and most complex mission because most countries launch satellites in a single orbit and even if multiple satellites are injected in a sequence in the same orbit. However, in this mission PSLV launched its payloads in two different orbits by following twin-orbit manoeuvre. It was recently accomplished by European Space Agency's Vega rocket. This is a challenging two-in-one mission also puts India in a unique league of nations having the capability to achieve two different orbits in a single mission. This successful mission also has enhanced marketability and versatility of PSLV, ISRO's workhorse and also increased its unique position global satellite launch services market.

Among the eight satellites launched, three satellites were from India, three from Algeria and one each from Canada and United States. SCATSAT-1 satellite of India weighing 371 kg was the primary payload and remaining other seven customer satellites were secondary payloads (5 foreign and 2 domestic satellite) weighing 304 kg in total.

SCATSAT-1 satellite: It is weather satellite that was placed in polar sun synchronous orbit of 730 kilometer height. It will provide weather forecasting services meant for ocean and weather forecasts, cyclone

detection and tracking through wind-vector products. It will have life of five years.

Pratham: It is a 10-kg satellite developed by students from Indian Institute of Technology (IIT), Bombay. It will be used to study the total electron count in space with a resolution of 1km x 1km location grid. PISAT: It is a 5.25-kg satellite. It is developed by a consortium-led by the PES University in Bengaluru. It would explore remote sensing applications.

Three Algerian satellites: Alsat-1B (103 kg), Alsat-2B (110 kg) and Alsat Nano (7 kg). They are meant for earth observation, remote sensing and technology demonstration.

Pathfinder-1: It is US satellite owned by BlackSky. It weighs 44 kg and has a high resolution imaging microsatellite.

NLS-19: It is Canadian satellite developed by University of Toronto. It is a nano-satellite weighing 8 kg. It will be used for experiments for reducing space debris.

Indian Air Force successfully test fires long range air-to-air MICA missile

Indian Air Force (IAF) on 23 September has successfully fired recently acquired long range air-to-air MICA missile from Mirage-2000 Upgrade combat aircraft on a manoeuvring target. During the test, the missile achieved a direct hit on a target which was much smaller than an actual aircraft and flying at a low altitude. With this success IAF has become one of the few air forces in the world that have capability of launching such beyond visual range (BVR) air-to-air missile.

Mirage-2000: It is a single-engine fourth-generation jet fighter manufactured by France's Dassault Aviation. It was designed in the late 1970s as a lightweight fighter based on the Mirage III for the French Air Force. The upgraded Mirage 2000 fighter jets are fitted with the Thales RDY 2 radar, new avionics, helmet-mounted display. They have ability to fire new weapons including BVR MICA, Meteor missiles.

Long range surface-to-air Barak-8 missile successfully test fired

India and Israel jointly developed most advanced long range surface-to-air missile (LR-SAM) Barak-8 was successfully test fired off the Odisha coast on 20 September 2016. The missile was test fired from a mobile launcher at the Integrated Test Range in Chandipur in Balasore district in Odisha.

Barak-8 (Lightning 8 in Hebrew) is long-range nuclear capable ballistic missile, developed jointly by Israel

and India. It has been designed and developed by DRDO, Israel Aerospace Industries and Israel's Administration for the Development of Weapons and Technological Infrastructure. It is 4.5-meter long and weighs around 3 tonnes can carry a payload of 70 kilograms. It has a speed of Mach 2. The system also includes a Multi-Functional Surveillance and Threat Alert Radar (MF STAR) for detection, tracking and guidance of the missile. The missile swung into action after getting a signal from the radars to intercept a moving aerial target supported by an unmanned air vehicle 'Banshee' over the Bay of Bengal.

It has the capacity to identify and neutralize various forms of aerial threats such as rockets, UAVs, planes, helicopters in a single flight. Barak-8 missile's most technologically advanced aspect is its ability to intercept missiles aimed at sea-bound vessels.

India ranks 112th in 2016 World Economic Freedom Index

India has been ranked 112th out of 159 countries in the 2016 World Economic Freedom Index (WEFI). The index was release as part of the 2016 annual report of the Economic Freedom. The report measures the economic freedom by analyzing the policies and institutions of all 159 countries and territories and was based on data from the year 2014.

The economic freedom index of a country is directly proportional to the freedom and opportunities available to its citizens. People living in countries with high levels of economic freedom enjoy greater prosperity, more political and civil liberties and longer lives. On the contrary, countries with lower levels of freedom index tend to suppress its citizens' freedom and rights.

The report was published by the Centre for Civil Society, a public policy think tank along with Canada's Fraser Institute. World Economic Freedom Index measures the degree of economic freedom in countries in five broad areas based on 2014 data. They are (i) Size of government: expenditure, taxes and enterprises (ii) legal structure and security of property rights; (iii) access to sound money; (iv) freedom to trade internationally and (v) regulation of credit, labour, and business.

India has fared badly in all categories i.e. legal system and property rights (86), sound money (130), freedom to trade internationally (144) and regulation (132) except the size of the government (8).

Hong Kong topped the index followed by Singapore and New Zealand at second and third position. The other top 10 countries in the Index are Switzerland, Canada, Georgia, Ireland, Mauritius, the UAE, Australia and the UK. The 10 lowest-ranked countries

are: Iran, Algeria, Chad, Guinea, Angola, Central African Republic, Argentina, Republic of Congo, Libya and lastly Venezuela. Other notable countries are- the United States (16), Germany (30), Japan (40), France (57) and Russia (102).

Indian Railways launches Yatri Mitra Sewa to help elderly, differently-abled

Indian Railways on 19 September 2016 has launched 'Yatri Mitra Sewa' in a move to make rail travel comfortable for elderly, differently-abled and ailing travellers. The 'Yatri Mitra Sewa' will facilitate access to wheelchairs, battery operated cars and porter services elderly, differently-abled and ailing travellers.

'Yatri Mitra' or 'Passenger Friend' can be assistant (Sahayak) or any other person nominated for the purpose. The service will be available at major railway stations across the country. It can be availed at the time of online booking of tickets by calling or messaging 139 or by simply dialling a dedicated mobile phone number to be activated for the purpose. Passengers can also access the Mobile app to avail the service in the future. The App will be developed by the Centre for Railway Information Systems (CRIS). Once the service is booked, the IRCTC will ensure the Yatri Mitra receive the passenger at the entrance of the station and help in boarding the train safely. The assistant will also be available at the coach when the passenger arrives at the designated railway station.

The IRCTC has been mandated to implement the service for 'free of cost' by involving some charitable trust, NGOs, PSUs, etc under the Corporate Social Responsibility (CSR) category. But, if due to lack of response the service cannot be provided free of cost then IRCTC may arrange this service on affordable and reasonable charges.

ISRO's GSLV-F05 launches advanced weather satellite INSAT-3DR

The Indian Space Research Organization (ISRO) has successfully launched advanced weather satellite INSAT-3DR on 8 September 2016. The advanced weather satellite was launched with the Geosynchronous Satellite Launch Vehicle (GSLV-F05), from the Satish Dhawan Space Centre in Sriharikota. So far this year, it was the seventh successful mission of ISRO including the IRNSS series and the scramjet propulsion mission.

INSAT-3DR weighing 2,211-kg will supplement the services of INSAT-3D launched from French Guiana in July 2013. It has designed mission life of ten years. INSAT-3DR was successfully placed Geostationary

Transfer Orbit (GTO). To reach final GTO at 74 degree East longitude, INSAT-3DR had used its own propulsion system.

Payloads in INSAT-3DR are as follows

(i) Multi-Spectral Imager: It would generate images of earth every 26 minutes to provide information on various parameters, sea surface temperature, snow cover, cloud motion winds. (ii) Sounder: It will provide information on temperature and humidity. (iii) Data-Relay Transponder: It will be used for receiving meteorological, hydrological and oceanographic data. (iv) Satellite Aided Search and Rescue Transponder: It will be used to pick up and relay alert signals originating from distress beacons of aviation, maritime, among others.

It will provide service continuity to earlier meteorological missions and further augment the capability to provide various meteorological, search and rescue services.

GSLV-F05 was the tenth flight of India's GSLV. Besides, it was GSLV's fourth flight with the indigenous cryogenic engine CE-7.5, with the first three being developmental flights. Thus, it was the first operational flight of the rocket fitted with the indigenous cryogenic upper stage. It had indigenously developed Cryogenic Upper Stage (CUS) on-board. GSLV is a three stage rocket designed to inject 2 to 2.5 ton class of satellites into GTO. The first stage of rocket is fired by solid fuel and its four strap-on motors by liquid fuel. The second stage is powered by liquid fuel and the third stage by the cryogenic engine which is more efficient as it provides more thrust for every kilogram of propellant burnt.

ISRO is perfecting the crucial cryogenic engine technology in order to save precious foreign exchange by launching heavier satellites on its own. Currently, ISRO relies on the European Space Agency (ESA's) Ariane rocket to launch its heavy communication satellites.

ICICI Bank: First bank to introduce Software Robotics for power banking operations

India's largest private sector bank ICICI Bank has successfully deployed 'Software Robotics' for power banking operations. With this, it becomes first bank in the country and among few globally to deploy 'Software Robotics'. ICICI Bank has deployed Software Robotics to over 200 business processes across various functions. The 200 business processes include retail banking operations, agri-business, trade & foreign exchange, treasury and human resources management among others.

At ICICI Bank, software robots have reduced the response time to customers by up to 60% and in-

creased accuracy to 100% thereby sharply improving the bank's productivity and efficiency. It has also enabled the bank's employees to focus more on value-added and customer-related functions. The software robots now perform over 10 lakh banking transactions every working day. The software robots help to bring operational efficiency, higher accuracy and a massive reduction in processing time for customer services. In banking, software robotics emulates human actions to automate and perform repetitive, high volume and time consuming business tasks cutting across multiple applications. It leverages recent advancements in artificial intelligence such as facial and voice recognition, machine learning, natural language processing, and bots among others. The software robots at ICICI Bank are configured to capture and interpret information from systems, recognize patterns and run business processes across multiple applications. Besides, it can execute activities including data entry and validation, automated formatting, workflow acceleration, multi-format message creation, text mining, reconciliations and currency exchange rate processing among others.

Majuli declared largest river island in world by Guinness World Records

The Guinness World Records on 1 September 2016 has officially designation Assam's Majuli as the largest river island in the world. The island is located in the Brahmaputra River. The river island covering an area of around 880 sqkm has toppled previous record held by Brazil's Marajo island in the Amazon river. The island is accessible by ferries from the city of Jorhat. The fluvial riverine island is formed by the Brahmaputra river system. It is surrounded by Subanisri River in the North, main Brahmaputra River on the South and kherkatia Suli, split channel of Brahmaputra River in northeast. The island has total 144 villages with a population of over 160,000 and a density of 300 individuals per square km. Majuli island is mostly inhabited by Mishing tribal people. Apart from them, there are inhabitants from the Deori and Sonowal Kacharis tribes.

On the island languages spoken are Mising, Assamese, and Deori. Majuli island has a rich and diverse agricultural tradition. As many as 100 varieties of rice grown organically i.e. without pesticides or artificial fertilisers. It is the nerve centre of Assamese neo-Vaishnavite culture initiated by saint-reformer Srimanta Sankardeva in 15th century. The island had some 65 satras (monasteries adhering) to Vaishnavism. But large numbers of them were relocated to the mainland after being washed away. The main surviving satras include Garamurh, Dakhinpat, Kamalabari, Auniati and

Bengenaati. Majuli island is a rich environmental hotspot harbouring. It is home of many rare and endangered avifauna species including migratory birds. Due to erosion of river-bank, the island has lost around one-third of its area in the last 30-40 years caused mainly due to frequent flooding of the river. In June 2016, Assam Government had officially declared the island as the district making it India's first island district. The island has been nominated for the World Heritage Site status. It has been included in the tentative list by UNESCO.

INTERNATIONAL

World's first three-parent baby born in Mexico

The world's first baby was born from a new procedure that combines the DNA of three people in Mexico to a Jordanian couple with the help a controversial new fertility technique that incorporates DNA from three people in the embryo. The 'three-parent' technique also known as Mitochondrial donation (Mitochondrial Replacement Therapy) allows parents with rare genetic mutations to have healthy babies.

The boy's mother was carrying genes for Leigh syndrome, a fatal genetic disorder that affects the brain, muscles and nerves of developing infants. Genes for the genetic disease reside in DNA in the mitochondria (powerhouse of the cell), which provide energy for our cells. In this case spindle nuclear transfer was used to remove the faulty nucleus from one of the mother's eggs and inserted it into a donor egg that had its own nucleus removed. The resulting egg with nuclear DNA from the mother and mitochondrial DNA from a donor – was then fertilised with the father's sperm to create embryos. This embryo was implanted in the mother and the child was born nine months later in April 2016. Researchers have tested the boy's mitochondria and found it contains less than 1% mutation.

MRT or Mitochondrial donation is a special form of in vitro fertilization in which the future baby's mitochondrial DNA comes from a third party. The two most common techniques in mitochondrial donation are **pronuclear transfer** and **maternal spindle transfer**. Due to the uncharted nature of producing a child with 3 sources of DNA, this subject is currently quite contentious in the field of bioethics, as is the case with many other gene therapies. The treatment was legalised in the UK in 2015 but so far no other country has introduced laws to permit the technique. In February 2016, a report was issued by the U.S. Food and Drug administration declaring that further research into mitochondrial donation is ethically permissible.

Jim Yong Kim re-appointed as President of World Bank for second term

Executive Directors of the World Bank on 27 September agreed unanimously to reappoint Jim Yong Kim to a second five-year term as President of the World Bank Group, beginning 1 July 2017. He was the only candidate in a process.

The Board noted that in the first year of Kim's leadership, which began in July 2012, shareholders endorsed two ambitious new goals for the institution. They were: Elimination of extreme poverty by 2030, and Promotion of shared prosperity. These new initiatives boosted the income growth of the bottom 40 percent of the population in every developing country.

Jim Yong Kim is a South Korean-American physician and anthropologist. He is the 12th President of the World Bank and for first time was appointed in 2012. He was a global health leader and was formerly the Chair of Department of Global Health and Social Medicine at Harvard Medical School. The Forbes Magazine had named him in its list of the world's 50th most powerful in 2013.

The World Bank is an international financial institution that provides loans to developing countries for capital programs. It comprises two institutions: the International Bank for Reconstruction and Development (IBRD), and the International Development Association (IDA).

World's largest radio telescope built in China

China has built world's largest radio telescope nicknamed Tianyan (Heavenly Eye" or "The Eye of Heaven) or the five-hundred-metre aperture spherical radio telescope (FAST). It has started its operation and is part of China's drive to become a science powerhouse. It is located in the Dawodang depression, a natural basin in Pingtang County, Guizhou Province, southwest China.

It consists of a fixed 500 m dish constructed in a natural depression in the landscape. It is the world's largest filled aperture (single dish) radio telescope. Its surface is made of 4450 triangular panels, 11 m on a side, in the form of a geodesic dome. It is the second largest radio telescope after the Russian RATAN-600. The final cost of the project is 180 million US dollars. Construction on the FAST project began in 2011 and was completed in July 2016.

With its opening, the intensive testing phase of the telescope will begin. It will take nearly three years to calibrate the instruments of telescope to become fully operational. The facility is part of China's drive to become a science powerhouse. It is an ambitious project of the National Astronomical Observatories

of China.

It will be used to search for signs of intelligent life and to observe distant pulsars – tiny, rapidly spinning neutron stars believed to be the products of supernova explosions. It will be also used to study stellar radio emissions, gravitational waves and potentially signals from extraterrestrial civilizations. China's best supercomputers the SkyEye-1 will be used to process the massive amounts of data supplied by FAST.

World's first daily driverless bus service launched in Lyon, France

The world's first daily driverless bus service has started in Lyon, France which will run in the city's Confluence area. The driverless bus service includes two electric buses that will transport passengers on a ten-minute route hosting five stops in the city centre at an average speed of 10 Kilometres per hour. The bus is designed by French company **Navya**.

The driverless buses can hold up to 15 passengers and are electric buses. It has features like LIDAR radar technology and motion sensors will help to avoid accidents. The LIDAR radar technology allows these buses to know exactly where they are and to detect everything happening around them. Using this technology these buses manage their movement intelligently to avoid collisions.

LIDAR is acronym of Light Detection And Ranging. Originally it was created as a portmanteau of "light" and "radar". It is a surveying technology that measures distance by illuminating a target with a laser light. It is sometimes simply referred to as 3D scanning or laser scanning with terrestrial, airborne and mobile applications. It is popularly used to make high-resolution maps, with applications in geodesy, geomatics, archaeology, geography, geology, geomorphology, forestry, atmospheric physics etc.

China successfully launches Tiangong-2 space lab

China has successfully launched Tiangong-2 space lab to develop expertise for a future space station and conduct science experiments. The space lab was launched on board of Long March-2F T2 rocket from the Jiuquan Satellite Launch Center in northwestern China's Gobi desert. After a flight of 580 seconds, it entered its designated orbit 380 kilometres above Earth. Subsequently, the space lab would be transferred to a slightly higher orbit, around 393 kilometres above Earth - the height of the future Chinese space station. Once this is achieved, the Shenzhou-11 manned spaceship would ferry two astronauts into space to dock with the lab in mid-to-late October. The two astronauts will work in Tiangong-2 for 30 days before re-entering Earth's atmosphere.

Tiangong-2 (in English means Heavenly Palace 2) space lab is part of China's ambitious Project 921-2 space station program aimed at creating a third generation space station. The 8-tonne module replaces China's now-defunct Tiangong 1 space lab mission which had ended its operational life in March 2016. Tiangong-2 features improved living quarters and life-support infrastructure for longer stays by visiting crewmembers. It will be used for testing systems and processes for mid-term space stays and refueling.

BUSINESS

Reliance Communications and Aircel to be merged to create 4th largest telco

Anil Ambani led Reliance Communications (RCom) on 14 September 2016 has signed a deal with Maxis Communications Berhad (MCB) for merger of wireless businesses of Aircel Limited with itself. The merger is considered as the largest-ever consolidation in the Indian telecom sector.

The merged entity will be country's fourth-largest phone company in terms of customers and revenue. The merged company will have second-largest spectrum holding amongst all operators in the country aggregating 448 MHz across the 850, 900, 1800 and 2100 MHz bands. It will be one of India's largest private sector companies, with an asset base of over \$9.7 billion (Rs. 65,000 crore) and net worth of \$5.2 billion (Rs. 35,000 crore). RCom and MCB will hold a 50% stake each in the merged entity, with equal representation on the Board of Directors and all Committees. After completion of the merger in 2017, RCom's overall debt will reduce by 20000 crore rupees or over 40 per cent of its debt. Aircel's debt will reduce by 4000 crore rupees. The Company will be managed by an independent professional team under the supervision of the Board.

India ranks 35th in World Bank's 2016 Logistics Performance Index

India has been placed at the 35th rank in the World Bank's 2016 Logistics Performance Index (LPI) among 160 countries. The index was recently released by World Bank in its report titled 'Connecting to Complete 2016'. India's position on the global list has improved by 19 places compared to the previous list in 2014.

LPI is released by World Bank as part of its report every two years based on a world-wide survey of stakeholders. It is based on the ground providing feedback on the logistics friendliness of the countries in which they operate and those with which they trade. The index measures countries across six components—

Customs, infrastructure, international shipments, logistics quality and competence, tracking and tracing, and timeliness. It is an interactive benchmarking tool that helps countries to identify challenges and opportunities in trade logistics and also to improve their performance.

In terms of 'Customs', India ranked 38, Infrastructure 36, International Shipments 39, Logistics Quality and Competence 32, Tracking and Tracing 33, and Timeliness 42.

AWARDS

Telugu writer Kalakaluri Enoch conferred with Moortidevi Award of Bharatiya Jnanpith

Noted Dalit voice, poet and Telugu writer Prof. Kalakaluri Enoch on 29 September was conferred with the prestigious Moortidevi Award of Bharatiya Jnanpith for the year 2015. The prestigious literary award was bestowed upon him for his novel Anantajivanam by Veteran art historian Dr Kapila Vatsyayana function in New Delhi. The award was given for his novel Ananta Jeevanam. The novel was thought-provoking and contemplative as it depicted the struggle of the weak, the downtrodden and the common man of Rayalaseema. This is the first time a Telugu writer was selected for the award.

Dr Enoch was born on July 1, 1939 in Guntur district of Andhra Pradesh. He is a former vice-chancellor of SV University. He has been awarded the Padma Shri, fourth highest civilian award of the country for his contributions to the field of literature. He has credited over 180 poems, 180 stories, 9 novels and 30 plays.

The Moortidevi Award is an annual literary award in India. It is presented by the Bharatiya Jnanpith organization for a work which emphasizes Indian philosophy and culture. The award carries a shawl, Saraswati Statue, Citation and a cheque of four lakh rupees.

Ajinkya Rahane, Rohit Sharma conferred with Arjuna Award

Cricketers Ajinkya Rahane and Rohit Sharma were conferred with the Arjuna Award for their contributions to sport of cricket. The award was bestowed upon them by Union Sports Minister Vijay Goel in New Delhi. Sharma was bestowed with the award for the year 2015 and Rahane for the year 2016. Earlier, the two cricketers could not receive the awards from the President Pranab Mukherjee as they were participating in international tournaments.

The Arjuna Awards, instituted in 1961, are given to sportspersons for consistently outstanding perfor-

mance for four years preceding the year of award and who have also shown qualities of leadership, sportsmanship and a sense of discipline. It is given by Union Ministry of Youth Affairs and Sports. The award carries bronze statuette of Arjuna, a scroll and a monetary award of 5 lakh rupees.

Haryana wins Best Horticulture State award 2016

Haryana has won 'Best Horticulture State' award of the Indian Council of Food and Agriculture (ICFA). The award was bestowed upon the state for its concerted efforts made to increase the income of the farmers in horticulture. The award was received by Haryana Agriculture Minister OP Dhankar on 9 September 2016 at two-day 9th Agricultural Leadership Summit 2016 that organized by ICFA in New Delhi. At present, about 2.5 lakh hectares of land is under horticulture in Haryana. The state government has ambitious target to increase it up to 9 lakh hectares. For this purpose, state government has decided to set a Horticulture University in the state. Besides, it will also create 340 horticulture villages in the state and centres of excellence in horticulture in every district. In addition, state government will also set up biggest Horticulture Mandi of the country at Ganaur on the pattern of Shenzhen Mandi of China and Rungis Mandi of France. State Government will also develop Peri Urban Culture to cater to the needs of the people related to fresh fruits, vegetables, dairy products and flowers.

Besides, the **2016 best agriculture state award** went to Odisha. It was awarded with the award in recognition of the efforts towards development of agriculture and bringing rural prosperity.

Novel on Apatani tribe of Arunachal Pradesh wins MM Bennetts Award

Novel, **Into the Hidden Valley** authored by Stuart Blackburn on 4 September 2016 won the 2016 MM Bennetts Award for Historical Fiction in the United Kingdom. He was presented with this award at the HNS Conference in Oxford.

The book published by Speaking Tiger narrates the story of the **Apatani tribe of Arunachal Pradesh** during British India. It also looks into a little-known episode in the colonial history of British India. It dramatises the encounter by telling two stories, one of a British official and the other of a tribesman. Into the Hidden Valley explores and portrays the impacts of the forces of colonialism on both sides when this settled civilisation forcibly collides with British Empire. Author Stuart Blackburn was born in Providence, Rhode Island. He had completed his doctorate (PhD) in Tamil language and international folklore from the

University of California, Berkeley, in 1980. He has authored or edited 16 books on Indian culture and folklore, mainly in south India and northeast India. His first novel *Murder in Melur* was set in south India. One of his book based on study of shadow puppet theatre in Kerala had won the runner-up prize for the UK Folklore Book of the Year.

MM Bennetts Award for Historical Fiction is prestigious literary award has been named in memory of writer-historian MM Bennetts. MM Bennetts was a specialist in early 19th century British history and Napoleonic wars. Before turning to writing novels full-time, Bennetts was a French translator and a longstanding book critic for the Pulitzer-prize winning newspaper, 'The Christian Science Monitor'.

Indian film Thithi wins best film award at BRICS Film Festival

Indian film *Thithi* on 6 September 2016 has won the best film award at the first BRICS Film Festival concluded in New Delhi. The film festival had opened in New Delhi on 2nd September 2016. The BRICS Film Festival was organized as a part of the special events planned in run-up to the BRICS summit to be held in India. The five-day-long festival screened movies from India, Brazil, Russia, China and South Africa. *Thithi* is a 2016 Kannada-language drama film co-written and directed by Raam Reddy. The movie consists of a cast of non-professional actors from villages in the Mandya district of Karnataka. It is about how three generations of sons react to the death of the oldest man in their clan, named Century Gowda who is a locally renowned, highly cantankerous 101-year-old man. At the 63rd National Film Awards, the film won the **National Film Award for Best Feature Film in Kannada**.

Kiran M Shaw appointed Knight of Legion of Honor by France

Kiran Mazumdar Shaw, Chairperson and Managing Director of Biocon Limited has been appointed Knight of the National Order of the French Legion of Honour (Chevalier de l'Ordre National de la Légion d'Honneur). Chevalier l'Ordre National de la Légion d'Honneur is the highest civilian award of the French Government for outstanding contribution in diverse fields. Shaw was bestowed with this prestigious award for her contribution and dedication to biosciences and research field globally. She will be presented with this award on behalf of the French President later in 2016. Kiran Mazumdar Shaw is Indian entrepreneur and current chairperson of IIM-Bangalore. She is Chairman and MD of Biocon Limited, a biotechnology

company based in Bengaluru.

In 2014, she was awarded the Othmer Gold Medal, for outstanding contributions to the progress of science and chemistry. She is on the *Financial Times*' top 50 women in business list. As of 2015, she was listed as the 85th most powerful woman in the world by *Forbes*. At present in 2016, she has been listed one more time in "Forbes" - the most powerful woman in the world at 77th position.

Bezwada Wilson, TM Krishna receive 2016 Magsaysay Award

Two Indians - Carnatic singer T.M. Krishna and campaigner for eradication of manual scavenging Bezwada Wilson have received the prestigious Ramon Magsaysay prize for the year 2016. They were among six persons/organisations who received the prestigious award, often regarded as Asia's Nobel Prize. The award ceremony was held at the Cultural Center of the Philippines in Pasay City, Manila on August 31, 2015 i.e. on the birth anniversary of former Filipino President Ramon Magsaysay.

Bezwada Wilson (50), the national convenor of the Safai Karmachari Andolan (SKA), got the award for "asserting the inalienable right to a life of human dignity" while 40-year-old Krishna won it under the 'Emergent Leadership' category for bringing "social inclusiveness in culture."

Four others who received the award are: Conchita Carpio-Morales of the Philippines, Dompot Dhuafa of Indonesia, Japan Overseas Cooperation Volunteers and 'Vientiane Rescue' of Laos.

Magsaysay Award is Asia's highest civilian honour and is often regarded as the region's equivalent of the Nobel Prize. Established in 1957 in the memory of Philippines' third President Ramon Magsaysay who had died in air disaster in March 1957. It was established the New York City based Rockefeller Brothers Fund and Philippine government. It is awarded annually to individuals or organizations from Asia region for their altruistic and philanthropic service. The award carries a medallion bearing the likeness of the late President Ramon Magsaysay, cash prize and a certificate.

Subramanian Swamy awarded Tamil Ratna award

Senior BJP leader and Rajya Sabha MP Subramanian Swamy on 11 September 2016 has been honoured with Tamil Ratna award by America Tamil Sangam (ATS) in New York. The America Tamil Sangam is a body of Tamil diaspora based in US. He was bestowed with this award for fighting corruption and working for more transparency in the functioning of the government.

Swamy Subramanian Swamy is politician and economist who is presently serving as a member of the Rajya Sabha, the upper house of the Indian Parliament. As an economist, he had served as a member of the erstwhile Planning Commission. He was a Cabinet Minister in the Chandra Shekhar government from 1990 to 1991. In 1978, he had served member of the Group of Eminent persons which had prepared a report of UN Conference on Trade and Development (UNCTAD) on Economic Co-operation between Developing countries (ECDC). In 1994, former Prime Minister P. V. Narasimha Rao had appointed him as Chairman of the Commission on Labour Standards and International Trade. He was the President and founder of the Janata Party until it was merged on with Bharatiya Janata Party (BJP). He has written on foreign affairs of India dealing largely with People's Republic of China (PRC), Pakistan and Israel.

SPORTS

Indian women's kabaddi team wins gold medal in Asian Beach Games

Indian women's Kabaddi team on 28 September 2016 bagged gold medal at the 5th Asian Beach Games. In the summit clash played at Bien Dong Park in Danang, Vietnam, the team defeated Thailand 41-31. With this, Indian women's kabaddi team has won the title for the record fifth time in succession. For Thailand, it was the fifth time in a row they had lost to India in a final. The Indian women's kabaddi team won the gold medal since the inception of the biennial Games in 2008. Earlier in women's 70kg category kurash (a form of wrestling originated in Uzbekistan), Amisha Tokas had won a silver after losing to Nguyen Thi Lan of Vietnam in the final. In beach bodybuilding, India's Manoj Kumar Majumdar also had won a bronze medal in upto 158cm category.

India wins historic 500th Test against New Zealand

India on 26 September 2016 defeated New Zealand by 197-run to win its historic 500th cricket test match in Kanpur. On the fifth and final day of the match at Green Park, India bowled out the visitors for 236 in their second innings, shortly after Lunch, after setting them an improbable target of 434.

The victory, which is India's 88th on home turf, gave them a 1-0 lead in the three-Test series. With this win, India has taken their unbeaten tally on home soil to 11 matches. On the other hand, New Zealand remained without a win on the Indian soil since 1998. Senior off-spinner Ravichandran Ashwin had taken 6 wickets in the innings, completed his fifth six-wicket haul in his career. Ravinder Jadeja was declared Man

of the Match for his fine all-round performance. He had taken six wickets and scored 92 runs in the match. India is the 4th country to play 500 Tests in a format which has 10 participants. Others are England (played 976 test matches), Australia (791) and West Indies (517). The first ever Test match was played by India in England on June 25, 1932 under Douglas Jardine. CK Nayudu was the captain of the Indian team.

Sathiyam Gnanasekaran wins Belgium Open title of Table Tennis

Sathiyam Gnanasekaran on 24 September 2016 won the men's singles title of the Belgium Open. This was his first his first pro title. In the final match played at De Haan in Belgium, he defeated local player Nuytinck Cedric 4-0 score in the final with 15-13, 11-6, 11-2, 17-15. In the quarterfinals match of the event he had defeated Steffen Mengel (world number 75).

With this, Gnanasekaran became the second Indian table tennis player to win an ITTF event. Achanta Sharath Kamal is the first Indian to win an ITTF event in 2012.

Sathiyam Gnanasekaran is an Indian table tennis player. He is ranked 160 in the world as of February 2016. He was a member of the Indian team that took the bronze in the 2011 Junior World Championships. He hails from Chennai, Tamil Nadu.

Deepa Malik first Indian woman to win Paralympics medal

Indian athlete Deepa Malik on 12 September 2016 has created history by winning silver medal in Women's shotput at the 2016 Rio Paralympics. With this she becomes first Indian woman to win a medal at the Paralympics. Malik had won the silver medal in the shotput F-53 event with her best throw of 4.61m in her six attempts. In the shotput F-53 event, Bahrain's Fatema Nedham had won the gold medal with the best throw of 4.76m. Greece's Dimitra Korokida had won the bronze medal with a throw of 4.28m.

Deepa Malik was born in Sonapat, Haryana. She is associated with Himalayan Motorsports Association (H.M.A.) and Federation of Motor Sports Clubs of India (F.M.S.C.I.). She has completed 8 day, 1700-km drive in sub-zero temperatures which included a climb to 18000 feet covering many difficult paths including remote Himalayas, Leh, Shimla and Jammu. She is currently being supported by the GoSports Foundation through their Para Champions Programme. She is a member of the working group in the formulation 12th five-year plan (2012-2017) on Sports and Physical Education. She was nominated on behalf of the Union Sports Ministry by the Planning Commission HRD Division.

Devendra Jhajharia wins gold medal in javelin throw at 2016 Rio Paralympics

India's Devendra Jhajharia (36) on 13 September 2016 has won gold medal in the men's javelin throw, F46 event held at the 2016 Rio Paralympics. With this, he becomes only the second gold medallist at the Paralympics for the country. He won the gold medal with world-record throw of 63.97 metres. World No. 1 Chunliang Guo from China won the silver medal in the event. Sri Lanka's Herath Priyantha grabbed the bronze.

He had also secured the gold medal in the javelin event at the 2004 Athens Paralympics with record throw of 62.15 metres. With this, he also became first Indian Paralympian to win two gold medals at the Paralympics.

Devendra Jhajharia's left hand amputated after he had met with accident in his childhood. He was awarded the Arjuna award in 2004 and the Padma Shri in 2012, becoming the first Paralympian to receive the honour. He last participated in the Paralympics 12 years ago i.e. in 2004, however the F46 event did not feature in the 2008 and the 2012 editions of Paralympics. He is currently being supported by the GoSports Foundation through the Para Champions Programme.

Mariyappan Thangavelu wins India's first Gold medal at 2016 Rio Paralympic Games

Mariyappan Thangavelu has won India's first gold medal at the 2016 Rio Paralympics. He won the gold in the Men's High Jump T-42 event with a leap of 1.89 metres. With this, Thangavelu also became the first Indian high-jumper to win gold at the Paralympics. This was India's overall third gold at the Games and the first after 12 years.

In addition, India's Varun Singh Bhati won the bronze medal in same event with the jump of 1.86 metres to finish third. Sam Grewe of United States won the silver medal. India had won its first ever Paralympics Gold medal in the 1972 Heidelberg Games. It was won by Swimmer Murlikant Petkar. Besides, India had claimed Gold and Bronze medals at 2004 Athens Paralympics. The Gold medal was won by Javelin thrower Devendra Jhajharia and the Bronze medal was won by Rajinder Singh in powerlifting event. In the last edition of Paralympics held in London in 2012, India had won just a silver medal.

N Sikki Reddy, Pranaav Chopra wins Brazil Open Grand Prix mixed doubles title

Indian pair of Pranaav Jerry Chopra and N Sikki Reddy on 5 September 2016 have won the 2016 Brazil Open Grand Prix title of Badminton in the mixed doubles

category. It was their maiden Grand Prix title and they wrapped up the final in only 37 minutes. In the semi-final, they beat Fabian Holzer and Barbara Bellenberg of Germany 21-18, 21-15. In the final match, Indian pair (World no. 65) defeated Canadian pair of Toby Ng and Rachel Honderich by 21-15, 21-16 score held at Costa Cavalcante.

The 23-year-old Sikky won as many as five international challenger titles in 2015, which includes two mixed doubles and three women's doubles crowns. She was also a part of the bronze medal winning Indian team at the 2014 and 2016 Uber Cup. So far, she played mixed doubles with six different partners, including V Diju, Alwin Francis, Tarun Kona, Manu Attri and K Nandagopal.

Pranaav was part of the Indian team that stunned mighty China 3-2 to win a bronze in the Asia Badminton Team Championships.

PERSON-IN-NEWS

Navtej Sarna appointed Ambassador to the US

The Union Government has appointed Navtej Sarna (59) as Ambassador to the United States. Sarna succeeds Arun Singh, who is due for retirement. In his new role he will face the task of engaging with the new administration in United States following the November 2016 Presidential poll.

He is an Indian Foreign Service (IFS) officer of the 1980 batch. In his career spanning 35 years, he has handled several important assignments at the MEA. Prior to this appointment he was serving as India's High Commissioner to the United Kingdom. He was appointed to India's High Commissioner to UK in January 2016. Prior to it, he was serving as Secretary (West) in the Union Ministry of External Affairs (MEA). He was among the longest-serving spokespersons of the MEA from 2002 to 2008. He also has authored many fiction and non-fiction books and the most recent being 'Second Thoughts: On Books, Authors and the Writerly Life' released in 2016. He was also India's ambassador to Israel from 2008 to 2012.

Anandi Ramalingam assumed charge as BHL's first woman director

Anandi Ramalingam on 16 September 2016 has assumed charge as Director Marketing of the Public sector Bharat Electronics Ltd (BEL). It is the first time that a woman has been appointed as the Director of the company. Prior to this appointment, Ramalingam served as the General Manager heading the Military Communication Strategic Business Unit (SBU) at BEL's Bangalore Complex.

Anandi Ramalingam had joined BEL in March 1985 after completing her BE in Electronics and Communication engineering (ECE) from the PSG College of Technology, Coimbatore. In the last 20 years, she had gained rich experience in equipment testing working across various domains of military communication including heading testing for Shakti. Shakti is the flagship Artillery Combat Command and Control System, developed by BEL and DRDO for the AREN (Army Radio Engineered Network) and Indian Army. Bharat Electronics Limited (BEL) is state-owned aerospace and defence company with about nine factories and few regional offices across India. It is owned by the Central Government. It primarily manufactures advanced electronic products for the Indian Armed Forces. BEL is one of nine PSUs under the Union Ministry of Defence of India. It has been accorded Navratna status by the Government of India.

Alka Sirohi appointed as UPSC chairman

President Pranab Mukherjee on 17 September 2016 has appointed former IAS officer Alka Sirohi as chairman of Union Public Service Commission (UPSC) as per Article 316 of Constitution. Sirohi's appointment will be effective from 21 September 2016. She will replace Deepak Gupta who demits office on 20th September 2016. She will be in office till completion of her term as member on January 3, 2017. She is a retired IAS officer of Madhya Pradesh cadre. Prior to this appointment she was member of the UPSC. Before joining the UPSC as a member in January 2012, she was Secretary, Department of Personnel and Training (DoPT).

UPSC is constitutional body which conducts the prestigious civil services examination to select IAS, IFS and IPS officers among others. It has been established under Article 315 of the Constitution and consists of a Chairman and ten Members; appointed and removed by President. The chairman and members of the Commission hold office for a term of six years or until they attain the age of 65 years, whichever is earlier. It conducts the prestigious civil services examination to select officers of Indian Administrative Service (IAS), Indian Foreign Service (IFS) and Indian Police Service (IPS) among others. The examination is one of the toughest examinations in India with success rate of 0.1%–0.3%.

Mother Teresa canonised as Saint

Mother Teresa, a Roman Catholic religious sister and missionary was proclaimed a Saint by Pope Francis in a ceremony at the Vatican. She was canonised at the ceremony held in St Peter's Square in Vatican. Indian delegation was represented by Union External Affairs Minister Sushma Swaraj. With this, Mother Teresa became the fourth Indian to be made saint. Those who received the honour before her include Father Kuriakose Elias Chavara, Sister Euphrasia and Sister Alphonsa. Saint Gonsalo Garcia, though of Portuguese parentage, was born in India, and is considered an India born saint.

Mother Teresa was born as Anjezë Gonxhe Bojaxhiu on 26 August 1910 in Skopje (Now in Macedonia) then part of the Kosovo Vilayet in the Ottoman Empire. After having lived in Macedonia for eighteen years, she moved to Ireland and then to India, where she lived for most of her life. She was the founder of Kolkata based Missionaries of Charity that helps poor on the streets of Kolkata. The Missionaries of Charity run homes for people dying of HIV/AIDS, leprosy and tuberculosis, soup kitchens, dispensaries and mobile clinics, children's and family counselling programmes, orphanages and schools. She had died at the age of 87 in 1997 in Kolkata.

She was honoured with Padma Shri (1962), Ramon Magsaysay Award (1962), Nobel Peace Prize (1979), Bharat Ratna (1980).