

## EVERYDAY CURRENT AFFAIRS – NOV 14, 2019

### TAMIL NADU

- ◆ Chief minister Edappadi K Palaniswami – inaugurated the city's first Pedestrian plaza by ringing a bell at the junction of Thyagaraya Road and Bashyam Road on Pondy bazaar in T.Nagar on November 13



- ✓ The 1.4 km pedestrian stretch was kept spotlessly 'clean' dotted with entertainment artists, rappers, joy rides, battery operated vehicles catering to shop owners and their families, evening walkers, shoppers and residents of the locality
- ✓ Traffic will be made oneway along the pedestrian plaza as part of the trial run.
- ✓ The pedestrian pavement will become a major attraction for children and senior citizens, with facilities and plans for organising music, dance, commerce, art and culture events.

## Boulevard beckons

The city's first pedestrian plaza has been inaugurated. Some of its key features:

- Wide pavements of 10 m to facilitate movement of pedestrians, shoppers; the width was actually reduced from the original plan

**Children's' play area:** a total of 20 locations will get a play area; work on seven of them has been completed

**Vibrant seating:** clusters of benches under trees will serve as resting spaces for people; 126 seats and planters placed already; 250 additional seats and planters planned

**Inclusive design:** With continuous pedestrian walkways, ample seating, abundant tree cover and play equipment, the plaza will be easily accessible for

women, children and senior citizens

**Lighting:** pedestrian lights at a height of 4 m and streetlights at 6 m have been installed to remove 'black spots'. Trees have been decked up with ambient lighting. Sixty new trees have been planted

**Parking space:** space for 500 cars has been earmarked along

13 streets in the vicinity. A multi-level parking lot on Thanikachalam Road will be completed in three months

- Provision has also been made underground for utilities, so that frequent digging up of the road can be avoided; rider sewer lines have been installed wherever necessary to support the existing main line; Metrowater pipes have been added, along with ducts, for electrical and telecommunication cables; a stormwater drain trench has been built to ensure that water flows into the nearest collection point

- **Bicycle sharing facilities have been provided at**

bus stops on Thyagaraya Road to help with last-mile connectivity to the Metro

**Operation and maintenance:** to make the plaza a lively place, there are plans to conduct regular events, similar to Times Square in New York City. This will serve as a crowd-puller and a means of livelihood for performers



**Pedestrians first:** The wide pavements provide ample space for shoppers to walk without worrying about traffic. • R. RAGU

## WHAT A STUDY FOUND

**4,958** people walk down the stretch per hour during peak periods



## GIVE AND TAKE

- Chennai Corporation announced three pedestrian plaza projects in Chepauk, Mylapore and T. Nagar in 2012. The three plazas had themes of education, culture and commerce

- The two projects in Chepauk and Mylapore were shelved in 2013 owing to opposition from traders, residents

- During a trial in T. Nagar on November 20, 2016, traders opposed the project. After a meeting with Corporation officials, they backed the project, leading to the dropping of many aspects. As a result, only 70% of the original proposals have been implemented

- ✓ In the next phase, pedestrian plazas are planned to come up in Anna Nagar, Thiruvanmiyur, Velachery and George Town

## ◆ Southern Railway - will become the first zonal railway to provide its women staff with pepper spray

- ✓ Salem division has issued a circular to this effect in order to make the workplace safer for women
- ✓ Pepper spray will be given to women officials working in remote locations like wayside stations and level crossings for the self-defence of women staff members
- ✓ The spray would be bought from funds allotted to each station, and their numbers would depend on the strength of women staff in every station

◆ **The government - redrew revenue boundaries of 4 districts and created districts of Tenkasi, Tirupathur, Ranipet, Chengalpet and Kallakurichi on November 12**

<b>REDRAWN BOUNDARIES</b>	
<b>Kancheepuram</b>   Taluks of Kancheepuram, Uthiramerur, Sriperumbudur, Walajabad and Kundrathur (new)	<b>Vellore</b>   Taluks of Vellore, Anaicut, Katpadi, Gudiyatham, Peranambut, K V Kuppam (new)
<b>Chengalpattu</b>   Taluks of Cheyyur, Chengalpattu, Maduranthagam, Thirukalukundram, Thiruporur, Tambaram, Pallavaram and Vandalur (new)	<b>Tirupathur</b>   Taluks of Tirupathur, Vaniyambadi, Natrampalli and Ambur
<b>Tirunelveli</b>   Taluks of Tirunelveli, Palayamkottai, Manur, Nanguneri, Ambasamudram, Radhapuram, Cheranmahadevi and Thisayanvilai	<b>Ranipet</b>   Taluks of Walajabad, Arcot, Nemili and Arakonam
<b>Tenkasi</b>   Taluks of Tenkasi, Shencottai, Kadayanallur, Sivagiri, Sankarankovil, Thiruvengadam, Veerakeralampudur, Alangulam	<b>Villupuram</b>   Taluks of Villupuram, Vikravandi, Vanur, Ginjee, Melmalaiyanur, Thiruvannainallur (new), Tindivanam, Marakkanam and Kandachipuram
	<b>Kallakurichi</b>   Taluks of Kallakurichi, Sankarapuram, Chinnasalem, Tirukoilur, Ulundurpet, Kalvarayan hills (new)

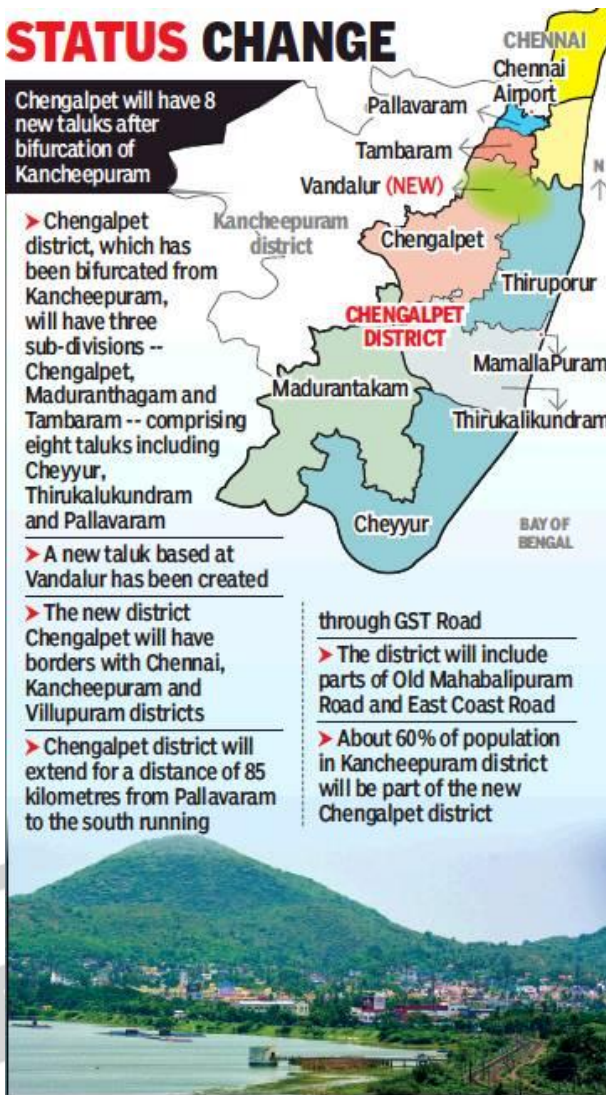
- ✓ In the process, the erstwhile Tirunelveli, Vellore, Kancheepuram and Villupuram districts were either bifurcated or trifurcated.
- ✓ The process led to creation of new taluks of K V Kuppam, Kundrathur, Vandalur, Thiruvannainallur and Kalvarayan hills and five new revenue divisions
- ✓ Vellore district has been trifurcated to form Tirupattur and Ranipet districts under the Tamil Nadu District Limits Act, 1865.
- ✓ Tirunelveli has been bifurcated to form the new Tenkasi district.
- ✓ Two revenue divisions of Vellore and Gudiyatham, and six revenue taluks will constitute Vellore district.
- ✓ Tirupattur district will have two revenue divisions and four revenue taluks.
- ✓ Ranipet district will have two revenue divisions and four revenue taluks.
- ✓ Kancheepuram district will have two revenue divisions
- ✓ Chengalpattu will have three revenue divisions and eight revenue taluks.
- ✓ Chengalpet was a district headquarters for 180 years before it came under Kancheepuram in 1968
- ✓ About 60% of undivided Kancheepuram will be part of Chengalpet.
- ✓ Chengalpet will have three sub-divisions — Chengalpet, Maduranthakam and Tambaram — comprising eight taluks including Cheyyur, Thirukalukundram, Pallavaram and Thiruporur.
- ✓ A new taluk based at Vandalur has also been created.

## STATUS CHANGE

Chengalpet will have 8 new taluks after bifurcation of Kancheepuram

- > Chengalpet district, which has been bifurcated from Kancheepuram, will have three sub-divisions -- Chengalpet, Maduranthagam and Tambaram -- comprising eight taluks including Cheyyur, Thirukalukundram and Pallavaram
- > A new taluk based at Vandalur has been created
- > The new district Chengalpet will have borders with Chennai, Kancheepuram and Villupuram districts
- > Chengalpet district will extend for a distance of 85 kilometres from Pallavaram to the south running

- through GST Road
- > The district will include parts of Old Mahabalipuram Road and East Coast Road
- > About 60% of population in Kancheepuram district will be part of the new Chengalpet district



- ✓ Chengalpet was one of the first districts constituted during the British regime, in 1788
- ✓ This will be the first time the Chengalpet collectorate will actually be in the district.

## STATES

- ◆ **The Andhra Pradesh Cabinet - decided to impose a fine of ₹ 2 lakh on those indulging in illegal storage, sale/resale and transportation of sand and make them liable for imprisonment for up to two years.**
  - ✓ The move is aimed at checking illegal sand mining, which is said to be the main reason for scarcity of sand in the state.
  - ✓ The Cabinet has also decided to organise 'sand week' from November 15 to make at least two lakh tonnes of Sand available every day to revive the construction sector in the state.



- ✓ The Cabinet has also unanimously approved the introduction of English medium from Classes 1 to 6 in government schools with Telugu/Urdu as a compulsory subject from the next academic year.

## NATIONAL

- ◆ **The Bangalore International Airport Pvt Ltd (BIAL) - has proposed to develop a technology where Indian passport holders flying back to the country can use their biometrics like an iris scan or thumb/palm print to register their arrival instead of waiting for hours in immigration queues**

- ✓ The proposal has been sent to the home ministry's Bureau of Immigration
- ✓ If accepted and extended to other airports, the wait time for foreign citizens would be reduced as well with the queues shortened.

## SUPREME COURT VERDICT

- ◆ **The Supreme Court - declared offices of the Chief Justice of India (CJI) and Chief Justices of high courts as 'public authority' which were liable to provide information to queries under the Right to Information Act, 2005**

### 'PUBLIC INTEREST TO GUIDE DISCLOSURE'

- |  |   |
|--|---|
| <ul style="list-style-type: none"> <li>➤ SC says offices of CJI and CJs of high courts, as 'public authority', open to queries under the RTI Act</li> <li>➤ Enables citizens to seek info on working of CJ's office, including elevation, appointment, transfer of judges</li> </ul> | <ul style="list-style-type: none"> <li>➤ RTI queries seeking information will have to clear the cardinal test of public interest, court says</li> <li>➤ Upholds 2010 verdict of Delhi HC that directed SC to furnish information on judges who declared their assets</li> </ul> |
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“
Judicial independence and accountability go hand in hand...
- SC bench

- ✓ A bench of CJI Ranjan Gogoi and Justices N V Ramana, D Y Chandrachud, Deepak Gupta and Sanjiv Khanna said the apex court would necessarily include office of the CJI and judges in accordance with the Article 124 of the Constitution.
- ✓ The decision of the bench was penned by a 3:2 majority, as Justice Ramana and Justice Chandrachud have given separate judgments.
- ✓ The verdict seeks to balance contrasting considerations of accountability and transparency with independence of judiciary and privacy of its members
- ✓ Earlier, the Constitutional Bench of five judges reserved the judgment on April 4 on the appeals filed by the central public information officers against the orders of the Delhi High Court and the Central Information Commission (CIC) in 2010.
- ✓ The Delhi High Court had said in a judgment on 10 January 2010 that the office of the Chief Justice comes under the purview of the RTI Act.
- ✓ Right to Information (RTI) Act, 2005 provides timely response to the citizens on their requests for government related information.
- ✓ The major aim of the RTI Act is to promote transparency, empower the citizens and accountability in the working condition of the Government.

## **CONFERENCES & SUMMITS**

- ◆ **The BRICS summit – was held in Brasilia, Brasil on November 13 and 14**



- ✓ The PM Narendra Modi, who is in Brazil for the 11th BRICS Summit, met Putin on the sidelines of the summit and reviewed the full range of India-Russia relations
- ✓ Russian President Vladimir Putin invited PM Modi for the Victory Day celebrations in May next year on the side lines of the summit
- ✓ The BRICS summit 2019 theme is 'Economic Growth for an Innovative Future'.
- ✓ The PM also met Brazilian President Jair Bolsonaro and discussed about strengthening bilateral ties.
- ✓ During the meeting, the PM has invited Mr. Bolsonaro as the chief guest at the Republic Day parade in January 2020, which has been accepted by the Brazil's President

- ✓ President Vladimir Putin of Russia, Prime Minister Narendra Modi of India, President Xi Jinping of China and President Cyril Ramaphosa of South Africa participated in the Summit along with Brazil President Jair Bolsonaro
- ✓ BRICS is a group of five emerging economies in the world which includes Brazil, Russia, India, China and South Africa
- ✓ The five BRICS nations account for almost 50% of the world's economic growth
- ✓ Brasilia became the first city to host its second BRICS summit
- ✓ This BRICS summit has focused on creating mechanisms for counter-terrorism cooperation
- ✓ The 10th BRICS Summit was hosted by South Africa in January 2018.
- ✓ The BRICS summit has been hosted alternatively every year since 2009

## PERSONALITIES

### ◆ **Prince Charles - is in India on his 10th official visit to celebrate British-Indian ties**

- ✓ The Prince of Wales has joined his wife, Camilla, Duchess of Cornwall, who has already arrived in Bengaluru for a week-long rejuvenation therapy at Soukya International Holistic Health Centre
- ✓ The Duchess, Camilla is undergoing therapy under the guidance and care of holistic health practitioner Issac Mathai, who has been a consultant to the royal family for several years now.
- ✓ While this is her sixth visit to the centre, Prince Charles is visiting for the first time.
- ✓ The prince also met President Ram Nath Kovind at the Rashtrapati Bhavan



- ✓ The prince visited the Bangla Sahib Gurudwara in New Delhi and helped in preparing chapattis in the 'langar' or community kitchen area apart from interacting with the devotees.

## SCIENCE, TECHNOLOGY & ENVIRONMENT

### ◆ **The Indian Space Research Organisation (Isro) – is planning to send Chandrayaan-3 probe to Moon with a deadline of November 2020**

## ONLY A LANDER AND ROVER

**Sept 2019** | Isro fails in soft-landing Chandrayaan-2 lander on Moon

**Oct 2019** | Starts preparations for Chandrayaan-3 mission

**Nov 12, 2019** | Overview committee meets to review Chandrayaan-3 configuration

> New mission to have a propulsion module attached to the landing module



**Nov 2020** | Tentative deadline for Chandrayaan-3

- ✓ The new mission will include building a new lander and rover, as the Chandrayaan-2 orbiter is expected to function well atleast for the next seven years
- ✓ In this regard, Isro has formed multiple committees — an overall panel and three sub-committees – and held high-level meetings since October.
- ✓ Senior scientists like S Somnath, Ritu Karidhal, B N Suresh, P S Goel and T K Alex have been chosen to either head or being a member of various committees
- ✓ The key focus for the new mission is “strengthening the legs of the lander”, so that it allows landing even with a high velocity.
- ✓ However, no final decision has been taken on the number of payloads on the lander
- ✓ Isro is also looking at reducing the number of manoeuvres around earth from 6 to 3 or 4 and also during the transit to the lunar orbit
- ✓ Isro had earlier failed to soft-land the probe on Moon in its first attempt with Chandrayaan-2 mission in September 2019

## DEFENCE

### ◆ India - kicked off a major combat exercise with over 40,000 troops, tanks, artillery and attack helicopters on the western front border in Rajasthan

- ✓ The Army has launched the “Sindhu Sudarshan” exercise in the Thar desert on November 13
- ✓ It will be undertaken by the 21 Corps, one of its three main “strike” formations focussed towards rapid armoured thrusts.





- ✓ The exercise aims to test the battle readiness, operational effectiveness and deep strike offensive capabilities of the 'Sudarshan Chakra' (21) Corps (which has its headquarters in Bhopal) in an integrated air-land battle scenario.
- ✓ During the week-long exercise in desert conditions in the Barmer sector, the "combined arms cohesion" will be tested with the newly inducted K-9 Vajra self-propelled artillery gun systems and indigenous armed Rudra advanced light helicopters
- ✓ This exercise follows the recent testing by the 1.3-million strong Army of its new integrated battle groups (IBGs) for mountain warfare in Arunachal Pradesh on the eastern front with China last month
- ✓ Earlier, the month-long "Him Vijay" exercise was focussed towards converting the new 17 "Brahmastra" Corps, which has its headquarters at Panagarh in West Bengal, into "a lean and mean force" for "swift attacks" in a dynamic operational scenario
- ✓ The IBGs — each of which have 5,000 soldiers along with a mix of tanks, artillery, air defence units, signals and other elements — meant for Pakistan were similarly "test-bedded" under the Chandimandir-based Western Command in April-May

## APPOINTMENTS

- ◆ **Philanthropist and chairperson of the Reliance Foundation, Nita Ambani - has been elected to the board of the Metropolitan Museum of Art**



- ✓ Nita has been chosen for her "truly exceptional" commitment to preserve and promote India's art and culture.
- ✓ Ambani has been named as the "Honorary Trustee" of the Museum
- ✓ Nita Ambani's Reliance Foundation has been supporting the Met Museum since 2016

## SPORTS

- ◆ **Indian sprinter Dutee Chand - was named in Time magazine's inaugural list of 100 rising stars from across the globe**



- ✓ The 'Time 100 Next 2019' figures the names of personalities from the fields of 'business, entertainment, sports, politics, science, health, activism and more'
- ✓ This is the first such list brought out by the magazine as part of an ongoing expansion of its flagship 'TIME 100' franchise's list of the most influential persons in the world
- ✓ The Time 100 Next list has 5 categories — artists, advocates, leaders, phenoms and innovators, with Dutee figuring in the second category
- ✓ Dutee recently broke her own national record as the fastest woman sprinter in the country
- ✓ The 23-year-old from Chaka Gopalpur, Dutee, was a law student at KIIT

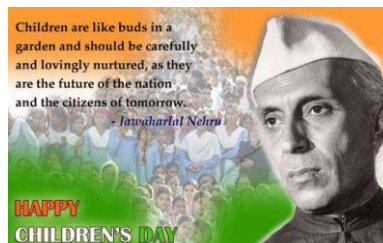
## INTERNATIONAL DAY

### ◆ World Diabetes Day – November 14



- ✓ The observance of the day intends to create awareness about the disease of diabetes.
- ✓ It became an official UN day in 2006.
- ✓ This year's theme for Diabetes Day is – 'Family and Diabetes'
- ✓ Diabetes is a metabolic and chronic disease characterized by an elevated level of blood glucose and loss of insulin production by the body.

### ◆ Children's Day – November 14



- ✓ The birth anniversary of Pandit Jawaharlal Nehru, the former Prime Minister of the country is celebrated as Children's Day every year.
- ✓ On this day, Schools, Ministries and societies participate in various cultural programs and events to entertain children
- ✓ Earlier, i.e. before 1956, it was used to be celebrated on November 20.
- ✓ However, after the death of India's first Prime Minister Jawaharlal Nehru in 1964, a resolution was unanimously passed in Parliament declaring 14 November as National Children's Day

# REPORT

## What the future of computers will look like

Google recently announced it achieved quantum supremacy. The latest development is a step towards a new generation of computers that can solve problems that are unsolvable today. **Anjishnu Das** takes a look at the principles behind quantum computing and why it could revolutionise technology

“For those of us working in science and technology, it's ... the most meaningful milestone to date in the quest to make quantum computing a reality

—SUNDAR PICHAI, GOOGLE CEO

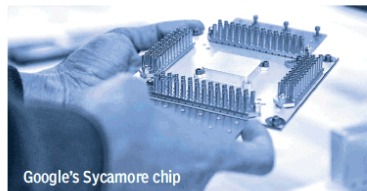


### How qubits turn uncertainty into power

- Each qubit can hold two values compared to just one value per bit. Two qubits can represent four numbers simultaneously, three can represent eight numbers, and so on
- Qubits, when multiple are connected in a group, can provide considerably more processing power than the same number of traditional bits, a property known as entanglement

### But quantum computers are a challenge to run

- For qubits to remain stable long enough to complete a task, they need to be isolated in the right conditions. Quantum computers are housed in refrigerators at temperatures just above absolute zero
- Each quantum computation starts and ends with 1s and 0s — traditional bits
- At the start, bits are converted into pulses of microwaves and sent through wires and pipes to small



Google's Sycamore chip

- superconducting devices holding qubits
- interfere with each other producing an output string of 1s and 0s
- The microwave pulses put qubits into a state of uncertainty between 1 and 0
- At the end, the qubits
- This happens in under a second, which is as long as you can keep qubits in superposition

### Why Google claims quantum supremacy

➤ In a paper in the journal Nature, Google said it had achieved quantum supremacy by having its quantum computer, called Sycamore, solve a problem traditional computers cannot

➤ With this announcement, Google has appeared to take a leap forward in quantum computing, a field that's packed with competition

## 200 SECONDS

How long Google says Sycamore took to complete an impossible mathematical calculation that would take the world's largest supercomputers more than 10,000 years to complete

➤ Already IBM has claimed Google's unsolvable calculation could actually be completed — in less than two-and-a-half days and not 10,000 years — on existing computers

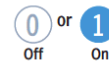
### What makes quantum computers so fast?

➤ Quantum computers are based on quantum mechanics, a field of physics that studies the behaviour of objects at the subatomic level or when exposed to extreme cold

➤ Researchers have found a single object can behave like two separate objects at the same time if it is either extremely small or extremely cold

➤ Quantum computers, based on this principle, attempt to harness this uncertainty to generate processing power

1 Your PC performs calculations using bits, units of information encoded electrically in either the off (0) or on (1) state



2 A qubit can exist as 0 or 1 or both simultaneously, a characteristic called superposition



3 A traditional computer tries answers one by one until it finds the right one, a process too slow for complex problems



4 Superposition enables quantum computers to work faster by considering many possibilities at once, sorting through probable outcomes that converge on the correct answer



Source: NYT, Bloomberg, McKinsey, media reports; Graphic: Karthic R Iyer