

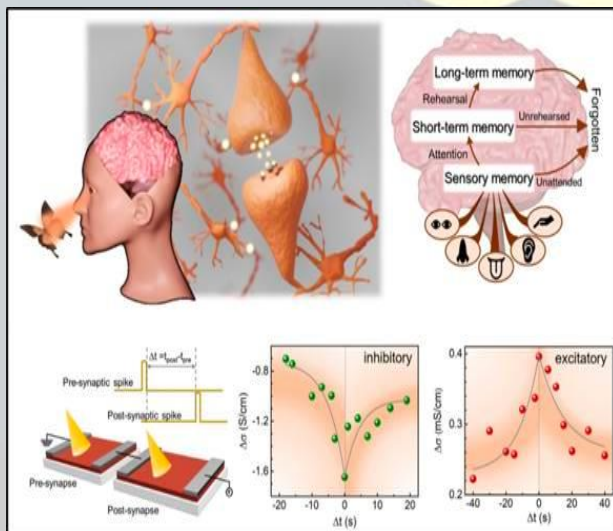
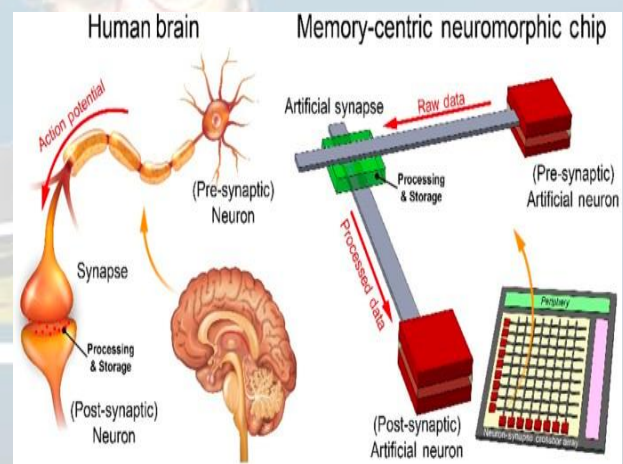
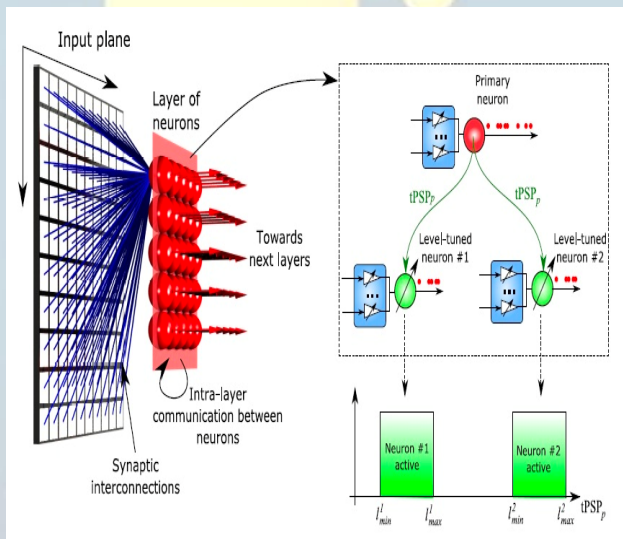
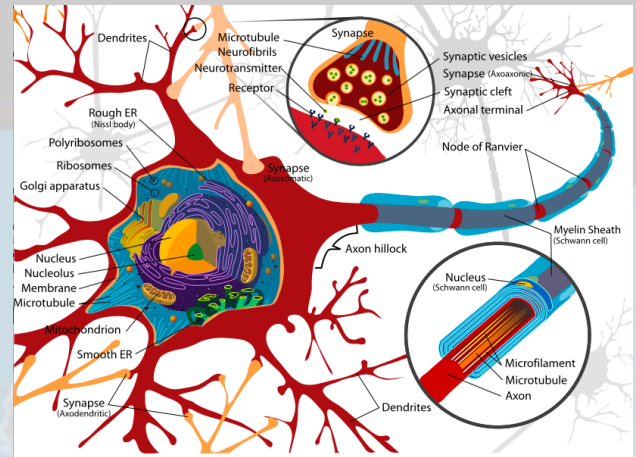
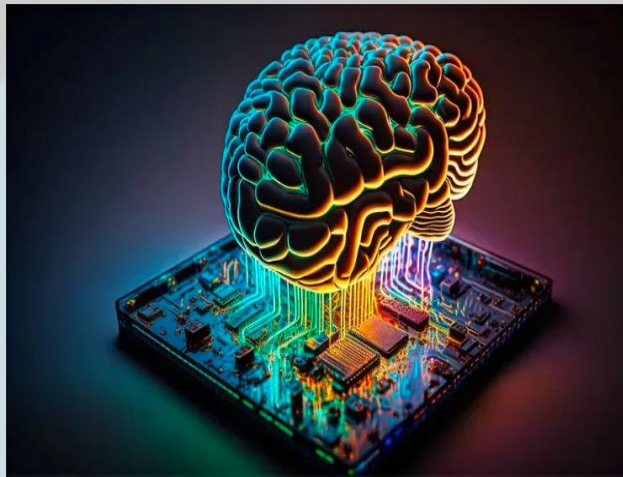
Neuralink



- According to Elon Musk, the first human received an implant from his computer brain interface company Neuralink over the weekend.

- Neuralink is one of many groups working on linking the nervous system to computers, efforts aimed at helping treat brain disorders, overcoming brain injuries, and other applications.
- There are more than 40 brain computer interface trials underway
- Neuralink's device is about the size of a large coin and is designed to be implanted in the skull, with ultrathin wires going directly into the brain.
- In its September announcement, Neuralink said the wires would be surgically placed in a region of the brain that controls movement intention.
- The initial goal of the so-called brain-computer interface is to give people the ability to control a computer cursor or keyboard using their thoughts alone.
- In a separate Monday post on X, Musk said that the first Neuralink product is called "Telepathy", which he said will enable users to control their phones or computers "just by thinking".
- He added that initial users would be those who have lost use of their limbs.
- [The Hindu](#)

Neuromorphic computing



• Scientists have fused brain-like tissue with electronics to make an 'organoid neural network' that can recognize voices and solve a complex mathematical problem.

• Their invention extends neuromorphic computing the practice of modeling computers after the human brain to a new level by directly including brain tissue in a computer.

• The work comes against the backdrop of the staggering rise of artificial intelligence (AI), itself founded on the development of

artificial neural networks brain-like networks of neurons except they're made with silicon chips that can process large datasets that conventional computers struggle with.

The Hindu

Separating memory and processing

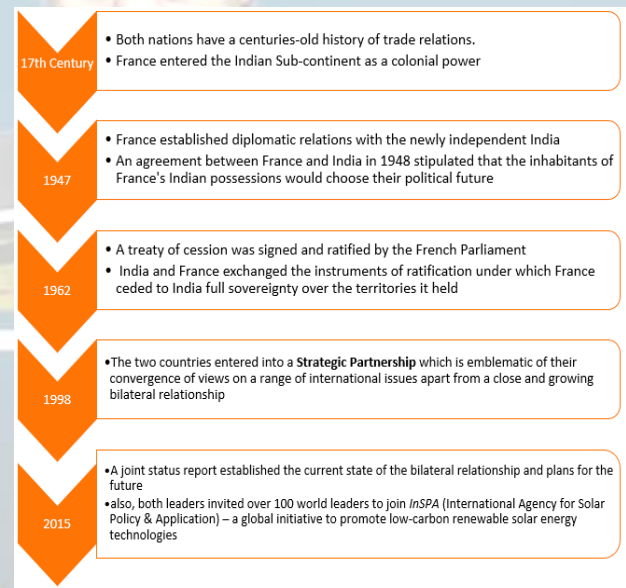
- The hardware on which these neural networks run has a problem, however: the memory units and the data processing units are separate.
- When a neural network operates, the network will have to access the data in the memory unit, bring it over to the processing unit, and work on it and it needs to do this many times over.
- Scientists have tried to build more efficient neuromorphic chips that include some short term memory, so they can avoid going back and forth just a bit.
- These chips have been used for applications like computer vision and speech recognition.
- Brain organoids are three dimensional aggregates of brain cells.
- The scientists made them by extracting human pluripotent stem cells, which are cells that can develop

to become almost any kind of cell within the human body, and made them into brain cells.

- Brain organoids that are aggregates of such cells have a mix of the different types of cells in the brain.

The Hindu

India France relationship



- India and France have valued strategic autonomy, in their own fashion. India adopted non-alignment.
- After the Second World War, France was one of the founding members of North Atlantic Treaty Organisation (NATO) in 1949 and hosted the NATO headquarters; it withdrew from its integrated military command in 1966 due to reservations over U.S. insistence on subordinating French

Current Affairs 1st February 2024 by Saurabh Pandey

nuclear deterrent to NATO and accepting any collective control.

- After the Cold War ended, both countries were quick to espouse the virtues of multipolarity.
- Both France and India share a common trait of 'civilization exceptionalism' and pride themselves on their 'argumentative intellectualism' but have wisely refrained from preaching to each other.
- From the original three pillars of nuclear, space and defence, the agenda gradually expanded to include counterterrorism, intelligence sharing and cyber-security issues.
- Convergence has also evolved on global challenges such as climate change, reform of multilateral development institutions, globally beneficial Artificial Intelligence, and as the joint statement indicates, ongoing conflicts in Ukraine and Gaza.
- On the defence side, six Scorpene submarines have been built by Mazagon Dock Shipbuilders Limited with transfer of technology from the Naval Group.
- Technology sharing memoranda of understanding and acquisitions of

short range missiles and radar equipment were concluded.

- Joint exercises between the navies, air forces and the armies were instituted in 2001, 2004 and 2011, respectively.
- The government to government agreement for 36 Rafale aircraft, salvaged out of the prolonged negotiations
- Mr. Macron's visit saw the conclusion of a India France Defence Industrial Road map that fits in with the goal of atmanir bharta.
- Tata Advanced Systems Ltd. and Airbus concluded an agreement to set up a final assembly line by 2026 for H125 civilian helicopters.
- Cooperation in the space domain began in the 1960s with French assistance to set up the Indian launch facility at Sriharikota but languished in later years because of export controls.
- The strategic dialogue helped restart this cooperation and the Indian Space Research Organization (ISRO) and the French Space Agency (CNES) now work on joint missions.
- The visit saw a new MoU being signed by NewSpace India Limited, a Government of India company under the Department of Space and the

commercial arm of ISRO, and French satellite launch company Arianespace for collaboration on space launches.

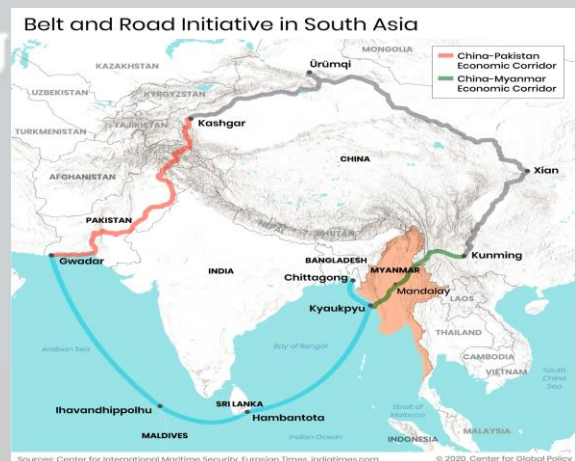
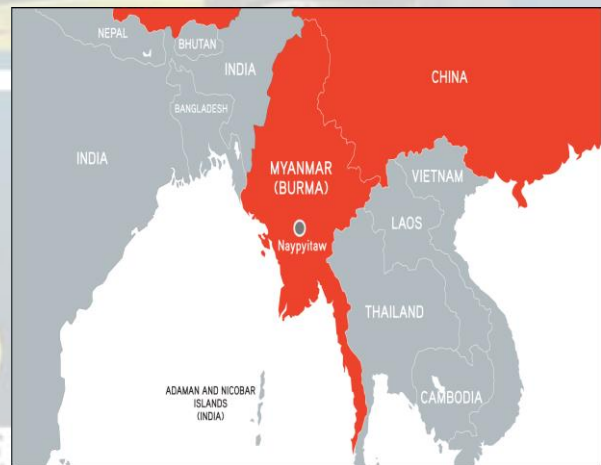
- The challenge for both countries has been to take the partnership out of the government domains into the commercial and civilian spaces.
- As a result, joint working groups on a range of subjects covering agriculture, environment, civil aviation, IT and telecom, urban development, transportation, culture and tourism have been set up over the years.
- One of the success stories has been the growing number of Indian students going to France for higher education.
- A decade ago, it was less than 3,000 and today it is upwards of 10,000.
- The target is now 30,000 by 2030.
- The visa issue is being addressed with a five year Schengen visa for Indians who pursue a postgraduate course in France.
- The operationalization of the Young Professionals Scheme under the Migration and Mobility Partnership Agreement will help.
- Last year, the University Grants Commission revised rules regarding

foreign universities setting up campuses in India.

- ‘Strategic Partnership’ does not require convergence on all issues but sensitivity so that differences, where these exist, are expressed in private and not publicly.
- This is where India-France ties, nurtured over the last quarter century, reflect maturity and resilience.

The Hindu

Myanmar and India





The Hindu



SAURABH PANDEY
— CSE —

(CIVIL SERVICES EXAMINATION)

FROM BASICS TO UPSC BRILLIANCE

Some Major Ch in Myanmar



SAURABH PANDHEY
UPSC BRILLIANCE

Current Affairs 1st February 2024 by Saurabh Pandey

- illegal military coup deprived Myanmar of limited democracy, the nation continues to fight its inner demons. Dubbed the 'sick man of Southeast Asia.
- Myanmar is a large multiethnic nation, located in a strategically significant neighborhood.
- What happens in the country impacts its five neighbours: China, Laos, Thailand, Bangladesh, and India
- Two pillars of the power architecture — the political class and ethnic groups — are ranged against the third — the military; now, all three are facing trouble.
- The political class, represented by the unrecognised group called the National Unity Government (NUG), has defied the odds to assert itself through militia units called the People's Defence Forces.
- They have won many battles against the army, especially in rural Bamar areas.
- The NUG has articulated its vision of a 'federal democratic union'. But due to the regime's ruthless suppression, its leaders operate underground or from Thailand.
- The ethnic armed organisations have inflicted a heavy toll on the Myanmar military along the Thai border in the southeast and the Chinese border in the northeast.
- The victories secured at the end of 2023 by the Three Brotherhood Alliance comprising the Myanmar National Democratic Alliance Army, the Arakan Army, and the Ta'ang National Liberation Army shook the army as nothing else had done before.
- Yet, ethnic organisations remain divided: some oppose the army, some support it quietly, and some stay neutral.
- Given this situation, it is not surprising that the international community has failed to help Myanmar. Various attempts by the United Nations, ASEAN, Japan, and Myanmar's neighbours have been unable to move the country towards reconciliation.
- India's interests, options India's policy of maintaining cordial relations with the government while also supporting the cause of democracy has served both countries well and strengthened bilateral ties.
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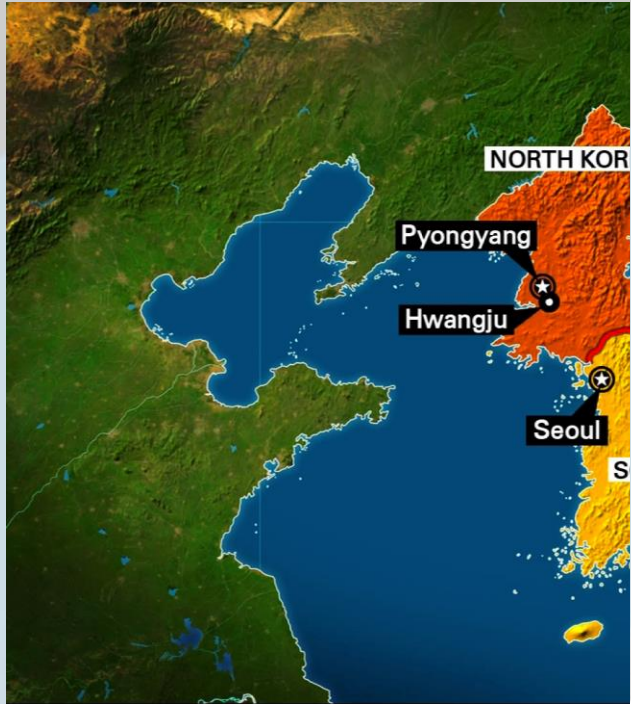
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- India should balance its friendly ties with the military government while broadening the space for engagement with other stakeholders.
- At the same time, it must not interfere in Myanmar's internal affairs.
- Only then can India protect its national interests.
- Several policy adaptations should, therefore, be considered.
- First, the inflow of refugees into Mizoram and Manipur has risen. There is also greater activism of Myanmar based anti India insurgents indulging in illegal activities along the border.
- Second, communication links with certain components of the resistance such as the Chin National Army, Arakan Army and the NUG need to be established, as they gain the upper hand in battles against the military in areas bordering India.
- Third, a strong message of the need for cessation of violence and restoration of normalcy should be relayed to both the government and the resistance.
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- The 'transition to a federal democracy', which India supports, can only come later.
- Fourth, India should consider convening a Peace Conclave of senior officials from the member states of the Quad and the ASEAN Troika comprising Indonesia, Laos and Malaysia.
- Finally, seeking immediate freedom for Daw Aung San Suu Kyi from her unjustified solitary confinement should be a key element in the calculus of the conclave

• **Korean peninsula**



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(EXAMINATION)
UPSC BRILLIANCE



concerns about the deterioration of the international security environment and a deepening of major power rivalry.

What has led to recent aggravation?

- Mr. Kim, in his address to the Supreme People's Assembly on January 15, proclaimed that he is scrapping the decades old North Korean goal of reunifying the South, and has rebranded the South as an enemy state.
- He ordered the rewriting of the North Korean constitution to reflect this new shift in the regime's thinking.
- The offices related to reunification were closed, and a landmark monument in Pyongyang portraying the reunification ideal was brought down.
- In addition to these moves, North Korea has also flexed its military muscle by testing multiple types of missile systems during the first month of 2024 itself.
- One such important test was that of a solid fueled missile carrying a hypersonic warhead.
- The U.S., Russia, China, India and Iran are working on such hypersonic weapons, and North Korea could now join the club.
- There has been a notable uptick in provocative moves by North Korea and the subsequent rebuttals by South Korea and its allies.
- North Korea has rescinded its national objective of Korean reunification and has formally categorised South Korea as an adversarial state.
- The country has also ramped up the frequency and diversity of its missile tests, expanding its strategic capabilities.
- These actions were responded to by South Korea through joint military drills with the U.S. and Japan.
- The ongoing developments in the Korean peninsula have raised serious

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- The U.S., South Korea and Japan have conducted joint naval drills in response to the provocations by North Korea, featuring nine warships.
- North Korea has drifted further into the camp of the Sino Russian axis, as a result of the choices made by Mr. Kim. Russia has boosted its engagement with North Korea, especially in the wake of the Russia Ukraine war.
- Mr. Kim visited Russia in September 2023 and met with Russian President Vladimir Putin.
- During the visit, Mr. Kim was invited to the Vostochny spaceport of Russia, where he was promised assistance in enhancing North Korea's space capabilities in return for arms supplies.
- China has always been consistently supportive of North Korea, being the single largest trading partner of the country.
- At a time when the U.S. is preoccupied with conflicts in Europe and West Asia, Mr. Kim could have found the moment opportune to conduct provocative actions for bargaining with North Korea's adversaries as well as partners.
- Russia and China are on the same side when it comes to the Russia Ukraine as well as the Israel Hamas conflict.
- They have a lot to gain from North Korea creating a distraction for the U.S. by opening a "third front"
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