Prelim Bits 27-10-2021 | UPSC Daily Current Affairs

RoIP in Syama Prasad Mookerjee Port

A Radio over Internet Protocol (ROIP) System is being introduced as a marine communication mode at Syama Prasad Mookerjee Port (SMP), Kolkata, for the first time in any Major Indian Port.

- This system may provide an effective long range Marine communication.
- It shall cover the entire Hugli River Estuary from Kolkata to Sandheads, having base stations at 4 Locations.
- With this facility, vessels at Sandheads can be directly communicated via Radio, from Kolkata, especially during storms and inclement weather.

Radio over Internet Protocol

- Radio over Internet Protocol (RoIP) is a technology for transmitting radio communication signals using the Internet Protocol (IP) standard.
- RoIP provides the same performance as well-enhanced radio communication but uses a digital IP network to enable communication and connection between 2 or more analog radio devices or networks.
- **RoIP is similar to a Voice over Internet Protocol (VoIP)**, but with radio communication features and abilities.

  VoIP is a technology that allowing you to make voice calls over a broadband Internet connection instead of an analog (regular) phone line.

- At its core, RoIP is the integration of VoIP technology in two-way radio. Rather than transmitting voice data through traditional means, RoIP uses internet to send data from one user to another.
- RoIP works in a **half-duplex mode** where only one radio device can communicate at a time.
  - The user must push the push-to-talk (P2T) each time before communicating.
- Besides radio communication features, RoIP enables the connection of 2 or more radio sites together using digital-to-analog converting receivers at both ends, which are directly connected to an Internet backbone.
- Moreover, RoIP also enables interoperability between different radio networks with different and non-compatible architecture.

Syama Prasad Mookerjee Port

- Syama Prasad Mookerjee Port (Erstwhile Kolkata Port) is **India's first Major Port,** which was constructed by the British East India Company.
- It has two dock systems viz.
  1. Kolkata Dock System and
  2. Haldia Dock Complex (A deep water dock).
- Despite being India's **only riverine port**, SMP has been maintaining its pivotal position in

Indian Major Ports for the past 152 years.
- SMP is administered under the Ministry of Shipping through Major Port Trusts Act, 1963.

Superiority of Hybrid Immunity

Multiple studies have shown that the Hybrid Immunity had a higher neutralising antibody response than either natural infection without vaccination or full vaccination in infection-naïve individuals.

> *Hybrid Immunity is the combination of natural immunity from an infection and immunity provided by the vaccine.*

- People without prior infection but fully vaccinated with a vaccine showed a decline in neutralising antibodies over a period of 3 to 7 months.
- But the decline was much less in vaccinated people with prior infection.
- After a single vaccine in people who have recovered from COVID-19, antibody levels skyrocket up.
    - But, a study showed that boosting of pre-existing immunity from prior infection with vaccination resulted in a brief benefit to **antibody levels** with little-to-no long-term increase in **cellular immune memory**.
- **Immunological advantage** from hybrid immunity arises mostly from memory B cells.

> In general, the antibody levels after infection or vaccination decline after a short period.
> But, the memory B cells get triggered on subsequent infection or vaccination.

- So when people recovered from COVID-19 are re-exposed to the virus, the memory B cells are capable of churning out highly potent antibodies.

National Traffic Management Policy Framework for Drones

Ministry of Civil Aviation has notified a National Unmanned Aircraft System (UAS or drones) Traffic Management (UTM) Policy Framework that will manage drone movement in the UTM airspace.

> UTM Airspace is the airspace up to 1000 feet above ground level.

- This framework will allow both public and private third-party service providers to manage the drones in lower airspace.
- To handle the traffic from unmanned aircraft, UTM Service Providers (UTMSPs) will extend automated software services instead of voice communication as in traditional Air Traffic Management (ATM) systems.
- They will primarily be responsible for segregating and separating a drone from other drones and manned aircraft in the lower airspace.
- All drones (except Nano drones operating in the green zone) shall mandatorily share their real-time location through the network to the Centre either directly or through third-party UTM service providers.
- **SSP** - UTM service providers will be assisted by Supplementary Service Providers (SSPs).
- SSPs will maintain data about terrain, weather, and location of manned aircraft and provide

services such as insurance, data analytics and drone fleet management.

- **Integration** - The policy requires UTM to be integrated with ATM so that flight plans & real-time location of manned aircraft can be recorded to continuously separate manned & unmanned aircraft from each other.
- Law enforcement and security agencies will also have access to some information in the UTM ecosystem on a need-to-know basis.
- **Service fee** - The policy also allows UTMSPs to levy a service fee on users, a small portion of which will also be shared with the Airports Authority of India.

Global Pension Index 2021

The 13th Global Pension Index 2021 is published by Mercer, in collaboration with CFA Institute and the Monash Centre for Financial Studies.

- The report compared 43 retirement income systems from around the world, highlighting strengths and weaknesses.
- As the world continues to grapple with the economic implications of the pandemic, the study also reveals factors causing the **gender pension gap** around the world.
- **Findings** - In 2021, new entrant Iceland is named as having the world's best pension system overall.
- India has ranked at 40th position out of 43 countries in the 2021 Index.
- [In 2020, India was ranked at 34th position out of 39 countries.]
- The report reveals that the financial well-being of Indian future retirees is left to chance. Also, it shows that the minimum pension of Indians (as a % of average wage) will be the lowest across the nations.

Report on Cryptocurrency Ownership

- According to data by comparison firm Finder, internet users in Nigeria have the world's highest rates of cryptocurrency ownership, followed by Malaysia and Australia.
- Japan ranked lowest in the list with only 4.6% of the population owning the virtual asset.
- India secured the 7th place with nearly 15.4% respondents saying they own at least one cryptocurrency.
    - In India, nearly 48% women have invested in at least one cryptocurrency, against 52% owned by men.
    - This indicates that both genders are at par in terms of ownership, which is in contrast to other countries like Japan and Norway where less than 30% women own the asset.
- Among all crypto assets, **Bitcoin emerged as most popular**, with the highest adoption seen in Japan with 76.7% people saying they own it.
- About 57% Indians who own cryptocurrency have invested in Bitcoin, according to the Cryptocurrency Adoption Index 2021.

Cryptocurrency Adoption Index 2021

The Global Crypto Adoption Index 2021 was released by the crypto analysis platform Chainalysis.

- The Index ranked 20 countries to measure the level of cryptocurrency adoption and usage by individuals between July 2020 and June 2021.
- Chainalysis ranks countries by their peer-to-peer (P2P) cryptocurrency trade volume and weights it to favour countries with lower purchasing power parity (PPP) per capita and fewer internet users.
    - This is done to highlight countries where more residents are putting a larger share of their overall wealth into P2P transactions.
- **Findings** - Global adoption of cryptocurrency grew over 800% in the past year, especially in emerging market economies.
- This indicates that people turn to virtual money to preserve their savings in the face of currency devaluation, to send and receive remittances and carry out business transactions.
    - Emerging markets took the top spots due to huge transaction volumes on P2P platforms when adjusted for purchasing power parity per capita and internet-using population.
- India ranked second in a list of 20 countries with the highest cryptocurrency adoption rate.
- Vietnam secured the first spot, and Pakistan came third.

Reference

1. https://pib.gov.in/PressReleasePage.aspx?PRID=1766540
2. https://www.techopedia.com/definition/4532/radio-over-internet-protocol-roip
3. https://www.thehindu.com/news/national/kolkata-port-renamed-after-syama-prasad-mookerjee/article31742128.ece
4. https://www.thehindu.com/sci-tech/science/more-studies-show-the-superiority-of-hybrid-immunity/article37129327.ece
5. https://www.thehindu.com/todays-paper/tp-national/framework-to-manage-drone-traffic-notified/article37182776.ece
6. https://www.hindustantimes.com/india-news/india-notifies-framework-for-traffic-management-of-drones-in-lower-airspace-101635256073340.html
7. https://www.livemint.com/news/india/india-notifies-traffic-management-policy-for-drones-11635254607202.html
8. https://www.thehindubusinessline.com/opinion/columns/statistalk/indian-retirement-system-scores-low-on-global-pension-index/article37180563.ece
9. https://www.thehindu.com/sci-tech/technology/india-ranks-second-in-chainalysiss-2021-global-crypto-adoption-index/article36057776.ece

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