

6G AND ITS NEXT BIG LEAP IN GLOBAL NETWORKING...

just when we have started enjoying 5G speed ,the world technology is welcoming its successor -6G the network connecting humans, machines and even intelligence.Mainly it aims to merge AI, quantum computing and ultrasmart networks.

WHAT IS 6G ?

It stands for SIXTH GENERATION of wireless communication technology. It uses the frequency range of terahertz (THz) which provides 1000 thousand times faster networking than 5G.

What IT CAN DO?

- **smart health care** – 6 G's reliability make our real time remote surgeries ,AI diagnostics and biosensors to monitor patients regularly.
- **Holographic communication**-- lets say good bye to video calls since it will enable full body holographic meetings which provide projection of realistic 3-D images which overcomes the drawback of 5 G.
- **Autonomous Mobility**—6 G supports in developing self driving cars,drones and delivery robots.
- **1 trillion connected devices**— 6G makes a webspace from cars and drones to streetlights and wearables.

INDIA'S TECHNOLOGICAL JOURNEY TILL 6G

When other countries are excelling in their technological development, India decided to engage in that competition ,likewise made itself, self-reliant in digital infrastructure which is both a strategic and social need.Initiating with the 4 G towers ,our India brought signal systems to our hometowns.Then came our new vision document named “Bharat 6G vision”(released on march 2023)sets out a roadmap for designing and developing 6G by around 2030.

At the recent international 6G symposium 2025 (held in India),India signed a “Delhi Declaration” which highlights openness,sustainability fot 6 G networks.

GOVERNMENT'S CONTRIBUTION

Our government encouraged from a very small level startups and collaborated with leading groups from US,Europe,Japan,Korea and Brazil.It approved over 310 Crore rupees through the Telecom Technology Development Fund.Modi emphasised India's shift from being a user of Telecom Technologies to being a producer and exporter- under the mantra of “Atmanirbhar Bharath”.

ROLE IN GLOBAL NETWORKING

Global data demand is touching stars,but 6G aims to cut energy consumption per bit by nearly 50% compared to 5G.It's massive Internet Of Everything(IoE) will make the world's infrastructure smarter like smart cities monitoring traffic and pollution.

THE ARRIVAL

6G Internet is anticipated to go live around 2030-2035.Therefore 2030 and beyond will offer a unique set of challenges and opportunities of global relevance.

CONCLUSION

6 G isn't just a faster version of 5G. Its a vast foundation for global networking far beyond our earth reaching space.