Government offers use of Indigenous 5G Test Bed free of cost to Indian Government recognized start-ups and MSMEs for the next six months upto Jan, 2023

Facility available to other stakeholders at nominal rate

With an objective to boost 5G ecosystem within India and to achieve the objectives of Aatmanirbhar Bharat and Make in India initiatives, **Government of India has decided to offer the use of Indigenous 5G Test Bed free of cost to the Indian Government recognized start-ups and MSMEs for the next six months upto Jan, 2023**. It is available at a very nominal rate to all other stakeholders. Department of Telecommunications, Government of India has strongly urged all 5G stakeholders i.e. Industry, Academia, Service Providers, R&D Institutions, Govt. Bodies, Equipment Manufacturers etc. to utilise the 5G testbed facilities and expertise to test and facilitate the speedy development & deployment of their products in the network. Those interested, may apply through web portal https://user.cewit.org.in/5gtb/index.jsp for accessing and using the 5G Test Bed.

Keeping in view India's specific requirements and to take lead in 5G deployment, Department of Telecommunications (DoT) approved financial grant for the multi-institute collaborative project to set up 'Indigenous 5G Test Bed' in India in March, 2018 with total cost of Rs.224 Crore. The eight collaborating institutes in the project are IIT (Indian Institute of Technology) Madras, IIT Delhi, IIT Hyderabad, IIT Bombay, IIT Kanpur, IISc Bangalore, Society for Applied Microwave Electronics Engineering & Research (SAMEER) and Centre of Excellence in Wireless Technology (CEWiT).

The Indigenous 5G Test Bed was dedicated to the nation by the Hon. Prime Minster Shri. Narendra Modi on May 17th 2022. A web based portal (https://user.cewit.org.in/5gtb/index.jsp) has also been designed for access and usage of the Test Bed.

The 5G Test Bed is available at five locations viz., Integrated Test Bed at CEWiT /IIT Madras and other Test Beds are at IIT Delhi, IIT Hyderabad, IIT Kanpur and IISc Bangalore. CEWiT /IIT Madras offers end to end Test Bed with various testing services for RAN Level, PHY Level etc. and other Test equipment. IIT Hyderabad has facilities for gNB Testing, UE Testing, end to end interoperability testing and NB-IoT testing, while IISC Bangalore hosts the V2X and 5G open-source testbed, IIT Kanpur hosts the base-band Test Bed and IIT Delhi hosts the NB-IoT and VLC Test Bed.

The end-to-end test bed is compliant with the global 3GPP standard and the ORAN standard. Indigenous 5G Test Bed provides an open 5G test bed that enables R&D teams of Indian academia and industry to validate their products, prototypes, algorithms and demonstrate various services. Further, it provides complete access for research teams to work on novel concepts/ideas holding potential for standardization in India and on global scale. It provides the facilities of 5G networks for experimenting and demonstrating applications/use cases of importance to Indian society like rural broadband, smart city applications and intelligent transport system (ITS) and shall help to Indian operators to understand the working of 5G technologies and plan their future networks.

The development of this Indigenous Test Bed is a key milestone step for India's becoming self-reliant in the 5G Technology domain and now leading towards 5G Aatmanirbhar Bharat. This Test Bed is providing the Indigenous capability for testing and validation of 5G products being developed and manufactured by Indian start-ups, MSME, R&D, Academia and industry users. This has resulted in huge cost efficiency and reduced design time due to which Indian 5G products are likely to become market competitive globally.

The development of this Test Bed has also resulted into development of many 5G Technologies/IPs which are available for technology transfer to Industry players which shall facilitate the Industry players for smooth and speedy deployment of 5G in India.

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