

## **Innovative Digital Technologies Take Center Stage at a Special Side Meeting ahead of G20 DEWG @ IIT Hyderabad**

**Hyderabad, April 17, 2023:** On the eve of the G20 Digital Economic Working Group (DEWG) meetings in Hyderabad, delegates were treated to a unique experience at the Indian Institute of Technology Hyderabad (IITH). At a special side meeting held on Monday, April 17, the attendees were given an exclusive opportunity to witness ground-breaking projects and research in the field of digital technology.

During the event, IITH proudly showcased a range of cutting-edge 5G products, including an indigenously developed 5G base station, a product of the partnership between the Centre for Development of Telematics (CDOT) and the Bharat RAN consortium. The institute also unveiled an innovative chip that facilitates Internet of Things (IoT) connectivity through both terrestrial 5G base stations and satellites. This chip offers a wide array of applications, including improving efficiencies in logistics, agritech, and health monitoring for both humans and animals.

***In alignment with India's 6G vision launched by the honourable Prime Minister, Prof B S Murty, Director, IITH, introduced a ground-breaking 6G system prototype*** called Aseemat Kshamata Valay Sanchar (Akshay Sanchar). This advanced system leverages state-of-the-art antenna technology to deliver unlimited capacity ubiquitous communication. The live demonstration highlighted the feasibility of achieving unprecedented wireless communication capacities.

Testbed on Autonomous Navigation (Aerial & Terrestrial) was another innovative showcase at the event, where delegates observed the Beyond Visual Line of Sight (BVLOS) operation of drones delivering medicine. This demonstration highlighted the potential applications of autonomous navigation technology in healthcare and emergency situations. A networked Swarm of Drones were demonstrated using a flock of 18 Drones. The main application for this technology lies around Disaster Management, Crowd Monitoring, and Coordinated Surveillance over a large area. Along with this, Bio-inspired Flapper drones were also demonstrated, which have applications around Extra-terrestrial surveillance and rover-based communications.

The attendees were presented with an AI-powered RNA- electronic test kit capable of detecting any virus, antibodies and antigens. This pioneering technology has the potential to revolutionize diagnostic processes, enabling tele-diagnostic and telemedicine capabilities and transforming healthcare and disease prevention on a global scale.

Lastly, in the Autonomous Ground vehicles domain, multiple ADAS and Full autonomy use cases such as autonomous navigation, autonomous parking, obstacle avoidance, connected vehicles, and data collection using various categories of vehicles were demonstrated, which enables road safety globally.

The G20 DEWG delegates expressed their admiration for the innovative demonstrations, acknowledging IITH's unwavering commitment to advancing the digital economy through ground-breaking research and development.

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### **About IIT Hyderabad:**

Indian Institute of Technology Hyderabad (IITH) is one of the eight new IITs established by the Government of India in 2008. In a short span of **15** years, the institute has become a top-ranker. It has **300+** full-time faculty, **~4,200** students, **18** Departments + Centre for Interdisciplinary Programs, nearly **200+** state-of-the-art laboratories, and five research and entrepreneurship centres. The institute has a strong research focus with approx. Rs **~700** crores of sanctioned research funding, with PG+PhD students accounting for about **60%** of total student strength. IITH has more than **8700+** research publications with **1,30,000+** Citations, **190+** Published Patents, **2,000+** sponsored/consultancy projects with **500+** running projects, and about **125+** startups that have generated 1000+ jobs and a revenue of Rs. 800+ Cr.

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