



संचार मंत्रालय
MINISTRY OF
COMMUNICATIONS



5G & 6G Hackathon WTSA and IMC 2024

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THE **AI SCHOOL**



International Telecommunication Union

Committed to connecting the world

SPACE SUSTAINABILITY FORUM 2024

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Coming up: Global Standards Symposium

The ITU standardization community charts the next digital wave – and encourages you to participate in New Delhi or online.

[Register now](#)

ITU is the United Nations specialized agency for information and communication technologies (ICTs), with 193 Member States and over 1000 affiliated organizations. It is headquartered in Geneva, Switzerland

- ITU facilitates international connectivity
- by allocating global radio spectrum and satellite orbits,
 - developing technical standards, and
 - working to improve digital access in underserved communities.
 - It provides a platform for international agreements, knowledge sharing, and capacity building.

NEWS AND VIEWS

Solar storms: Are we ready for another Carrington Event?

Advancing AI for hazard resilience

Standardization takes centre stage

World Telecommunication Standardization Assembly



ITU WTSA

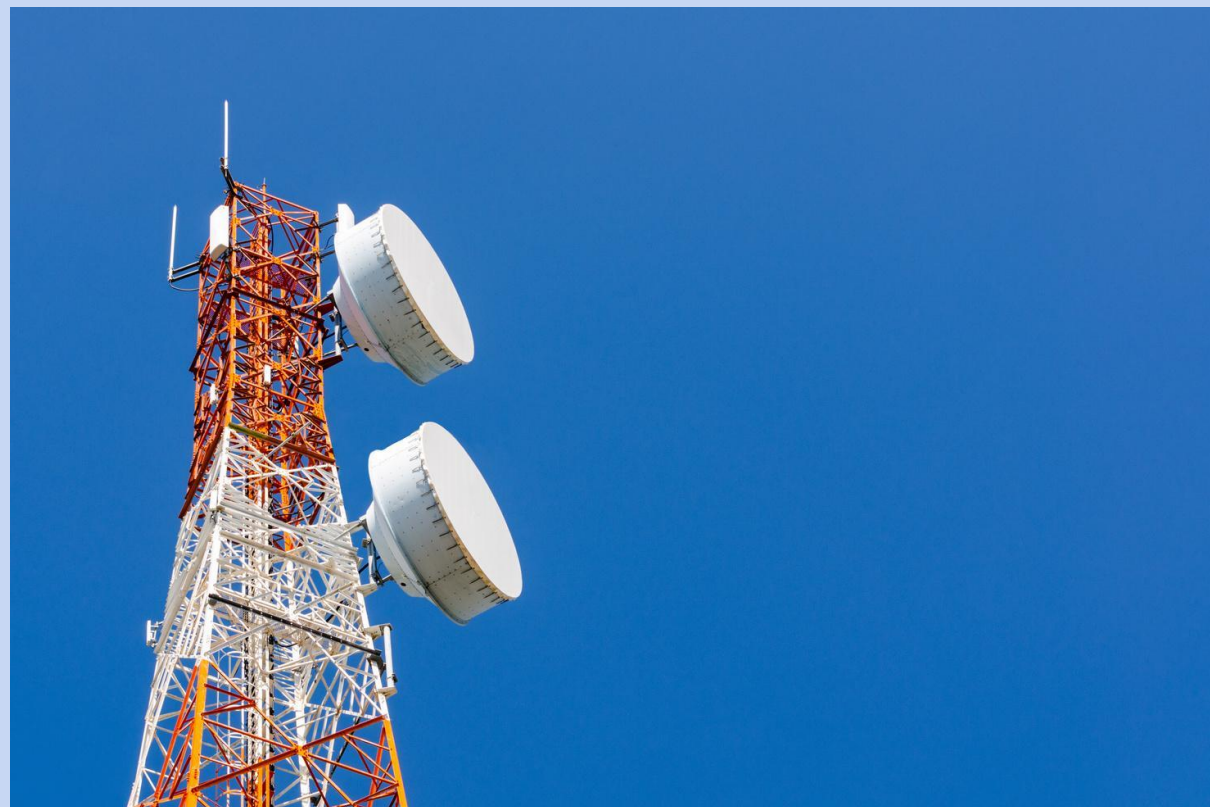
NEW DELHI 2024

15 TO 24 OCTOBER 2024

- The World Telecommunication Standardization Assembly is held every four years and defines the next period of study for ITU-T.
- WTSA-2024 is planned to take place from 15 to 24 October 2024 in New Delhi, India.

Indian Mobile Congress

Asia's Largest Tech Fest



- The India Mobile Congress is a significant tech event that blends innovation with imagination, focusing on shaping the future digital landscape through the convergence of dreams, technologies, and aspirations.
- The eighth edition of the India Mobile Congress will be held from 15-18 October 2024 at Bharat Mandapam, New Delhi.
- This edition of the Congress will take place alongside WTSA'24, the governing conference of the ITU Standardization Sector (ITU-T), highlighting its importance in the global tech and ICT landscape.

5G & 6G Hackathon 2024



The poster features logos for the Ministry of Communications, India Telecom, and TCOE India. It includes a call to action for network technology enthusiasts to join and build for telecom, media, and technology. A registration deadline of September 15, 2024, is highlighted. The event title '5G & 6G HACKATHON 2024' is prominently displayed. A detailed description explains the goal of identifying and promoting applications relevant to India in the 5G, 6G, and associated technology domains. It mentions that applications are invited from telecom stakeholders, governments, academia, and industry members. The poster also lists three locations: Delhi, Bengaluru, and Hyderabad, each with a corresponding icon. A background image shows a person holding a smartphone.

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भारत दूरसंचार
INDIA TELECOM

TCOE India

5G & 6G HACKATHON 2024

Calling All network technology Enthusiasts

Join and Build for Telecom, Media and
Technology

Register before 15th Sep 2024

5G & 6G HACKATHON 2024

TCoE India, on behalf of Department of Telecommunications (DoT), has launched '5G & 6G Hackathon 2024' in its endeavor to identify and promote applications relevant to India in the 5G, 6G and its associated technology domain. The applications are invited from telecom stakeholders including governments, academia & Industry members, individual etc., to demonstrate applications/ products/ solutions that can be converted into workable/ practical 5G and 6G technologies.

Every next generation of telecom technologies represents a significant advancement compared to legacy technologies, offering substantial improvements in terms of speed, peak data rates, reduced latency, enhanced spectrum efficiency, and increased connection density. One of its most notable features lies in its diverse applications across various economic sectors. This hackathon aims at developing India-specific use cases harnessing the capabilities of 5G, 6G and its associated technology.

Locations

Delhi Bengaluru Hyderabad

- TCOE India, on behalf of Department of Telecommunications (DoT), has launched '5G & 6G Hackathon 2024'.
- Aim is to support development of new range of 5G & Beyond use case applications for the emerging needs of Global Digital community
- Shortlisting of winners will be notified 15 - 20 days prior to the WTSA 2024 event.

Timeline

29th Aug '24

Launch of 5G & 6G
Hackathon 2024



29th Aug - 15th Sep '24

Registration And Ideas
Submission



16th Sep - 21st Sep '24

Screening Phase I for
Submitted applications
(Online)



26th Sep - 27th Sep '24

Screening Phase II (Physical
demo at prescribed 5G site)



September End '24

Winner Announcement



15th Oct - 18th Oct '24

Demonstration of Product/
Solution in IMC Event
(For winners)





PROBLEM STATEMENTS

5G & 6G Hackathon 2024

Suo Moto



Solution using 5G, 6G and Emerging Technologies for the following Application verticals:

- Automobile/ Transport/Logistics
- Industry 4.0
- Tourism
- Enterprise & Emergency Communication
- Smart Cities
- Railways
- Mining/ Ports/ Airports
- Power
- Rural & Remote Communication
- FinTech
- Water Management
- Sports
- Cyber Security, Quantum communications and security
- Environment, Public Safety & Disaster Management

AI-Driven Network Maintenance



Develop an AI-powered system that predicts network failures, optimizes maintenance schedules, and reduces downtime.

Design of Multi-Modal Interactive system



Multi-modal interaction system that combines visual, auditory, and haptic feedback for a fully immersive experience. This could include realistic gestures, voice commands, and tactile responses, all synchronized

5G Kiosk



Kiosk that uses 5G wireless technology to improve its functionality.

- Faster speeds
- More devices
- Better Security

Problem Statement

With a very poor doctor to patient ratio in the country, access to medical practitioners and health care workers remains a big challenge for even the first level diagnosis at the primary health care centers across rural India.

Twin Technology



- A digital twin is a virtual representation of an object or system designed to reflect a physical object accurately. It spans the object's lifecycle, is updated from real-time data and uses simulation, machine learning and reasoning to help make decisions.



Problem Statement

- Design a digital twin application that solve a real life problem in India

Non-Terrestrial Network (NTN) Communications



- Wireless communication systems that operate above the Earth's surface.
- They use a variety of platforms, including satellites, high-altitude platforms, and drones, to provide connectivity in places that are otherwise difficult to reach

Problem Statement

IoT's applications in remote areas are resource constrained in terms of power, data management, and network scalability. Design a NTN-Enabled IoT solution to address the above-mentioned challenges.

5G Broadcasting



Problem Statement

Lack of visual information on natural calamity prone areas such as landslide areas of motorable sections of the highways/roads, water levels at bridges in flood prone regions, areas affected by cyclones leads to loss of life and property.

5G BROADCASTS



- Enables the delivery of multimedia content over 5G networks in broadcast mode .

Problem Statement

Human-animal encounters across country is a common problem for all the roads in remote forest areas

5G O-RAN



Problem Statement

Develop industry automation use case(s)
using 5G O-RAN

- Open RAN, or Open Radio Access Network, is a shift in the way to designing and deploying radio access network infrastructure in the telecommunications industry.
- It aims to disaggregate and open up the Radio Access Network, enabling greater flexibility, interoperability, and innovation in network deployments, and nourish new innovative business opportunities.

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THANK YOU!