

FG-AINN Build-a-thon 2025 Concludes with Global Show of AI-Native Network Innovation

Team SliceMinds Wins Top Honors at AI-Native Networking Build-a-thon

Build-a-thon Marks Milestone in India–ITU Efforts to Foster Ethical, Inclusive, and Standardized AI for Telecom Innovation

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The **Focus Group-AI Native Networking (AINN) Build-a-thon 2025** concluded today with the successful presentation of innovative, AI-native telecom solutions by 10 finalist teams from around the world. Organized as part of the 3rd Meeting of ITU Focus Group on Autonomous Networks (FG-AINN) held in New Delhi from 11th June 2025, the event brought forward key contributions towards standardization in future autonomous networks.

Launched jointly by the **Telecommunication Engineering Centre (TEC)**, the technical arm of the **Department of Telecommunications (DoT)**, and the **International Telecommunication Union (ITU)**, the Build-a-thon served as a global innovation platform aligned with FG-AINN's objectives.

This global innovation challenge aimed to accelerate the development of **AI-native networking systems**, contributing to international standardization efforts by identifying key gaps, proposing use cases, developing architectural frameworks, and building Proofs of Concept (PoCs). The Build-a-thon served as a collaborative platform for developers, researchers, students, startups, and telecom professionals to create open-source solutions for autonomous networks, including closed-loop automation, intent-based operations, and digital twin ecosystems.

The FG-AINN Build-a-thon 2025, a crowdsourced coding event brought together experts from academia, industry, and startups to co-create practical demonstrations of AI-native concepts through interactive mentoring and collaborative sessions. The registration for the event began in early May 2025, followed by regular mentoring sessions. A total of **23 teams comprising 57 participants from around the world** registered, out of which **10 teams were shortlisted** for the final presentation today.

All shortlisted participants were felicitated with certificates and the top three prizes were awarded to **Team SliceMinds (1st place)**, **Team SNR (2nd place)**, and **Team Nowiresattached (3rd place)**. Special recognition was given to **Team AIONETx** as the best all-women's team, and **Teams OMACS and SSN** for excellence in mentorship.

The awards were presented by **Smt. Tripti Saxena (Sr. DDG, TEC)**, **Dr. Rajkumar Upadhyay (CEO, C-DOT)**, and **Shri Deepesh Srivastava (AVP, Tejas Networks)**.



Key outcomes of the event included:

- Practical AI-driven solutions for **network slicing, traffic shaping, intent-based automation, and self-healing networks**;
- Development of PoCs for **digital twins, LLM-based knowledge platforms, and RAN optimization**;
- Strong engagement of academia, startups, and professionals through structured mentoring and hands-on demonstrations.

This Build-a-thon marks a significant step towards India's and ITU's shared goal of fostering **ethical, inclusive, and globally standardized AI** to power digital transformation and sustainable telecom innovation.

This is an important initiative by TEC and ITU-T FG-AINN as part of country's continued commitment to promote **standardized, ethical, and inclusive AI** that advances digital transformation and sustainable development.

About finalist teams demonstrated diverse approaches:

1. **AIONETx** A women-led team from VIT Chennai focused on packet classification and dynamic policy injection using AI inference for traffic shaping, exploring adaptive control in live networks.
2. **Sliceminds** Students and faculty from SRM Institute of Science & Technology tackled intelligent network slicing through JSON-based vendor selection, agent-based monitoring, and 5G function mapping, using an Open5GS lab setup.
3. **SNR** A team from RVCE Bengaluru demonstrated intent-based automation, converting human operator input into CLI commands using AI-driven models, integrating operator intent with direct network actions.
4. **Nowiresattached** Students from MIT Bengaluru worked on self-healing networks using fault injection in ns3, and employed LLM agents integrated with OpenAI's MCP tools for autonomous fault resolution.
5. **Cellucast** Comprising members from RVCE and Nokia, presented dynamic AI model selection for traffic analysis and RAN parameter optimization, exploring data handling mechanisms for scalable operations.

6. **Sigvision** A joint effort by IIIT-Bangalore and Nokia proposed human activity detection using wireless signals with bi-directional LSTM models, focusing on cross-layer AI application integration.
7. **SSN** From SSN College of Engineering, Chennai enabled AI-driven beamforming simulations, linking simulation intent to YAML-based configuration and automation, for smarter RF planning.
8. **SPV** Software engineers and mentors from SRM University (AP) applied AI for fake news detection within the network, exploring federated learning, CDN-layer inference, and semantic verification as network-integrated services.
9. **OMACS** Students from SRM University, Guntur showcased health monitoring over 5G, proposing cross-domain data sharing, AI pipeline deployment under low-latency constraints, and app-to-network interface design.
10. **TechRanger** developed a Large Language Model (LLM)-driven knowledge base referencing ITU specifications, aimed at generalizing telecom standards into intelligent, reusable assets.



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