DoT Leads Thematic Session on ‘Intelligent Networks and Quantum Communication’ at ESTIC 2026

Session highlights AI-native 6G networks, quantum-safe communication, cybersecurity and indigenous telecom technologies

C-DOT and BSNL showcase telecom technologies, while Sanchar Saathi and Samridhh Gram are featured at outreach stalls

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The Department of Telecommunications (DoT), Ministry of Communications, led the thematic session on ‘Intelligent Networks and Quantum Communication’ on 28 October 2026 at the Emerging Science, Technology and Innovation Conclave (ESTIC) 2026, being held at Bharat Mandapam, New Delhi, from 27 to 29 October 2026. Chaired by the Secretary, Department of Telecommunications, the session brought together experts from industry and academia to discuss emerging communication technologies and their role in building secure, intelligent and resilient digital infrastructure.

In his opening remarks, Shri Amit Agrawal, Secretary, Department of Telecommunications said, “India has one of the largest, most affordable telecom networks with 1.2 billion mobile network connections and 5G services in almost every district with one of the fastest 5G rollouts in the world. Department of Telecommunications has been supporting indigenous R&D efforts from the laboratory to the market through the Telecommunications Technology Development Fund, or TTDF, and we have so far supported over 130 projects worth to the tune of about ₹ 500 crore. In addition, through the Technology Development and Investment Promotion Scheme, with an outlay of again over ₹ 200 crore, recently renewed for the five-year period up to 2031, we are also helping startups and micro, small, and medium enterprises to join the global standardization, and test solutions in live networks.”



Delivering the keynote address, Mr. N. G. Subramaniam, Chairman, Tejas Networks Ltd., spoke on ‘Engineering Intelligent, Post-Quantum Networks: Autonomous and Trusted’. He highlighted how artificial intelligence, quantum-safe technologies and blockchain can complement one another, AI can enable network intelligence and automation, quantum-safe technologies can strengthen confidentiality and cryptographic resilience, and blockchain can support shared trust and accountability. He emphasised that trust must be engineered into next-generation networks.

The session also featured invited presentations on practical applications of intelligent and secure networks. Ms. Meenal Gupta of Easiofy Solutions presented ‘AI-Powered Medical Imaging over Quantum-Secure Intelligent Healthcare Networks’, illustrating how AI-enabled medical imaging can be supported by high-bandwidth, low-latency connectivity and quantum-safe security to facilitate faster, scalable and secure diagnostics, including beyond major urban centres. Mr. Himamshu Khasnis of Signalchip Innovations spoke on ‘Intelligent and Secure Radio Access Networks: From Chips to Systems’, highlighting indigenous radio-access-network chips and systems, AI-enabled network optimisation and adaptation, and advanced and post-quantum security. His presentation also outlined the role of domestically developed chipsets, radio units and base-station solutions in strengthening India’s telecom technology ecosystem.



A panel discussion brought together experts from academia and industry, including Prof. Rohit Budhiraja, IIT Kanpur; Prof. Bhaskar Kanseri, IIT Delhi; Ms. Sonali Garg, Senior Manager, HFCL; Dr. Ravi Parkash Gandhi, Chief Revenue Officer, Reliance Jio; and Mr. Rajesh Kumar Pathak, Director General, Bharat 6G Alliance. The discussion was moderated by Dr. Rajkumar Upadhyay, CEO, Centre for Development of Telematics (C-DOT). The panel exchanged perspectives on intelligent networks, quantum communication, cybersecurity and the development and adoption of indigenous telecommunications technologies.

The session also provided a platform to discuss India's longer-term vision for intelligent and quantum-secure networks. The accompanying vision document identified priority areas including indigenous 6G technologies, AI-native networks and AI-driven cyber defence, a national quantum-secure backbone, zero-trust and cyber-resilience, and skills development. It also emphasised stronger links between research, testbeds, industry and commercial deployment.

DoT's participation in ESTIC 2026 extended beyond the thematic session to technology and public-outreach showcases. At the thematic stall, C-DOT and Bharat Sanchar Nigam Limited (BSNL) jointly showcased technologies and solutions relating to quantum communication and Mission Critical Services. At the Ministry/Departmental Outreach Stall, DoT showcased the Sanchar Saathi and Samridhh Gram initiatives, highlighting their public-facing applications and societal relevance.



The exhibition also provided dedicated spaces for deep-tech start-ups to showcase mature technologies across the Conclave's 12 thematic areas.

DoT continued its active participation in ESTIC, building on its engagement in ESTIC 2025, where it led the thematic session on 'Digital Communication', by leading the session on 'Intelligent Networks and Quantum Communication' at ESTIC 2026. Through these engagements, DoT has fostered collaboration among industry, academia and research institutions to advance indigenous telecom innovation, next-generation technologies and India's future telecom ecosystem.

About ESTIC

The Emerging Science, Technology and Innovation Conclave (ESTIC) 2026 is being held from 27 to 29 October 2026 at Bharat Mandapam, New Delhi, under the theme 'Creative Minds, Catalyzing Science, Empowering Technologies'. Organised by the Council of Scientific and Industrial Research (CSIR), under the guidance of the Office of the Principal Scientific Adviser, with CSIR–National Institute for Interdisciplinary Science and Technology (NIIST) as the organising partner, the Conclave was inaugurated by Prime Minister Shri Narendra Modi on 27 October 2026.

The Conclave brings together stakeholders from government, academia, research institutions, industry, deep-tech start-ups and the scientific community to deliberate on emerging technologies and their contribution to Viksit Bharat@2047. Its programme includes plenary talks, 12 thematic technical sessions, panel discussions, presentations by science and technology leaders and start-ups, exhibitions, poster presentations, and business-to-business and business-to-government meetings. The thematic areas include advanced manufacturing, energy technologies, synthetic biology, ocean and maritime technologies, intelligent networks and quantum communication, semiconductors, agri-tech, generative and autonomous artificial intelligence, robotics, advanced healthcare, immersive technologies and space science.

The Conclave also features distinguished international scientific personalities, including Nobel Laureates Prof. Joachim Frank, Sir Richard J. Roberts and Prof. Kostya Novoselov, alongside eminent Indian and international science and technology leaders. ESTIC serves as a national platform for showcasing technological advancements, identifying emerging scientific priorities and strengthening collaboration among research, industry and government.

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