



Ministry of Defence



DRDO and IIT Delhi scientists demonstrate Quantum Key Distribution between two cities 100 kilometres apart

Posted On: 23 FEB 2022 8:18PM by PIB Delhi

A joint team of scientists from Defence Research and Development Organisation (DRDO) and Indian Institute of Technology (IIT) Delhi, for the first time in the country successfully demonstrated Quantum Key Distribution link between Prayagraj and Vindhyachal in Uttar Pradesh, a distance of more than 100 kilometres. This technological breakthrough was achieved over a commercial grade optical fibre already available in field. With this success, the country has demonstrated indigenous technology of secure key transfer for bootstrapping military grade communication security key hierarchy. The performance parameters have been measured and have been found to be repetitively within the reported international standards at sifted key rates of up to 10 KHz. This technology will enable security agencies to plan a suitable quantum communication network with indigenous technology backbone.

Secretary Department of Defence R&D and Chairman DRDO Dr G Satheesh Reddy congratulated the scientists and faculty of DRDO and IIT Delhi for the demonstration of this technology. In his message to the involved scientific fraternity, he mentioned this as one of the shining examples of synergetic research between DRDO and Indian Institute of Technology, Delhi. Director IIT Delhi Professor Rangan Banerjee also congratulated the faculty of IIT Delhi and scientists of DRDO associated with this development for their dedicated efforts to enhance country's technological capability.

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(Release ID: 1800648) Visitor Counter : 3277

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