

**GOVERNMENT OF INDIA**  
**MINISTRY OF COMMUNICATIONS AND INFORMATION TECHNOLOGY**  
**DEPARTMENT OF TELECOMMUNICATIONS**  
**LOK SABHA**  
**UNSTARRED QUESTION NO.3994**  
**TO BE ANSWERED ON 23<sup>rd</sup> DECEMBER, 2015**  
**R&D IN TELECOM**

**3994. SHRI JAGDAMBIKA PAL:**

Will the Minister of COMMUNICATIONS AND INFORMATION TECHNOLOGY be pleased to state:

- (a) whether the Government proposes to promote research studies in the area of telecom and relevant technology;
- (b) if so, the details thereof;
- (c) the steps taken by the Government to encourage research and innovation in the field of telecom and relevant technologies through educational institutions and other research institutes in the country; and
- (d) the achievements made out of such steps taken?

ANSWER

**THE MINISTER OF COMMUNICATIONS AND INFORMATION TECHNOLOGY**  
**(SHRI RAVI SHANKAR PRASAD)**

(a) & (b) Madam, Apart from C-DoT which is the Telecom Technology Development Centre of DoT under Government of India, Telecom Centres of Excellence (TCOEs) have been established by bringing together Academic Institutions, Telecom Service Providers and Government with the objective of promoting development of new technologies to position India as a global leader in telecom innovation and a hub of telecom equipment manufacturing. Further, the Telecom Standards Development Society of India(TSDSI) has been formed to contribute to development of next generation telecom standards and drive IPR creation.

(c) C-DOT constantly interacts with user industry sectors like Defence, IT, Telecom etc. to understand their emerging technology requirements and also interfaces / engages with other research institutions, premier academic institutions for joint development. Apart from C-DoT the Department through TCOEs has organized 3 innovation meets by bringing together the government, industry/associations, academic institutions, Venture Capitalists and entrepreneurs. These TCOEs have been co-located at 6 IITs & IISc Bangalore to facilitate constant interaction with the Educational Institutes.

(d) C-DoT has developed and transferred the technology for the products like Terabit Router, Giga-bit Passive Optical Network(GPON) and 100 Gbps Optical Transport Network(OTN) to be manufactured in the country. The TCOEs are involved in 89 R&D projects, out of which 42 have been completed and 5 start-up incubated. TSDSI members have submitted India Specific requirements resulting in technical contributions to 3<sup>rd</sup> Generation Partnership Project(3GPP) which are being discussed in the framework of 4G and Narrow Band Internet of Things(NB-IoT) standards for Possible adoption.

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