

**GOVERNMENT OF INDIA
MINISTRY OF COMMUNICATIONS
DEPARTMENT OF TELECOMMUNICATIONS**

**RAJYA SABHA
UNSTARRED QUESTION NO. 3041
TO BE ANSWERED ON 27TH MARCH, 2025**

5G LAB AT GAUHATI UNIVERSITY

3041 SHRI LAHAR SINGH SIROYA:

Will the Minister of Communications be pleased to state:

- (a) the manner in which the establishment of the 5G Lab at Gauhati University contribute to research and innovation in next-generation telecom technologies;
- (b) the key benefits of Assam's role in India's semiconductor manufacturing ecosystem, and how will it support the country's technological self-reliance;
- (c) the measures being taken to bridge the digital divide in rural Assam through initiatives like Samridhi Gram Yojana; and
- (d) the role public-private partnerships play in accelerating Assam's digital transformation and positioning the state as a technology hub?

ANSWER

**MINISTER OF STATE FOR COMMUNICATIONS AND RURAL DEVELOPMENT
(DR. PEMMASANI CHANDRA SEKHAR)**

- (a) Centre for Development of Telematics(C-DOT), the telecom R&D center of Govt of India, has established an indigenous 5G lab at Gauhati University that enables the faculty and students in gaining practical insights into an end-to-end 5G system, developing a deeper understanding of 5G technology, system capabilities while exploring new 5G use cases and applications and providing a foundation for advanced research and specification development for 6G technologies.
- (b) Government has approved Semicon India programme with a total outlay of Rs 76,000 crore for the development of semiconductor and display manufacturing ecosystem in the country. Government has approved Tata Electronics Private Limited (TEPL)'s proposal for setting up of Outsourced Semiconductor Assembly and Test (OSAT) facility in Morigaon, Assam, with an investment of Rs. 27,120 crores and a production capacity of 48 million Units per day.
- (c) Government has taken following measures to bridge the digital divide in rural Assam:
 - BharatNet project is being implemented in a phased manner to provide broadband connectivity to all Gram Panchayats (GPs) and villages beyond GPs on demand basis in the country including Assam. Under Samriddh Gram Panchayat pilot project, targeted approach is adopted for providing Fibre to The Home (FTTH) connections to public institutions, private enterprises/ entrepreneurs and households, in identified one GP of each block of the country including Assam, as per Amended BharatNet program.

- In addition to the 5G usecase lab at Gauhati University, Government has also established 5G use case lab at IIT Guwahati and NIT Silchar to support students, startups and MSMEs in testing and developing 5G-based usecase applications and solutions.

(d) Department of Telecommunications has also funded following research and development project to IIT Guwahati to promote Public-Private Partnerships (PPPs) to accelerate Assam's digital transformation and establishing it as a technology hub.

- i. Wearable IoT Enabled Devices for Pre- disease Condition monitoring and Epidemic Surveillance in the beyond-5G Era
- ii. Development of Terahertz Topological Photonic Passive Devices for 6G applications
- iii. Developing hardware and software-based post quantum secure platforms for performing homomorphic computations on encrypted data.
- iv. 6G: THz Test bed with Orbital Angular Momentum and Multiplexing in collaboration with other institutes
