

# Bright Minds Join Hands for 5G Test Project

An over 200-member team comprising people from IITs, other top institutes to help develop 5G technology in a DoT-backed project

## 5G Road Map Likely by June: Telecom Secy

**Devina Sengupta & Sreeradha D Basu**

**Mumbai:** More than 200 researchers, students and teachers from across five Indian Institutes of Technology have joined forces over a ₹300-crore project to develop 5G technology and its use cases in India.

The department of telecommunications-backed project, being billed as the biggest collaborative effort between these institutes, will aim to develop a comprehensive test-bed for 5G that can be used by technology companies, telecom operators, academics and startups for R&D purposes and developing 5G products and solutions.

"This is the biggest project where IITs are working together and more than 200 people will work as a team," said Abhay Karandikar, dean (faculty) at IIT Bombay. His 30-40-member-strong team will work on technologies such as software defined networking, network function virtualisation and core network.

The 5G technology, which will weave in artificial intelligence and big data analytics at high speeds, will have applications in defence, agriculture, healthcare and the automobile sector,

among others, improving the lives of millions of people. It also promises to deliver data speeds at up to 10 times that of 4G.

Professors at the IITs said this will be the world's largest test-bed for 5G, with the funds being used to procure equipment and hire top-notch researchers to usher in the next game-changer in the telecommunications industry.

Working alongside the participating IITs at Madras, Hydera-

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bad, Bombay, Delhi and Kanpur will be the Indian Institute of Science-Bangalore, Centre of Excellence in Wireless Technology (ce-WIT), and Society for Applied Microwave Electronics Engineering and Research (SAMEER), officials and professors said.

The project has the government's full backing—Finance Minister Arun Jaitley had said in his Budget speech that the telecom department will support a 5G technology test-bed that will be anchored out of

IIT Madras and whose rollout could be expected in 2020, in line with global rollouts.

Last year, the government had earmarked ₹500 crore for R&D to roll out 5G in India, the corpus from which the project will be funded.

"This is for the first time that such a large end-to-end test-bed has been approved by the government. It is a great opportunity for Indian wireless research and start-up community to utilise the 5G test-bed and build a wireless eco-system," said IIT Madras professors Radhakrishna Ganti and R David Koilpillai.

The institute will also help in the overall testing and integration of all sub-system modules and the demonstration of the complete functionality of the final test-bed.

"We will hire project staff, bring in research scholars and buy equipment, which may cost ₹20-30 crore a piece. The overall project may be around ₹300 crore," said Brejesh Lall, head of Bharti School of Telecom Technology and Management at IIT Delhi. His team of 15-20 faculty members and students will work on security, energy harvesting, Internet of Things (IoT) and massive multiple input multiple output (MIMO) technology.

**New Delhi:** The Department of Telecommunications (DoT) plans to finalise the roadmap on adoption of 5G technology by June, even as full 4G coverage across the country is expected by the end of the next financial year, a top official said.

"By June this year, I hope we will be able to unveil India's 5G roadmap," telecom secretary Aruna Sundararajan said at an industry event on Friday. "In 5G, we are looking to do a lot of pilots. So when 5G hits, India will be at the leading edge of technology as well as use cases," she said, adding that the ministry had set up a high-level committee to work on a 5G roadmap so that India gets access to the next generation technology when it is available for commercial roll-out globally. Globally, standards around 5G are expected to be finalised this year.

"I expect that by the end of the next financial year, we will have pan-India 4G coverage, barring a few pockets," she said.

Our Bureau

## Centre expects to finalise 5G service road map by June

PRESS TRUST OF INDIA  
New Delhi, February 16

THE DEPARTMENT OF telecom expects to finalise a roadmap for 5G services by June this year, a top official said. "By June this year, I hope we will be able to unveil India's 5G roadmap," telecom secretary Aruna Sundararajan said at an Assocham event on Friday.

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edge of technology as well as used cases," Sundararajan said.

She said the DoT is in the process of framing new numbering scheme for SIMs that will be used for machine-to-machine (M2M) communications. The 5G services is consider to focus more around M2M services like use sensors in cars and other vehicles to prevent accident, smart homes and smart cities, etc.

"Just as last 18-24 months have been period of rapid and radical changes. In the next 12 months we will see large number of these capabilities being built in India. In the coming months we will begin to see actual roll out of M2M," Sundararajan said

## Roadmap for 5G by end of June: Tele secy

**STATESMAN NEWS SERVICE**  
NEW DELHI, 16 FEBRUARY

The roadmap for 5G (fifth generation) in the telecom sector will be unveiled by June end, said a top official of the Department of Telecommunications (DoT) here today.

Inaugurating a conference on Connected Devices-Connected World organised by Assocham, telecom secretary Aruna Sundararajan said DoT has received good inputs on 5G in the NTP 2018.

"The draft of the NTP 2018 is in final stages and will be put in public soon," Ms Sundararajan, chairperson, Telecom Commission and secretary, DoT, said, adding that the networks were not only accelerating the roll-out of 4G but were getting

ready for 5G.

"I expect that by the end of the next financial year, we will have pan India 4G coverage barring a few pockets. The right regulatory framework is the key to create an enabling environment for connected device," she said.

On the issue of call drops, the secretary said the Telecom Regulatory Authority of India (Trai) has brought a new regulatory regime under which there are stringent norms for call drops that need to be followed by the telecom companies.

Regarding in-flight connectivity, Ms Sundararajan said: "We are moving towards getting approvals for in-flight connectivity but cannot give any time frame for the final approval. However, the discussions are on right track."

## Govt expects to finalise 5G service roadmap by Jun

PNS ■ NEW DELHI

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## 5G road map to be ready by June

AGENCIES

New Delhi

Telecom Secretary Aruna Sundararajan on Friday said the Department of Telecommunications (DoT) will unveil the roadmap for 5G or fifth-generation by the end of June.

"The DoT has received good inputs on 5G in the new telecom policy or NTP 2018 which is yet to be unveiled. The draft of the NTP 2018 is in final stages and will be put in public soon," Sundararajan, chairperson, Telecom Commission and Secretary, DoT, said.

Sundararajan said the networks were not only accelerating the roll-out of the 4G but were getting ready for 5G. "I expect that by the end of the next financial year, we will have pan India 4G coverage barring a few pockets," she added.

