GOVERNMENT OF INDIA
MINISTRY OF SCIENCE AND TECHNOLOGY
DEPARTMENT OF SCIENCE AND TECHNOLOGY
LOK SABHA
UNSTARRED QUESTION NO.3442
TO BE ANSWERED ON 22/3/2017

NATIONAL SUPERCOMPUTING MISSION

3442. DR. HEENA VIJAYKUMAR GAVIT:
SHRIMATI SUPRIYA SULE:
SHRI MOHITE PATIL VIJAYSINH SHANKARRAO:
DR. J. JAYAVARDHAN:
KUNWAR BHARATENDRA:
SHRI DHANANJAY MAHADIK:

Will the Minister of SCIENCE AND TECHNOLOGY विज्ञान और प्रौद्योगिकी मंत्री **be pleased to state:**

(a) the progress made by the National Supercomputing Mission including its first supercomputer proposed to be built by 2017;

(b) whether the Government is collaborating with private entities on applications for the supercomputer and if so, the details thereof;

(c) whether the Government has taken any measures to develop High Performance Computing (HPC) and the human resource for running these applications and if so, the details thereof; and

(d) whether the Government proposes to connect all academic and R&D Institutions across the country to the national supercomputing grid and if so, the details thereof and the steps taken in this direction?

ANSWER

MINISTER OF STATE IN THE MINISTRY OF SCIENCE AND TECHNOLOGY AND MINISTER OF STATE IN THE MINISTRY OF EARTH SCIENCES
(SHRI.Y. S. CHOWDARY)
विज्ञान और प्रौद्योगिकी मंत्रालय में राज्य मंत्री और पृथ्वी विज्ञान मंत्रालय में राज्य मंत्री

(श्री वाई. एस. चौधरी)

(a) Madam, under the National Supercomputing Mission (NSM), it is planned to build three supercomputers of varying capacity during the year 2017. The architecture of these three systems and its locations for installation have also been identified and the implementing agencies namely Centre for Development of Advanced Computing (C-DAC), Pune and Indian Institute of Science (IISc), Bengaluru have already initiated the process for site preparation.

(b) Under the NSM, an Expert Group for HPC Applications Development has been formed, which has identified various application areas of importance to the Nation which includes Drug Development Platform; Climate, Weather & Disaster Predictions; Predictive & Personalized medicine; Geophysical Applications etc. The NSM envisages collaboration with researchers from various Universities, Institutions and Government National laboratories. Interactions with private entities are also being explored by the NSM-Expert Group.

(c) Yes Madam. HPC-aware human resource development is a key deliverable of this Mission. The NSM-Expert Group on Human Resource Development is working towards developing a framework including the course curriculum for running HPC courses and programs at various levels including undergraduate, postgraduate diploma and postgraduate levels. C-DAC has already started a 6-month PG Diploma course, the first batch of which graduated in February 2017. The Expert Group is working with Department of Higher Education in introducing HPC related courses in undergraduate and post-graduate levels, from next academic session.

(d) Yes Madam. The Supercomputing facilities that are proposed to be set up across the country will be provided connectivity to National Knowledge Network (NKN). National Knowledge Network (NKN) is inter-connecting all knowledge and research institutions in the country through a high bandwidth network. Access will be available for academic and R&D institutions to use these supercomputing facilities over National Supercomputing Grid. The Supercomputing Grid will be used for enabling large-scale, reliable and efficient sharing of heterogeneous computing resources spread across the supercomputing facilities. Each of the supercomputing facilities is proposed to be connected to the national supercomputing grid immediately on setup.

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