GOVERNMENT OF INDIA
MINISTRY OF HUMAN RESOURCE DEVELOPMENT
DEPARTMENT OF HIGHER EDUCATION

LOK SABHA
UNSTARRED QUESTION NO. 1215
TO BE ANSWERED ON 07.12.2015

Augmentation of Research

1215. SHRI D.K. SURESH:

Will the Minister of **HUMAN RESOURCE DEVELOPMENT** be pleased to state?

(a) whether the Government has taken any steps to identify the needs of the country in terms of its research and technology requirements in various fields including health and environment;
(b) if so, the details thereof;
(c) whether the Government has made any effort for augmentation of research in the said fields;
(d) if so, the details thereof;
(e) whether the Government has seen any progress so far in this regard; and
(f) if so, the details thereof?

ANSWER

MINISTER OF HUMAN RESOURCE DEVELOPMENT

(SMT. SMRITI ZUBIN IRANI)

(a) to (f) Yes Madam. Government has launched a new initiative named 'IMPacting Research Innovation & technology (IMPRINT)' laying down a roadmap for research to solve socially relevant engineering and technology challenges in ten technology domains, each of which is coordinated by a premier institution as given below:

1. Health care: IIT Kharagpur
2. Computer Science and ICT: IIT Kharagpur
3. Advance Materials: IIT Kanpur
4. Water Resources and River systems: IIT Kanpur
5. Sustainable Urban Design: IIT Roorkee
6. Defense: IIT Madras
7. Manufacturing: IIT Madras
8. Nano-technology Hardware: IIT Bombay
9. Environmental Science and Climate Change: IISc, Bangalore
10. Energy Security: IIT Bombay

Efforts are being made to allocate resources to fund research in collaboration with the relevant departments of Government of India. The progress in this regard can be assessed over the next 5 years.

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ANNEXURE AS REFERRED TO IN REPLY TO PART (a) to (f) OF THE LOK SABHA UNSTARRED QUESTION NO. 1215 FOR 7.12.2015 ASKED BY HON'BLE MEMBERs OF PARLIAMENT, SHRI D.K. SURESH regarding Augmentation of Research

CENTRES OF EXCELLENCE UNDER TECHNICAL EDUCATION QUALITY IMPROVEMENT PROGRAMME (TEQIP)

S. No.	Name of the State	Name of the Institution	Name of the Centre of Excellence
1	Andhra Pradesh	Andhra University College of Engineering, Vishakhapatnam	Challenges of Nano-Technology for 21st century generation - Indian perspectives in global scenario
2		SVU College of Engineering, Tirupati	Atmospheric Remote Sensing and Advanced Signal Processing
3	Jharkhand	Birla Institute of Technology, Mesra, Ranchi	Bio-resources and Bio-prospecting
4	Karnataka	BMS College of Engineering, Bangalore	Advanced Materials Research
5		RV College of Engineering, Bangalore	Macroelectronics
6		PES Institute of Technology, Bangalore	Knowledge Analytics & Ontological Engineering (KAnOE)
7		Siddhaganga Institute of Technology, Tumkur	Applied Research and Nano Technology
8	Maharashtra	College of Engineering, Pune	Signal and Image Processing
9			Smart Renewable Energy Systems
10		Shri Guru GobindSinghji Institute of Engineering & Technology, Nanded	Signal and Image Processing
11		Institute of Chemical Technology, Mumbai	Process Intensification for process industries
12		VeermataJijabai Technology Institute, Mumbai	Complex and Nonlinear Dynamical Systems
13	Punjab	Thapar University, Patiala	Environment & Energy Management
14	Tamil Nadu	Govt. College of Technology, Coimbatore	Alternate Energy Research
15			Environmental Studies
16	Telangana	JNTU College of Engineering, Hyderabad	Disaster Management
17		Osmania University College of Technology, Hyderabad	Intensification of Chemical and Bio-processes
18	Uttarakhand	College of Technology - GB Pant University of Agriculture & Technology, Pantnagar,	Energy Studies in Industries and Agro Systems of Uttarakhand (Energy Management)
19	Uttar Pradesh	Harcourt Butler Technological Institute, Kanpur	Applied Research, training & education in Lipid Science
20	West Bengal	Faculty of Engineering and Technology - Jadavpur University, Jadavpur	Phase Transformation and Product Characterization
21		University College of Technology-University of Calcutta	Systems Biology and Bio Medical Engg.

22	UT Chandigarh	PEC University of Technology, Chandigarh	Industrial and Product Design SPC
23	CFIs	MANIT Bhopal	Geo-informatics (Remote Sensing, GPS & GIS)
24		NIT Durgapur	Advanced Materials
25		VNIT Nagpur	Combedded Systems:hybridization of communications and Embedded Systems
26		NIT Rourkela	Practical Renewable Energy System
27			Orthopaedic Tissue Engg& Rehabilitation
28		SVNIT Surat	Water Resources and Flood Management
29		NIT Warangal	Sustainable Energy Studies
30		Indian Institute of Engineering and Technology, Shibpur, Howrah	Micro structurally Designed Advanced Materials Development

CENTRES OF EXCELLENCE UNDER FRONTIER AREAS OF SCIENCE AND TECHNOLOGY (FAST)

S. No.	Name of the State	Name of the Institution	Name of the Centre of Excellence
1	Assam	Indian Institute of Technology, Guwahati	Advanced Molecules and Materials
2		Tezpur University, Napam, Tezpur, Sonitpur	Machine Learning Research and Big Data Analysis (MLRBDA)
3	Delhi	Indian Institute of Technology, New Delhi	Nanoscale Devices & Systems
4		TERI University, Vasant Kunj, New Delhi	Energy Storage
5	Jharkhand	Central University of Jharkhand, Ranchi	Green & Efficient Energy Technologies (GEET)
6		Indian School of Mines, Dhanbad	Renewable Energy
7	Karnataka	Indian Institute of Science, Bangalore	Biomolecular Interaction Studies
8		National Aerospace Laboratories, Bangalore	Development of 3 dimensional composite concurred structures using Tufting technology
9		National Institute of Technology, Surathkal	Renewable Energy Integrated Smart Grid Technologies: Energy
10	Kerala	National Institute of Technology, Calicut	Transportation Research
11		Department of Computational Biology & Bioinformatics, University of Kerala, Karyavattom Campus, Thiruvananthapuram	Computer Aided Drug Discovery
12		Indian Institute of Science Education and Research, Thiruvanathapuram	Computation, Modelling & Stimulations
13	Madhya Pradesh	Indian Institute of Science Education and Research, Bhopal	Centre for Research on Environment and Sustainable Technologies (CREST): Clean Environment (air, water, soil) and sustainable technologies
14	Maharashtra	Indian Institute of Technology, Bombay	Urban Science and Engineering
15		Indian Institute of Science Education and Research, Pune	Research in Energy and Sustainable Materials
16	Odisha	National Institute of Technology, Rourkela	Tissue Engg
17		Indian Institute of Technology, Bhubneshwar	Novel Energy Materials (NEM)
18	Punjab	Indian Institute of Science Education and Research, Mohali	Protein Science, Design & Engineering
19	Rajasthan	Banasthali University, Banasthali Vidyapith	Water and Energy

20	Tamil Nadu	Indian Institute of Technology, Madras	Non-intrusive Diagnostics
21		National Institute of Technology, Tiruchirapalli	Transportation Engineering
22		Amrita Vishwavidyapeetham University, Coimbatore	Advanced Material & Green Technologies
23		Coimbatore Institute of Technology, Coimbatore	Manufacturing Science
24		Anna University, Chennai	Bio - medical Applications
25		Centre of Advanced Study in Marine Biology, Annamalai University, Tamil Nadu	Energy & Environment
26		Thiagararjar College, Madurai	Bio-resource Management
27		Sathyabama University, Rajiv Gandhi Salai,Chennai	Energy Research
28	Tamil Nadu	Tamil Nadu Agriculture University, Coimbatore	Microbes to Feed the World :Plant – Microbe Interactions to boost Agricultural Production
29	Telangana	International Institute of information Technology, Hyderabad	Signals Processing
30		Indian Institute of Technology, Hyderabad	Sustainable Urban Development
31	Uttar Pradesh	Sanjay Gandhi Post Graduate Institute of Medical Science, Lucknow	Bio-medical Science & Modern Biology
32		Indian Institute of Technology, Kanpur	Advanced Computer Research
33		Indian Institute of Technology, (Banaras Hindu University) Varanasi	Energy and Resources Development
34	West Bengal	Indian Institute of Science Education and Research, Kolkata	Computational Space Science
35		Indian Institute of Technology, Kharagpur	E-Business
36		West Bengal University of Technology, Salt Lake, Kolkata	Environment Technology and Management: Water treatment for clean and green environment