GOVERNMENT OF INDIA
MINISTRY OF SCIENCE AND TECHNOLOGY
DEPARTMENT OF SCIENCE AND TECHNOLOGY
RAJYA SABHA
UNSTARRED QUESTION No. 2371
ANSWERED ON 20/03/2025

ESTABLISHMENT OF RESEARCH INSTITUTIONS AND PROMOTION OF SCIENTIFIC INNOVATION IN ODISHA

2371 SHRI SUJEET KUMAR:

Will the Minister of SCIENCE AND TECHNOLOGY be pleased to state:

(a) whether the Ministry has any plans to establish new research institutions, innovation hubs, or technology parks in Odisha to strengthen scientific research and technological advancements;

(b) if so, the details thereof, including proposed locations, focus areas, and timelines for implementation;

(c) if not, whether the Ministry is considering any alternative initiatives to promote scientific research, innovation, and technology development in Odisha?

ANSWER

MINISTER OF STATE (INDEPENDENT CHARGE) FOR THE MINISTRY OF SCIENCE AND TECHNOLOGY & EARTH SCIENCES
(DR. JITENDRA SINGH)

(a) to (b): The Ministry has already established several Research Institutions, Innovation Hubs and Technology Parks in Odisha to strengthen scientific research and technological advancements. The details are given in Annexure – I

(c) Not applicable in view of (a) and (b) above.

ANNEXURE – I

1. Department of Biotechnology (DBT)

Institute of Life Sciences (ILS), Bhubaneshwar, an autonomous research institution established by DBT carries out high-quality multidisciplinary research in the field of life sciences. ILS has core strength in four areas (a) Infectious Diseases, (b) Cancer Biology, (c) Genetic & Autoimmune Disorders, and (d) Plant and Microbial Biotechnology. ILS uses modern biology techniques to acquire insights at cellular and molecular levels in pathogen biology, immune-regulation and inflammation, cancer biology, and plant biotechnology for the overall development and betterment of human health, longevity, agriculture, and the environment. ILS undertakes cutting-edge research using state-of-the-art technologies in the fields of vector-borne diseases such as malaria and filaria, viral infections, cancer biology, allergy and auto-immune disorders, genetic disorders, and agricultural productivity. The Institute also focuses on generating Human Resources by creating trained scientific personnel in the area of modern biosciences and biotechnology research.

The Department is also implementing 'Biotechnology Research Innovation and Entrepreneurship Development (Bio- RIDE)' scheme in the country, including the State of Odisha to foster innovation, promote bio-entrepreneurship, and strengthen India's position as a global leader in biomanufacturing and biotechnology. The scheme aims at harnessing the potential of bio-innovation to tackle national and global challenges such as healthcare, agriculture, environmental sustainability, and clean energy through its 3 components i.e. (i) Biotechnology Research and Development (R&D); (ii) Industrial & Entrepreneurship Development (I&ED) and (iii) Biomanufacturing and Biofoundry.

2. Council of Scientific & Industrial Research (CSIR)

CSIR-Institute of Minerals and Materials Technology (IMMT), Bhubaneswar established by CSIR conducts basic scientific research and technology development in a wide range of subjects to address the R&D problems of mining, mineral and metals industries and ensure their sustainable development. For the last one decade, the main thrust of R&D at CSIR-IMMT has been to empower Indian industries to meet the challenges of globalization by providing advanced and zero waste process know-how and consultancy services for commercial exploitation of natural resources through the public-private-partnership (PPP) approach. CSIR-IMMT also carved out a niche in processing of advanced materials for greater value addition and working on resource use efficiency of critical raw materials.

- *Common Research and Technology Development Hub (CRTDH)* at CSIR-IMMT has been established in 2019 to nurture and promote innovations in MSMEs and provide them R&D or knowledge-based support in the area of new materials and chemical processes. CRTDH has provided more than 4 number of technological solutions to agro and metallurgical/minerals industries and 10 know-hows related to fighting against COVID like sanitisers, liquid soap, disinfection kits etc. to around 14 MSMEs since its inception. CRTDH has trained more than 200 manpower, including agro entrepreneurs, self-help group leaders, artisans etc. Number of know-how/process/technology developed have been transferred to more than 20 MSMEs/MSEs. The CRTDH trained 30 Women Self Help Group Leaders on Agarbatti manufacturing using Charcoal technology from locally available Rice husk. These 30 leaders represent 1000 Groups

and eventually, 15000 women are currently working in Agarbatti manufacturing using rice husk Charcoal.

- *Innovative Technology Enabling Centre (InTEC)* has been established at CSIR-IMMT for translation of Innovative Technologies into successful business ventures through intervention of science & technology. InTEC has been recognized by Startup Odisha and supporting the startups in terms of mentoring, technical and intellectual support, analytical and instrumentation support and IPR.

3. Department of Science and Technology (DST)

DST, over the years had established Several Innovation Hubs, Technology Parks, Incubation Centres in Odisha to promote scientific research, technology development and innovation through various Schemes and Programmes. The details are given below

- *Four Science Technology and Innovation (STI) Hubs* were established in Koraput, Bolangir, Khurda and Ganjam districts of Odisha under the Tribal Sub Plan Scheme. These hubs focus on improving the livelihood systems of SC/ST communities by identifying weak and strong links, developing and delivering innovative technologies, and promoting social enterprises. Two more STI Hubs are proposed to be established during 2025-26 in Mayurbhanj district.

- *Rural Women Technology Parks* have been established in Sundergarh, Jagatsinghpur, Kandhmahal and Ganjan districts of Odisha State for providing technological interventions for alternative livelihood creation for ST Women under the Scheme Science and Technology for Women supported to Kalinga Institute of Industrial Technology, Bhubaneshwar.

- Under the National Quantum Mission, four Thematic Hubs (T-Hubs), in key technology verticals of Quantum Computing, Quantum Communication, Quantum Sensing & Metrology and Quantum Materials & Devices have been established. These Thematic Hubs consist of 14 Technical Groups, covering 17 states and 2 Union Territories, including Odisha. Indian Institute of Technology (IIT), Bhubaneswar is one of the member institutes under the Thematic Hub for Quantum Materials and Devices and National Institute of Science Education and Research (NISER), Bhubaneswar is one of the member institutes under the Thematic Hub for Quantum Computing.

- Under National Initiative for Developing and Harnessing Innovations (NIDHI), a NIDHI Centre of Excellence (CoE) has been established at Kalinga Institute of Industry Technology (KIIT), Bhubaneswar. 2 NIDHI TBIs at National Institute of Technology Rourkela (NIT-Rourkela) and CV Raman College of Engineering, Bhubaneshwar and 2 NIDHI iTBIs at Sophitorium Institute of Technology & Lifeskills, Bhubaneshwar and Sri Sri University, Cuttack have been established for promotion of innovation and entrepreneurship in the region.

- A Technology Enabling Centre (TEC) has been established at KIIT University, Bhubaneswar, Odisha to create an Ecosystem for Technology and to provide a platform to network researchers with other Institutes, National laboratories and Industry. The focus of Centre will be on providing an enabling eco system, process and support system for technology development, deployment and diffusion.

- More than 20 academic institutions/universities (including PG Colleges) located in the State of Odisha were supported under Fund for Improvement of S&T Infrastructure (FIST) scheme for augmenting basic infrastructural facilities for conducting quality research in basic and applied sciences.
- Kalinga Institute of Industrial Technology (KIIT-Deemed to be University), Bhubaneswar was supported during 2023-24 under the Promotion of University Research and Scientific Excellence (PURSE) Scheme to enhance R&D infrastructure and undertake mission-oriented research in various fields of S&T that align with national priorities.

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