

GOVERNMENT OF INDIA
DEPARTMENT OF ATOMIC ENERGY

LOK SABHA

UNSTARRED QUESTION NO-2549

ANSWERED ON- 07/08/2024

PROMOTION OF RESEARCH IN NUCLEAR SCIENCES

2549. SHRI B K PARTHASARATHI

Will the PRIME MINISTER be pleased to state:-

- (a) whether the Government is taking any measures to promote open research in the field of nuclear sciences;
- (b) if so, the details thereof and if not, the reasons therefor;
- (c) the details of the initiatives to enhance innovations in the domain of nuclear sciences;
- (d) whether any steps have been taken to facilitate international collaboration in the academic domain of nuclear sciences; and
- (e) if so, the details thereof and if not, the reasons therefor?

ANSWER

THE MINISTER OF STATE FOR PERSONNEL, PUBLIC GRIEVANCES & PENSIONS
AND PRIME MINISTER'S OFFICE (DR. JITENDRA SINGH)

(a) & (b) Yes.

The following measures have been taken by Department of Atomic Energy (DAE) for promoting open research in the field of nuclear sciences:

- Financial assistance is provided to universities, academic institutions and national laboratories to organize scientific events on topics of nuclear sciences.
- Every year a summer training programme is organized for scholars pursuing post-graduation in Physics and Chemistry.

- Homi Bhabha National Institute (HBNI), a deemed to be University of the DAE takes PhD students on a regular basis for carrying out doctoral research in different areas of nuclear sciences.
- National facilities like Free Electron Laser (FEL) facility and Synchrotron Radiation facility (Indus-I and Indus-2) are extended to researchers to enhance innovations in the area of nuclear sciences.
- A Global Centre has been established with a vision to promote nuclear energy partnership through collaborative research and training programs on topical subjects related to nuclear science & technology including its applications for the benefit of mankind.

(c) Numerous indigenous and spin-off technologies encompassing nuclear and non-nuclear sectors are transferred to industry/MSME/Start-ups for commercialization through Atal Incubation Centres (AICs) established at Bhabha Atomic Research Centre (BARC), Mumbai, Indira Gandhi Centre for Atomic Research (IGCAR), Kalpakkam, Raja Ramanna Centre for Advanced Technology (RRCAT), Indore constituent Research & Development (R&D) Units of the DAE and Institute for Plasma Research (IPR), Gandhinagar, an Aided Institution under DAE.

Gamma Chamber Facility at IGCAR is used for irradiation of seeds and plants by various universities as part of their research work.

State of the art equipment & facilities in the DAE Units are made available to the young researchers / students from various colleges & institutions.

Schools specializing in the following areas have been established:

- 1) Advanced Nuclear Energy System Studies.
- 2) Nuclear Security Studies.
- 3) Radiological Safety Studies.
- 4) Nuclear Material Characterization Studies.
- 5) Application of Radioisotopes and Radiation Technology in healthcare, agriculture and food.

(d) & (e) Yes.

Scientists / Engineers working in DAE, after completing PhD, are encouraged to pursue post-doctoral fellowship in reputed academic foreign institutes / university for advanced R&D. These scientists / engineers come back after completing post-doctoral fellowship in foreign academic institutes / universities & work further in those advanced R&D fields.

Till date, DAE has signed MoUs with 16 international partners including International Atomic Energy Agency (IAEA), USA, Russia, IAEA, France, UK & Northern Ireland, Bangladesh, Vietnam, Bulgaria, Malawi, Argentina, Uzbekistan, AFCONE, ASEAN, Peru, Ghana and Kazakhstan.

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