

**GOVERNMENT OF INDIA
MINISTRY OF SCIENCE AND TECHNOLOGY
DEPARTMENT OF SCIENCE AND TECHNOLOGY
LOK SABHA
UNSTARRED QUESTION No. 996
TO BE ANSWERED ON 8.2.2023**

INSPIRE SCHEME

996. SHRI Y.S. AVINASH REDDY:

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

- (a) whether the Government has been implementing the Innovation in Science Pursuit for Inspired Research (INSPIRE) Scheme in the State of Andhra Pradesh;
- (b) if so, the details thereof;
- (c) the steps being taken by the Government to inculcate the innovative potential of the students and encourage their scientific approach through this Scheme; and
- (d) the details of the other schemes being implemented along with this Scheme?

ANSWER

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

विज्ञान और प्रौद्योगिकी तथा पृथ्वी विज्ञान मंत्रालय के राज्य मंत्री (स्वतंत्र प्रभार)
(डॉ. जितेंद्र सिंह)

(a) Yes Sir. The Government has been implementing the Innovation in Science Pursuit for Inspired Research (INSPIRE) Scheme across the country including the State of Andhra Pradesh.

(b) “Innovation in Science Pursuit for Inspired Research (INSPIRE)” Scheme of Department of Science and Technology (DST), aims to attract meritorious youth to study basic and natural sciences at the college and university level and to pursue research careers in both basic and applied science areas including engineering, medicine, agriculture and veterinary sciences. The ultimate aim is to expand the R&D base of the country.

INSPIRE- MANAK (Million Minds Augmenting National Aspirations and Knowledge) targets young students in the age group of 10-15 years and studying in class VI to X. The nominations are sought from schools, by the Department, during specific period of the year, through online mode at E-Management of INSPIRE Award Scheme (E-MIAS) portal.

Under INSPIRE-MANAK, in a financial year, ten (10.0) lakh ideas are targeted from more than five (05) lakh middle and high schools across the country, out of which one (1.0) lakh ideas are shortlisted for an initial award of Rs. 10000 /- each, directly into the bank accounts of the students through Direct Benefit Transfer for preparation of project/model/showcasing of idea.

INSPIRE Internship aims at providing exposure to the top 1% students at Class X Board level by organizing Science Camps either during summer or winter and provide opportunity to them to interact with Science icons from India and abroad, including Nobel Laureates, to experience the joys of scientific pursuit. These science camps nourish the curiosity of students in science, help them to think out-of-the box and attract students at an early age of 16-17 years to choose science subjects for further studies.

Scholarship for Higher Education (SHE) aims to enhance the rate of attachment of talented youth to undertake higher education in science intensive programs by providing scholarships and mentoring through summer attachment with leading researchers. The scheme offers 12,000 Scholarships every year @ Rs 0.80 lakh per year for undertaking Bachelor and Masters level education in natural and basic sciences for the talented youth in the age group 17-22 years.

INSPIRE Fellowship is offered to 1000 students having secured 1st Rank in Basic & Applied Sciences including engineering, medicine, agriculture, veterinary at the University/ academic institute of national importance i.e. IITs, NITs, IISERs level examination as well as Inspire Scholars having secure 70% marks in aggregate at the MSc level who are eligible for admission to the PhD Program in any recognized university/ academic institutions in the country every year. The Fellowships are tenable for maximum 5 years (2 years as JRF and 3 years as SRF) or completion of PhD, whichever is earlier to pursue full-time Ph.D. program.

INSPIRE Faculty Fellowship provides opportunities to 100 post- doctoral researchers in the age group of 27-32 years for 5 years in both basic and applied sciences area including engineering, agriculture, veterinary and medicine every year. Aspirants having Ph.D. with consistent academic track record are considered on competitive basis.

(c) Government had taken initiative to inculcate innovative potential of the students by launching “INSPIRE MANAK” to attract young students (10-15 years) to promote creative thinking and foster a culture of innovation among them to pursue research as career. Students are further encouraged to adopt scientific approach through INSPIRE scheme with the next four opportunities throughout an individual’s academic and research career (16-32 years) on competitive basis. INSPIRE Internship (16-17 years)

opportunity is based on top 1% performance in matriculation and pursuing eleventh in Science stream, Scholarship For Higher Education (SHE) (17-22 years) opportunity is with top 1% performance at 12th Class in the respective state and central education boards of the country and interested to undertake Bachelor and Masters level education in natural and basic sciences, INSPIRE Fellowship (22-27 years) is provided based on 1st Rank in Basic & Applied Sciences including engineering, medicine, agriculture, veterinary at the University/ academic institute of national importance i.e. IITs, NITs, IISERs level examination as well as to INSPIRE Scholars who secure 70% marks in aggregate at the M.Sc. level and are eligible for admission to the PhD Program in any recognized university/ academic institutions in the country. INSPIRE Faculty Fellowship (27-32 years) provides opportunity for the post- doctoral research on competitive basis among the doctoral degree holders. At each level mentoring and guidance by experts in the domain area is provided to inculcate the innovative potential of the students and encourage their scientific approach through this Scheme.

(d) The details of the other schemes being implemented along with this Scheme are as follows:

Department of Science and Technology (DST) has launched a new Initiative “Research Exposure cum Training Programme for Students from North- Eastern States and UTs of Jammu and Kashmir and Ladakh” under the INSPIRE Program with special focus on training of the talented youth from the states of Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim, Tripura (North-Eastern States), UT’s of Jammu and Kashmir and Ladakh for pursuing research career in frontier areas of Science Technology and Innovation. This will help students from these areas and enable them to compete with their counterparts from other parts of the country. It will also support the “Samarth Bharat” or “Skill India” programme of the Government of India.

Since 1993, the DST has been organizing National Children’s Science Congress which aims to nurture the children, in the age group of 10-17 into the process of learning science by doing innovative projects. The children pick up innovative projects in the focal theme area and usually try to solve a community problem. The hands-on and research-based activities lead to development of interest in science.

The Initiative in Research and Innovation in Science (IRIS) in Science, Technology, Engineering and Mathematics (STEM), is a program which scouts for the students to do research-based projects in field of STEM education. The 20 best projects are awarded in National IRIS Fair and form Team India to represent the country in the Regeneron International Science and Engineering Fair (ISEF) held each year in the United States of America (USA).

Additionally, Homi Bhabha Centre for Science Education (Tata Institute of Fundamental Research) with support from the Department of Atomic Energy (DAE), Dept. of Science & Technology, Department of Space, Ministry of Education and Ministry of Earth Sciences, implements National Olympiad programmes in Mathematics, Physics, Chemistry, Biology, Astronomy, Earth Sciences, and Junior Science. The programme comprises of multi-level competitions for secondary and higher secondary level students, culminating in the participation of Indian teams in International Olympiads held annually in the respective subjects. The programme has been running successfully for more than 20 years with a total enrollment of nearly 350,000 students for the first level of the competitions every year. Indian students have consistently performed excellently at the international Olympiads, with a nearly 100% strike rate of medals, including a large number of the coveted gold medals.

Council of Scientific & Industrial Research (CSIR) has been running a programme "Doctoral and Postdoctoral Fellowships" under its Capacity Building and Human Resource Development Scheme. Under the scheme CSIR has been supporting about 9500 doctoral and postdoctoral research fellows across the country in about 750 R&D institutes, universities, Institutes of National Importance, and Colleges. The CSIR, under its "National Laboratories Scheme" has been implementing "Jigyasa (student-scientist connect) programme". The programme envisages opening up the national scientific facilities to school children, enabling CSIR scientific knowledgebase and facility to be utilized by school children to develop 'Scientific Temper' in the young minds. For this, CSIR has signed MoUs with Kendriya Vidyalaya Sangathan (KVS), NVS (Navodya Vidyalaya Samiti), Atal Innovation Mission of NITI Aayog, National Council of Science Museum (NCSM), Karnataka Science and Technology Academy (KSTA), and CDO Bulandshahr to further accelerate the Student-Scientist outreach program of CSIR. Taking forward CSIR's Jigyasa program to millions of school students, the Jigyasa-Virtual Lab concept has been formalized. The Virtual Lab platform, developed in partnership with MHRD/IITB, shall enhance the scientific temper amongst school children where the students will read, have fun and carry out experiments and materials which are presented by the CSIR scientists and other stakeholders. These will be based on the day to day needs, keeping informed on how science can be used in everyday life with the purpose of increasing the scientific curiosity and temper in an engaging way and thereby attracting the students towards the Virtual Lab. With these programme and interaction between students and scientists, enables students to think creatively and understand the basic science behind a concept.

ICAR-IARI, New Delhi is running courses on Agricultural Sciences and allied subjects. The students admitted for Ph.D; M.Sc./M.Tech; and B.Sc./B.Tech. degree programmes

(UG starting from academic session 2022-23) are currently availing fellowships under ICAR-JRF/SRF/IARI Fellowship, ICAR-PG Scholarship/IARI Fellowship; National Fellowship and Scholarship for Higher Education of ST Students - Scholarship (Formally Top-Class Education for Schedule Tribe Students) and Under-graduate programme has only started from this academic session i.e., 2022-23.

SERB Research Scientists (SRS) Scheme was initiated to provide a platform for the sustainment of research careers for INSPIRE faculty and Ramanujan Fellows for an additional period of two years. The amount of fellowship is Rs. 1,20,000 per month and in addition a research grant of Rs. 7.0 lakhs per annum and overhead charges are provided.

Department of Higher Education (DoHE) is implementing two Central Sector Scholarship Schemes under the umbrella scheme “Pradhan Mantri Uchchar Shiksha Protsahan (PM-USP) Yojana” namely (i) Central Sector Scheme of Scholarship for College and University Students: Scholarship is provided to students who are in top 20th percentile of successful candidates in class XII and having family income up to ₹ 4.5 lakh p.a. for pursuing higher studies to eligible meritorious students. 82,000 scholarships are available for award every year (41000 for boys and 41000 for girls). These have been divided amongst the State Education Boards based on the State’s population in the age group of 18-25 years. Amount of scholarship is ₹ 12,000/- p.a. for the first three years and ₹ 20,000/- p.a. for the fourth and fifth year, (ii) Special Scholarship Scheme for Jammu and Kashmir and Ladakh: The Special Scholarship Scheme for Jammu & Kashmir and Ladakh (SSS for J&K and Ladakh) aims at encouraging the youth from Jammu and Kashmir and Ladakh to take advantage of the educational institutions outside these UTs, which would provide them an opportunity, to interact with their counterparts from the rest of the country, thereby helping them become a part of the mainstream. Students of Jammu & Kashmir and Ladakh having family income of up to ₹ 8.0 lakh p.a. and having passed Class XII/Equivalent Examination from these UTs are eligible to apply under the scheme. Students who have secured admission outside these UTs either in allotted seats through centralized counselling as well as those students who have taken admission in Central Universities or Medical/Engineering Colleges based on Government conducted National level examination are eligible for award of scholarship. 5000 scholarships are provided every year (2070 for General Degree Courses, 2830 for Professional Courses and 100 for Medical Courses). Scholarship is provided towards tuition fee and maintenance allowance. The rate of scholarship towards tuition fee for General Degree courses is ₹ 30,000 p.a., for Professional courses ₹ 1.25 lakh p.a. and for Medical studies ₹ 3.0 lakh p.a. Fixed maintenance allowance of ₹ 1.0 lakh p.a. is provided to all students under the scheme.

Department of Biotechnology (DBT) is encouraging students by providing studentship under postgraduate teaching programme implemented in 70 institutions. Department is providing studentship (scholarship) to all selected students @ ₹ 5000/- p.m, for M.Sc., Biotechnology, ₹ 7500/- p.m. for M.Sc. Agriculture Biotechnology and ₹ 12000/- per month. for M.V.Sc./M.Tech Biotechnology students under these courses. DBT has implemented 70 postgraduate teaching courses in 62 universities and institutions across the country, offering general biotechnology courses and specialized courses such as medical, agricultural, marine, veterinary, industrial, food and pharmaceutical biotechnology, and human genetics. For encouraging the R&D activities, DBT is providing thesis grant of ₹ 50,000/- per student for in-house dissertation work of 6 months duration as an integral part of post graduate degree to ensure hands on training. Students are selected through the national level Graduate Aptitude Test-Biotechnology (GAT-B) examination for admission under DBT supported courses.

All India Council for Technical Education (AICTE) is implementing various scholarships schemes. (i) AICTE Post Graduate (PG) Scholarship Scheme: To ensure development of technical education in India, AICTE awards Post Graduate Scholarship to Graduate Aptitude Test in Engineering (GATE)/ Graduate Pharmacy Aptitude Test (GPAT) / Common Entrance Examination for Design (CEED) qualified students @ ₹ 12,400/- per month through its Post Graduate (PG) Scholarship Scheme for the duration of 2 years. PG Scholarship is awarded to students admitted in Master of Engineering, Master of Technology, Master of Architecture, Master of Design and Master of Pharmacy courses in AICTE approved Institutions and AICTE approved University/Departments; (ii) AICTE Pragati Scholarship Scheme for Girl Students started in 2014 to award scholarship of upto ₹ 50,000/- per annum to meritorious girl students to encourage them to pursue higher education. Scheme offers 10,000 scholarships per annum (5000 for Diploma and 5000 for Degree) to the students admitted in AICTE approved institution and are in 1st year of Degree/ Diploma level course or 2nd year of Degree/ Diploma level course through lateral entry. Maximum two girls per family and total income of the family < ₹ 8 lakh per annum (iii) AICTE Saksham Scholarship Scheme for Differently-Abled Students started in 2014 to award scholarship of up to ₹ 50, 000/- per annum to differently abled students to encourage them to pursue higher education. Scheme offers scholarship to the Differently-Abled Students admitted in AICTE approved institution in 1st year of Degree/ Diploma level course or 2nd year of Degree/ Diploma level course through lateral entry. Total income of the family < ₹ 8 lakh per annum and Disability is ≥ 40%.
