

GOVERNMENT OF INDIA
MINISTRY OF EDUCATION
DEPARTMENT OF HIGHER EDUCATION
RAJYA SABHA
UNSTARRED QUESTION NO-4181
ANSWERED ON-01/04/2026

Enrolment and retention of women students in STEM fields

4181 **Shri Rajinder Gupta:**

Will the Minister of *Education* be pleased to state:

- (a) the total number of women students enrolled in STEM fields in higher education, year-wise and State-wise/UT-wise during the last three years;
- (b) whether Government has assessed the dropout rate among women in STEM courses and, if so, the State-wise/UT-wise details thereof and primary reasons identified;
- (c) if not, whether Government proposes to undertake such an assessment;
- (d) the steps taken to address the dropout rate, including scholarships, mentorship and institutional support; and
- (e) the measures proposed to improve enrolment and course completion rates for women in STEM, including targets under NEP, 2020?

ANSWER

MINISTER OF STATE IN THE MINISTRY OF EDUCATION

(DR. SUKANTA MAJUMDAR)

(a): As per All India Survey on Higher Education (AISHE), State/UT-wise total number of women enrolled in Science, Technology, Engineering, Mathematics (STEM) fields in higher education from 2020-21 to 2022-23 (Provisional) is at https://www.education.gov.in/parl_ques. As per AISHE 2022–23, women constitute 43.4% of the total enrolment in STEM disciplines at the higher education level in the country which is one of the highest among other countries.

(b) to (e): In the Higher Education sector, students have multiple options and they choose and migrate from one course or programme or institute/university to another, as such there is no concept of drop out in higher education.

Education being in the Concurrent List, increasing participation of women in education is the responsibility of both the Central and State Governments. Various schemes/ projects/ programmes run by the Ministry have been aligned with the National Education Policy (NEP) 2020. NEP 2020 aims to ensure that no child loses opportunity to learn and excel because of the circumstances of birth or background. This policy aims at bridging the social category gaps in access, participation, and learning outcomes, including providing greater access to women.

The Central Government has taken various measures to promote higher education among the students across the nation including women, such as fee reductions, establishment of more institutes, scholarships, priority access to national level scholarships to aid students with poor financial backgrounds to pursue their education.

Union Budget 2026-27 has announced that in order to promote scientific culture via STEM education, one girls' hostel is to be established in every district. In order to promote high-end experiential scientific learning, setting up of 4 Telescope infrastructure facilities are also announced to promote Astrophysics and Astronomy.

With a view to improving female enrolment in the B.Tech Programmes in IITs, IIT Council in its 51st meeting decided to increase female enrolment from 8% in 2016 to 14% in 2018-19, 17% in 2019-20 and 20% in 2020-21 by creating supernumerary seats. Accordingly, the female enrolment in IITs for B. Tech. Programmes was achieved as 15.34% in 2018, 18% in 2019, 19.9% in 2020, 19.72% in 2021, 20.06% in 2022, 19.7% in 2023 and 19.75% in 2024.

Further, with a view to address the gender gap by providing additional support and opportunities for women to excel in their academic pursuits, the Government has approved the proposal to provide one additional year (6 years in total) PhD HTRA (Half-time Teaching/ Research Assistantship) for female PhD research scholars of IITs on justifiable reasons, in exceptional circumstances, on case-to-case basis, subject to certain provisions.

University Grants Commission (UGC) is implementing scholarship scheme “National Scholarship for Post Graduate Studies (NSPG)” to provide scholarship to students pursuing Post Graduate Programs. In this scheme there are total 10,000 slots. Out of these 10,000/- slots, 50% slots are earmarked for science (STEM) subjects and while preparing merit, 30% slots are earmarked for women. UGC is also providing fellowships to pursue Ph.D. in all disciplines including STEM education, under UGC NET-Junior Research Fellowship and Savitribai Jyoti Rao Phule Single Girl Child Fellowship.

All India Council for Technical Education (AICTE) is committed to increase participation of students, including girls in STEM fields. AICTE offers the following scholarships to increase participation of students:

- i. AICTE Pragati Scholarship Scheme for Women (Degree & Diploma);
- ii. AICTE Sarswati Scholarship Scheme for Girl Students (BBA, BCA & BMS Degree);
- iii. AICTE PG scholarship Scheme;
- iv. AICTE Saksham Scholarship Scheme (Degree & Diploma);
- v. AICTE Swanath Scholarship Scheme (Degree & Diploma);
- vi. AICTE Doctoral Fellowship (ADF);
- vii. AICTE Yashasvi (Young Achievers’ Scholarship and Holistic Academic Skills Venture Initiative) Scheme 2024;
- viii. AICTE Post-Doctoral Fellowship (PDF)

The Department of Science and Technology (DST) has undertaken a range of targeted measures to increase the women participation in STEM education and careers arising from personal or social responsibilities at various stages. These measures include the provision of scholarships, fellowships, and internships from the school level through to post-doctoral studies under schemes such as Vigyan Jyoti, WISE-Doctoral of Philosophy (PhD), WISE–Post Doctoral Fellowship (PDF), WISE-Intellectual Property Rights (IPR), and Women’s Instinct for Developing and Ushering in Scientific Heights & Innovation (WIDUSHI).

These initiatives aim to reduce financial barriers and encourage continued participation and career progression in STEM disciplines. In addition, enabling provisions such as hostel accommodation, career counselling, maternity benefits, structured mentoring, exposure visits, and interactions with role models have been incorporated to facilitate continuity in women's education and research, minimize attrition, and promote sustained engagement in STEM careers.

The Government is implementing a range of placement and career development initiatives to encourage and support women in STEM fields, with a particular focus on re-entry, research opportunities, leadership development and IPR training. The Department of Science and Technology (DST) is implementing a comprehensive scheme, Women in Science and Engineering–KIRAN (WISE-KIRAN), to promote the participation and retention of women in research and development (R&D) across science and technology (S&T) domains. The WISE-KIRAN scheme provides research opportunities for women scientists, especially those who have experienced career breaks, enabling them to pursue research in basic and applied sciences, address societal challenges, and receive specialized training in Intellectual Property Rights (IPR). Under this scheme, the WISE-IPR component offers one-year training programmes in IPR and its management for women scientists and technologists in the 25–45 age group, with the objective of developing a skilled cadre of women professionals proficient in IPR laws, protection, and management.

In addition, DST has recently initiated two new programs titled 'Samvaad' to provide experiential learning of students enrolled in Science, Technology, Engineering, Mathematics & Medicine (STEMM) courses in higher education institutions and Science and Technology Communication Tools to encourage the development and implementation of innovative communication tools to disseminate scientific knowledge in engaging manner. Overall, a multipronged approach involving communication, education and community engagement is being followed to inculcate scientific temper across the country.

BioCARE Fellowship programme of Department of Biotechnology (DBT) aims to enhance participation of women scientists in India towards research in Biotechnology and allied area. This endeavor of DBT is giving a strong foothold to women scientists into the scientific profession, to help them re-enter into the mainstream and to provide a launch pad for further forays into the field of science and technology.

Further, the Council of Scientific and Industrial Research (CSIR) launched ASPIRE (A Special Call for Research Grants for Women Scientists) in 2023 to promote women-led research and strengthen their career advancement across the country.
