

**GOVERNMENT OF INDIA  
MINISTRY OF EDUCATION  
DEPARTMENT OF HIGHER EDUCATION**

**LOK SABHA**

**UNSTARRED QUESTION No. 145  
TO BE ANSWERED ON 19.07.2021**

**STEM**

145. SHRIMATI APARAJITA SARANGI:

Will the Minister of EDUCATION be pleased to state:

- (a) the details of the number of STEM graduates over the last 3 years separately for male and female;
- (b) whether there are more men than women in STEM;
- (c) if so, the details thereof;
- (d) whether the Government has taken initiatives to increase the participation of women in STEM;
- (e) if so the details thereof and if not, the reasons therefor;
- (f) whether, on a global platform, India has more women in STEM than other developed countries;
- (g) if so, the details thereof;
- (h) whether the women who study STEM have been observed to discontinue pursuing STEM for higher education;
- (i) if so, the action taken thereon to incentivise continued education in STEM?

**ANSWER  
MINISTER OF EDUCATION  
(SHRI DHARMENDRA PRADHAN)**

- (a) As per All India Survey on Higher Education (AISHE), the number of Pass-outs/Out-turn in STEM at various levels (UG, PG, M.Phil & Ph.D) for last 3 years separately for male and female is as below:

<b>Year</b>	<b>Male</b>	<b>Female</b>	<b>Total</b>
AISHE 2017-18	1248056	1002707	2250763
AISHE 2018-19	1192611	1022747	2215358
AISHE 2019-20	1188900	1056095	2244995

- (b) Yes.

- (c) As per All India Survey on Higher Education (AISHE), 2019-20, the number of men enrolled in STEM are 53,52,258 as compared to the women enrolment of 40,71,533.
- (d) Yes.
- (e) Government under Department of Science and Technology has taken several steps to increase the participation of women in STEM for higher education. This includes implementation of women exclusive schemes like ‘Knowledge Involvement Research Advancement through Nurturing (KIRAN)’ to encourage women in the field of Science & Technology. The ‘Mobility’ programme has been introduced to address relocation issue of working Women Scientists. Further ‘Indo-US Fellowship for Women in STEMM’ (Science, Technology, Engineering, Mathematics & Medicine) was launched to provide opportunities to Indian Women Scientists, Engineers & Technologists to undertake international collaborative research in premier institutions in USA for durations of 3-6 months. The ‘Consolidation of University Research through Innovation and Excellence in Women Universities (CURIE)’ provides support to develop research infrastructure and state-of the art research facilities in women Universities and to help enhancing women’s participation in R&D activities in S&T domain. A new programme “Vigyan Jyoti” for meritorious girl students of Class 9 to 12 in order to increase participation of women in STEM (Science Technology Engineering and Mathematics), especially in the fields where women are underrepresented. ‘Gender Advancement for Transforming Institutions (GATI)’ has been started during 2019-20 which aims to transform institutions for more gender sensitive approach and inclusiveness with ultimate goal to improve the gender equity.
- (f) Yes.
- (g) As per the Data bank on Gender Statistics published by World Bank(<https://databank.worldbank.org/source/gender-statistics>) , the female share of graduates in STEM at tertiary (%) level for India and some other countries for last three(3) years is as below:

**Female share of graduate in STEM, tertiary (%)**

<b>Country</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>
United States	33.99	---	---
China	---	---	---
Japan	---	---	---
Germany	27.14	27.56	---
United Kingdom	38.10	---	---
<b>India</b>	42.72	43.93	42.73
France	31.81	---	---
Italy	39.52	---	---
Canada	31.43	---	---
Korea, Republic	26.36	25.22	---

- (h) The data on dropouts is not being collected and maintained at present in this Department as part of All India Survey on Higher Education. National Statistics Office has published data on total dropout rate in higher education (75<sup>th</sup> round: July, 2017 to June, 2018), but not exclusively for STEM education.

- (i) Department of Science and Technology has launched various schemes to incentivise continued education in STEM such as:
- A. The Innovation in Science Pursuit for Inspired Research (INSPIRE) Scheme to enhance rates of attachment of talented youth to undertake higher education in science intensive programmes by
    - a. Providing scholarships and mentorship through Scholarship for Higher Education (SHE) Programme for age-group 17-22 years.
    - b. Offering 1000 fellowships every year, for carrying out doctoral degree in both basic and applied sciences including engineering and medicine through INSPIRE Fellowship for age group 22-27 years.
    - c. Offering assured opportunity every year for 1000 post- doctoral researchers in the age group of 27-32 years, through contractual and tenure track positions for 5 years in both basic and applied sciences area under INSPIRE Faculty Scheme.
  - B. Women Scientists Scheme (WOS) of DST to provide opportunities to women scientists and technologists between the age group of 27-57 years who had break in their career due to family reasons and other social circumstances.

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