

Women in STEM

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Abstract:

Research provides powerful engine in developed countries for economic progress. It also plays vital role in building country's research base. To attain more success the professions of the future need to increase participatory accountability of women with technical skills. For such achievement women need to overcome their meager participation. Additional efforts taken must be dealt for consideration to women's interest in stereotype occupation such as leadership positions and untapped STEM (Science, technology, engineering and mathematics) fields. For such achievements programs targeted from school level girls to develop their self confidence will overcome the cultural contexts. In present context, barriers, strategies and provisions to promote women contribution in STEM are discussed in present.

Key words: Science, technology, Engineering, research.

Genesis of study:

Science career begins at the early stage soon after PhD and it is important for women to establish themselves during their early 30s. But this period coincides for most Indian women with marriage and family commitments. Breaks or temporary research positions of 3-5 years during this period do not provide the advantage of moving up the ladder at a later stage when family commitments take less time. Thus, as a compromise, a large number of qualified women scientists opt for undergraduate or school level teaching assignments, while others completely drop out of science (SESS report, 2017). International data during the past decade suggest that the number of women in most areas of science and engineering has continued to grow by leaps and bounds (Tower, 2006). The proportion of women university students has increased from 46% in 1985 to 56% in 2017. Kahn and Ginther in 2017 stated that gender equality in the workplace is far from being achieved and is especially acute in professions that tend to be male dominated, with a technological and mathematical component.

In India, despite the increasing number of women in higher education in science, the involvement of women as science leaders seems to be increasing. Women Principal Investigators (PIs) participation in research was 28% during 2018-19, as compared to 24% during 2016-17, according to the Directory of Extramural Research & Development (R&D) Project 2018-19 report released by the government recently.