‘The landscape of STEM has significantly transformed’

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How has the landscape of STEM (Science, Technology, Engineering, and Mathematics) transformed over the years?

The landscape has significantly transformed. In the initial days of my two-decade-long experience, the presence of women in STEM was not as pronounced. Now, statistics indicate that women comprise 27 per cent of the sector in 2023. Almost 43 per cent of the total graduates in STEM are now women.

How can educators inspire young girls’ interest in STEM and create inclusive learning environments?

The key lies in early exposure to the discipline’s concepts and fostering a passion for these subjects. Educators must create a supportive and inclusive learning environment. Research suggests that having a diverse leadership team in schools, with a strong female presence, can positively impact student outcomes. Today several corporates are partnering with education institutes to strengthen this scientific ecosystem and build scientific temperament at an early age. At Syngene we have been actively involved in several activities to encourage participation in STEM studies. These include hosting inter-school science quizzes which, in 2023, we hosted in 250 government schools across Bangalore, Mangalore, and Hyderabad. Young children hold their teachers in the highest regard. This admiration creates a unique opportunity to ignite a young girl’s curiosity about science.

How do mentorship programs contribute to nurturing the aspirations of young women in STEM fields?

Young graduates entering the workforce often grapple with misconceptions, anxieties, and uncertainties about their chosen paths. They may lack a clear understanding of career opportunities and the challenges they might encounter. This is where early-stage mentorship plays a pivotal role. By connecting young women with established professionals, we guide and support them as they embark on their journeys providing. Mentorship provides invaluable insights and

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helps women navigate through potential obstacles, besides exposing them to successful role models, breaking down barriers and demonstrating the enormous potential for achievement within STEM fields. At Syngene we also actively collaborate with the Research and Innovation Circle of Hyderabad (RICH) with which we have established a STEM scholarship program aimed at providing financial support, mentoring, and internship opportunities to women pursuing STEM subjects, particularly at tier 2 and 3 institutions.

What governmental policies and programs are in place to support women in STEM?

The Government of India’s STI Policy 2013 promotes gender parity, while schemes like WISE-KIRAN offer opportunities for women in science and engineering. Programs such as GATI and SERB-POWER address gender inequality and support women scientists through grants and fellowships. Vigyan Jyoti encourages STEM participation among high school girls,

especially in rural areas. It's vital to raise awareness about these programs to enhance their impact.

How can STEM education be made more engaging for young learners, especially girls?

Sparking a love for STEM requires making it relatable to their lives and the world around them. This can be achieved by showcasing how science, technology, engineering, and math are used to tackle real-world challenges faced by their communities and India as a whole. Imagine projects that address local issues like water purification, sustainable agriculture or finding a cure for a rare disease. Initiatives like Syngene's mobile science labs reaching rural areas are a fantastic example. Scientists, engineers, or doctors visiting schools and colleges provide invaluable role models. These interactions shatter stereotypes and prove, unequivocally, that a successful career in STEM is a thrilling possibility for any young girl in India.

How can we collectively empower women in STEM?

I firmly believe that 'Inspiring Inclusion' is the key to empowering women in these fields. This includes breaking down existing barriers; supportive policies from governments, such as funding for female-led research; fostering a supportive ecosystem; industries creating mentorship programs and networking opportunities for women in STEM; and educational institutions cultivating collaborative learning environments are some ways in which this can be done.

True inclusivity isn't about settling for less qualified women; it's about empowering them to reach their full potential. By dismantling biases, providing mentorship, and fostering an environment where women can thrive, we cultivate a leadership landscape that reflects the brilliance and strength they possess. When women are given equal access to the tools and support they need, their competence will naturally rise, ensuring the most qualified leaders, regardless of gender, rise to the top.