## **AWIN: Empowering Women and the Next Generation in STEM**

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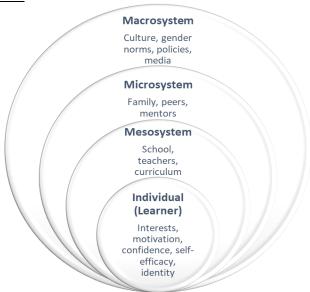
## Abstract

In recent years, Science, Technology, Engineering, and Mathematics (STEM) have become central to global economic growth, sustainability, and innovation. Women currently make up only  $\approx$ 22 % of the global STEM workforce, leaving a vast reservoir of talent under-used. Multiple intersecting factors such as individual, family, institutional, and societal, still limit the participation and progression of girls and women in STEM (Figure 1) [1, 2]. Nevertheless, women's perspectives are essential for advancing knowledge and shaping the future of science and technology.

Worldwide, female STEM leaders act as role models, mentors, and advocates, redefining what it means to work in science and opening doors for the next generation. In Albania and the Western Balkans, the number of women entering STEM is steadily rising, driven by educational initiatives that promote innovation, leadership, and equity. Among the most promising areas is nanotechnology, a highly interdisciplinary and rapidly evolving field with the potential to drive transformative change across healthcare, energy, and the environment. To strengthen this momentum, the Albanian Women in Nanotech (AWIN) network was founded. AWIN aims to bring together successful Albanian women and young female scientists, including those in the diaspora, Albania, Kosovo, and North Macedonia, to share experiences, foster collaboration, and confront structural barriers that restrict female participation in emerging technologies. With over 127 members (LinkedIn Group), AWIN organizes collaborative events and research-driven activities that connect national stakeholders with international experts. Through storytelling, data collection, and community building, the network highlights the impact of Albanian women in nanotechnology and inspires the next generation to shape science through innovation and inclusion.

## References

- [1] UNESCO, Book, "Cracking the code: girls' and women's education in science, technology, engineering and mathematics (STEM)", (2017), 83, <a href="https://doi.org/10.54675/QYHK2407">https://doi.org/10.54675/QYHK2407</a>, <a href="ISBN: 978-92-3-100233-5">ISBN: 978-92-3-100233-5</a>.
- [2] Tiffany Straza, UNESCO, Book, "Changing the equation: Securing STEM futures for women", (2024), 52, ISBN: 978-92-3-100704-0.



**Figure 1:** Ecological scheme of factors influencing girls' and women's participation, achievement and progression in STEM studies.

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