

Girls4STEM: Gender Diversity in STEM for a Sustainable Future

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Abstract

Science, Technology, Engineering, and Mathematics (STEM) are key disciplines towards tackling the challenges related to the Sustainable Development Goals. However, evidence shows that women are enrolling in these disciplines in a smaller percentage than men, especially in Engineering related fields. As stated by the United Nations Women section, increasing the number of women studying and working in STEM fields is fundamental towards achieving better solutions to the global challenges, since the potential for innovation is larger. In this paper, we present the Girls4STEM project, which started in 2019 at the Escola Tècnica Superior d'Enginyeria de la Universitat de València, Spain. This project works towards breaking the stereotypes linked to STEM fields, addressing both boys and girls aged from 6 to 18, but especially trying to open the range of career options for young girls through interaction with female STEM experts. The goal is to spark girls' interest in STEM disciplines from childhood, so that they become more self-confident in these areas. To achieve this goal, the project is built over three main actions: the Girls4STEM Family Talks, where students, families, and teachers participate; the Girls4STEM Professional Talks, where the target is a general audience; and the Initial Training Seminars for teachers. Short-term results are here presented, showing that aspects related to self-perception and perception from others (family, teachers) play a significant role. Moreover, these results also indicate that there may not be a general understanding of which disciplines are included in STEM.