

Supporting Women in STEM²D

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ABSTRACT

There are less women than men working in STEM (Science, Technology, Engineering and Mathematics). Globally, STEM intervention programmes have been implemented to address this inequality. One programme is WiSTEM²D from Johnson & Johnson (J&J). WiSTEM²D stands for Women in STEM, Manufacturing and Design. The advantages of programmes like WiSTEM²D are that they fuel the development of the female STEM²D talent pipeline by providing awards and sponsorship at critical points in educational experience and careers, in STEM disciplines. In Ireland the WiSTEM²D programme was first

introduced at UL in 2016. Since then, it has expanded to include other universities such as University College Cork (UCC), University of Galway, and Munster Technological University (MTU). In that time, it has supported more than 400 female students from STEM²D.

At the University of Limerick (UL), WiSTEM²D is open to female undergraduate students of STEM²D subjects entering their 2nd, 3rd, or 4th year of studies and is run in collaboration with the Lero, the SFI Research Centre for Software. It provides a range of initiatives including mentoring, site tours, workshops, and a bursary. The UL recipients work on STEM²D related research projects. The Lero team guides the students in working on their research projects. These research projects bridge a variety of STEM²D disciplines by bringing together female students from Science, Technology, Engineering, Mathematics, Manufacturing and Design to work together.

In 2022, the winning WiSTEM²D student team created a poster and a video. The project title was: How do females experience bias in

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education and what changes can we make to our primary and secondary education systems to promote a gender equal world. The video was also chosen to be showcased at the UL International Women's Day event. The project listed areas that classrooms can address such as: more subject choices in girls' schools, female role models, setup STEM centres, promote WiSTEM campaigns, female apprenticeships, industry mentors, defy gender stereotypes, TY (transition year) STEM programs, STEM women in history day, and women in industry speakers. Building on this project and on previous research we are currently working with this year's WiSTEM²D recipients to develop a student led mentorship programme devised by the WiSTEM²D recipients for secondary school students.

CCS CONCEPTS

• Social and professional topics • Professional topics • Computing Education • Computing Education Programs • Software engineering education

KEYWORDS

STEM, STEM²D, Students, WiSTEM²D

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