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Towards gender equality in engineering programs. A case study.

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Abstract

The low participation of women in STEM fields is considered a critical issue in our society. We analyzed the student population by gender of the school of engineering at Universidad Tecnológica de Bolívar. We found that the share of female first-time students shows a decreasing trend since 2015 and was only 24% in 2020. Gender gaps are wider in electrical, electronic, systems, mechanic, and mechatronic engineering. We also observed that females have lower access to engineering programs, especially in the last three years. The effects of the COVID-19 pandemic have been observed as a reduction of the share of enrolled students vs applicants. In order to increase the participation of women in the programs with higher gender gaps, we developed several activities in 2020 specially designed for secondary students with the participation of female instructors as role models. © 2022 IEEE.

Index Keywords

Education computing, Engineering education, Professional aspects; Case-studies, Critical issues, Electrical/Electronics, Electronics system, Engineering program, Gender equality, School of engineering, STEM fields, Student populations, Woman in STEM; Students

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