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DIVERSITY FOR A SUSTAINABLE SPACE FUTURE – OPPORTUNITIES AND CHALLENGES FOR
PROMOTING DIVERSITY THROUGH MENTORSHIP IN THE SPACE SECTOR

Abstract

As the global pandemic brought operations of multiple industries to a standstill, the space sector continues to expand in spite of recent lockdowns and restrictions. Since the pandemic commenced, we have witnessed the launch of UAE's Mars mission, the first manned commercial journey to the International Space Station, and the completion of China's BeiDou Global Navigation Satellite System. The pandemic has also accelerated technology uptake on an unprecedented scale, bringing offices to our homes, and in many regions, taking education fully online. On the one hand, the increasingly ubiquitous connectivity (often enabled in part or in full by space technology) has opened opportunities for us to connect globally, and to bring education to previously underserved communities during the pandemic, particularly girls in less developed regions. On the other, according to a report by UNESCO IESALC, gender inequality in higher education persists amidst the pandemic. Women remain underrepresented in STEM, and the figures are more alarming for senior positions. In particular, while we have witnessed increased journal paper submissions from both female and male scholars during the first period of the pandemic, the increase in submission of female scholars accelerated slower than their male counterparts. Such phenomena could be the result of a convergence of factors, including but not limited to increased responsibilities at home (due to the closure of schools and childcare facilities), possible digital inequality, and aspiration gap. There has never been a more pressing time to enhance diversity and representation in the space sector.

This presentation argues that Mentorship programme plays an important role in reducing some of the barriers in promoting diversity in the space and technology sector. Through employing connectivity and new educational technologies, it seeks to present a working manual of tools to encourage and enthuse the next generations of global women leaders in the space sector. Emphases will be placed on bringing more visibility to roles that might have been previously neglected (due to a focus on upstream aspects in the media), ensuring that contributions from other aspects of the space sector are given due recognition, for example, ground control elements, space data analytics, space education and policy, as well as the utilization of commercial and/or open source data for citizenship science.