

# Promoting women in tech



**In the spirit of promoting gender equality, Sony, in partnership with *Nature*, has launched the ‘Sony Women in Technology Award’ to recognize and celebrate the remarkable women spearheading advancements in STEM.**

**A**t a time when technological innovation underpins so much of economic growth and societal transformation, the lacklustre representation of women in science, technology, engineering and mathematics (STEM) continues to be a complex problem that could eventually stall overall progress in technological development. Statistical data show that the share of women working in tech remains disappointingly low, accounting for 28% of the current job market<sup>1</sup>. Moreover, the fraction of those in technical roles is even smaller and drops further still at leadership levels. The situation in academia is no different, particularly in physical sciences and applied research, in which only one in three researchers are women<sup>2</sup>. Unsurprisingly, owing to gender stereotypes, child-rearing and other family obligations, women are less likely to get tenure-track or permanent positions, are compensated less for their research and have lower success at grant applications than men, all of which result in a smaller body of work produced during their, oftentimes shorter, careers.

Despite strides toward gender equity in education, the divide still exists and it starts early. Already by middle school (ages 11 to 14), twice as many boys as girls consider careers in science and engineering as their first choice. In university, the proportion of women taking STEM-related subjects dwindles further<sup>3</sup>, and only 20% of engineering and computer science graduates are women<sup>4</sup>. In an ideal world, career opportunities and advancement should primarily rely on meritocratic processes; however, the question remains: what hinders further inclusion of women in STEM and what can be done to make a real difference? Clearly this enduring stagnation is not caused by women’s lack of interest or ability; instead, there are other considerations at play such as gender stereotypes that undermine maths aptitude for girls and identify STEM fields as predominantly masculine. Another obvious issue is fewer role models in popular culture and media that portray roles in STEM as attainable and desirable for women.

These systemic biases and cultural barriers are hard to combat. However, in addition to the early identification and support of female talent in STEM, popularizing science and technology among young girls by promoting the women that against all odds have demonstrated notable achievements and become highly successful in their STEM-related careers could be an important first step toward gender parity in tech.

**“The award specifically targets early- to mid-career researchers working at a research institution, or an affiliated university spinout, that identify as women...”**

At Nature Portfolio, we recognize the importance of supporting early- and mid-career female researchers that aspire to innovate and pioneer new research directions in their respective fields. For individuals trying to build their scientific reputation, it is crucial to maximize the visibility of their work, particularly as related to scientific publishing. The publication of primary research in a Nature Research Journal is sought after, as the journals provide a powerful and highly reputable platform for research dissemination. However, despite efforts to endorse female authors, strict editorial criteria combined with male-dominated supply of potential articles mean that reaching an equilibrium state or even reducing the underrepresentation of women in scientific publishing is slow. *Nature Reviews Electrical Engineering*, which commissions its content and is not sensitive to imbalances in the pool of submitted content, should fare better. Sadly, we’re not, and this is not owing to a lack of effort on the editorial part but because the state of the field is such that only, for example, 9% of electrical engineers in the USA are women<sup>5</sup>. Does this mean that we are powerless to change this status quo?

Beyond plunging into despair, it is important to remind ourselves that every change, no matter how incremental or slow, is always better than an ambitious failure. Since last year, our editorial team, along with our colleagues at *Nature*, have been involved in a formidable and timely initiative in partnership with Sony to create an [award for women in technology](#). The award specifically targets early- to mid-career researchers working at a research institution, or an affiliated university spinout, that identify as women, including transgender women and non-binary individuals. In the name of inclusivity, Sony proposed a very broad definition of technology. All applicants that are involved in creating “physical or digital tools and solutions, using mathematical and physical science to achieve practical goals” are encouraged to apply. Three winners will be identified and awarded a US\$250,000 prize to further advance their research undertakings. In addition, *Nature* will highlight their work by showcasing its impact and calling for global collaborations. We wish the best of luck to the applicants and look forward to the announcement of the winners.

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## References

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