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Biographical information:

Azimah Omar is a Senior Lecturer at the Department of Electrical Engineering, Universiti Malaya, specializing in solar photovoltaic technologies, solar cell materials, photocatalysts, and nanomaterials. She earned her PhD in Electrical & Electronics Engineering from Universiti Kebangsaan Malaysia and completed postdoctoral research at UMPEDAC, Universiti Malaya. A Senior Member of IEEE and a Counselor of the IEEE UM Student Branch, she is also a DAAD DIES ProGRANT Alumni since 2020. In December 2024, she joined the JST NEXUS Leadership Exchange Course with Kyoto University. Her current work explores quantum solar cell fabrication, solar panel degradation, solar-powered IoT applications, and air quality sensors.

Title: Empowering Women in Renewable Energy: Catalysts for Climate Change Solutions

Abstract

Women are increasingly shaping the future of solar and green technology industries, playing crucial roles in both technical and leadership capacities. While traditionally underrepresented, women now comprise up to 40% of the global solar workforce, notably in manufacturing, service, and technical roles. Their involvement promotes innovation in

renewable energy solutions, facilitates the broader adoption of clean technologies, and accelerates the transition away from fossil fuels. Women bring unique perspectives grounded in sustainability and community-focused approaches, enhancing the effectiveness and equity of climate mitigation and adaptation strategies. Empowering women through education, training, and inclusive workplace policies strengthens not only their careers but also the green technology sector's capacity to address climate change effectively. As climate challenges intensify, women's leadership in solar and other green technologies is indispensable for achieving global sustainability targets, fostering resilient energy systems, and driving socio-economic development aligned with climate justice.