SUSANA ARRECHEA

Latin America & the Caribbean

Chemical engineering and nanotechnology

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Dr. Susana Arrechea's research is focused on the potential industrial and environmental applications of materials such as nanoparticles, nanotubes, and graphene, which can be employed in creating more sustainable building materials, in water treatment, and in solar devices and other renewable energy solutions. In addition to contributing to the development of nanotechnology in Guatemala, she is also involved in improving solar electrification, connectivity, and digital and STEM literacy in schools in rural Guatemala, in partnership with New Sun Road and Microsoft.

> *"Winning the OWSD-Elsevier Foundation Award means showing to my baby daughter and to other young Guatemalans that scientific research can be done and recognized worldwide regardless of gender, origin of birth, or where you grew up. This award encourages me to keep doing research in Guatemala."*

Dr. Arrechea received her undergraduate degree in chemical engineering from the University of San Carlos of Guatemala (USAC), and worked there as a professor of physical chemistry before pursuing her master's degree and doctorate in nanoscience and nanotechnology at the University of Castilla-La Mancha, Spain. After graduating Cum Laude, she worked as a visiting researcher at the University of California-Berkeley as part of a Fulbright Nexus project on renewable energy, and later at the Center for Biotechnology Studies of the University of Valle de Guatemala.

Her projects have won grants from the National Secretariat of Science and Technology in Guatemala (Senacyt) and The World Academy of Sciences (TWAS), among others, and she has received awards including the 2017 "Guatemaltecos Ilustres" Award and a prize for young scientists granted by TWAS, Senacyt and the Academy of Medical, Physical and Natural Sciences of Guatemala. She has been profiled in national magazines, and in 2018 was named one of 50 Defiant Woman in Central America by the magazine *Estrategia y Negocios*. She is a member of the Academy of Medical, Physical and Natural Sciences of Guatemala, the International Network of Scientists of Guatemala, the Organization for Women in Science for the Developing World (OWSD), and of other scientific networks in nanotechnology and energy.