Discover Seminar Series – Nanotechnology: The Next TINY Thing!

Speaker Bio

Noushin Nasiri | Head of the NanoTech Laboratory | Macquarie University

Associate Professor Noushin Nasiri is the Head of the NanoTech Laboratory at the School of Engineering, Faculty of Science and Engineering, Macquarie University. She is a materials engineer, a nanotechnologist, an inventor who works on design and fabrication of nanostructured materials, miniaturised sensor technologies and wearable electronics.

Noushin invented Sun-Watch, a smartphone-connected, wearable device designed to alert users in real-time to UV radiation overexposure. This innovation greatly benefits both Australian and global communities by improving sun safety and awareness. Another example is the unconventional engineering design approach she used to radically change the way in which diabetic patients monitor their blood sugar levels. Her advanced breathalyser technology makes significant impact towards improving the quality of healthcare and reducing burdens on hospitals and pathology providers. She is the recipient of two prestigious fellowships, 2023 Cancer Institute NSW Early Career Fellowship and 2022 L'Oréal-UNESCO For Women in Science and has secured more than $2.4M of research funding in the past 4 years.

Noushin currently leads a team of 11 research personnel, including six PhD and four Master of Research students and one postdoctoral researcher, exploring novel techniques to enhance the synthesis of nanosensing technologies for health, energy, environmental and farming applications.

She is one of 2023 Eureka Prize for Outstanding Early Career Researcher finalists, and Australia's 2021-2022 Superstars of STEM and 2021 Asian-Australian Leadership Award 40 under 40: Most Influential Asian-Australians. She is also a recipient of 2021 Royal Society of New South Wales Warren Prize and 2019 NSW Young Tall Poppy Science Award. She is a passionate science communicator who has received considerable outside recognition for her research including TEDx Sydney Salon 2017, TEDx Macquarie University 2019 and TEDx Bligh Street 2020.

Abstract

Explore the cutting-edge realm of nanotechnology as we reveal its transformative impact on wearable technology and personalised medicine. In this talk, witness how nano-sized sensors are reshaping healthcare, offering unprecedented accuracy in monitoring vital signs and facilitating personalised treatments tailored to individual needs and genetic profiles. From wearable devices revolutionising health monitoring to sensors driving advancements in environmental and industrial safety, nanotechnology is unlocking a future where innovation knows no bounds. Join us on this captivating journey into the nanotech frontier and discover the endless possibilities that await in tomorrow's world.