February 14, 2012

Syed Anwar Hashsham, a professor in the Department of Civil and Environmental Engineering, was among 10 Michigan State University faculty members to receive a Distinguished Faculty Award at the annual MSU Awards Convocation today. The award recognizes a comprehensive and sustained record of scholarly excellence in research and/or creative activities, instruction, and outreach.

The award was presented to Hashsham by MSU President Lou Anna K. Simon.

The new honorees bring the number of faculty honored since the award was established in 1952 to 491. The Distinguished Faculty Award winners and 19 other recipients of all-university awards were recognized during a convocation at Wharton Center's Pasant Theatre.

Hashsham is internationally known for integrating genomics and microfluidics with consumer electronics to solve issues related to human health and environmental biotechnology. His research includes the development of DNA chips to fast test for the Superbug MRSA, the development of a hand-held platform for genetic analysis, and environmental biotechnology. His early work on how microbial communities behave when faced with stress is seminal for environmental engineers working to describe community behavior in quantitative terms.

Hashsham, who has a keen eye for students' educational needs, is an excellent teacher and inspires the best in his students. "Always available" is one of the standard comments made by students when describing him. As an adviser, he encourages students to be self-learners, innovators, and team players.

He collaborates with researchers from a number of disciplines--from ecology to infectious diseases to microfluidics and electronics. His work has been published in leading journals, including Applied and Environmental Microbiology, Biomedical Microdevices, Science and Environmental Science and Technology. Hashsham's work is considered novel and highly significant by his peers because it often has a direct application to environmental health for the poorest people on the planet.

Additionally, his recently developed and highly innovative device, Gene-Z, can be used to detect such markers of cancer as microRNAs in places where even the very basic diagnostic tools have yet to reach. Gene-Z can also be used to detect other disease-causing pathogens in humans, animals, and plants. This highly innovative device has attracted the attention and admiration of leaders of wireless-based health diagnostics systems throughout the world.

Hashsham has been a principal investigator or co-principal investigator on funded grants that total more than $13 million. His research projects are supported by NIH, EPA, DHS, NSF, and the Michigan Economic Development Corporation.

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