University Distinguished Professor Anil Jain named Fellow by The World Academy of Sciences

Anil Jain of Michigan State University has been named a Fellow of The World Academy of Sciences (TWAS) for a lifetime of perspectives and publications that have inspired students and researchers worldwide. He was one of 46 new fellows elected at the 28th TWAS general meeting in Trieste, Italy, Nov. 27-29.

A University Distinguished Professor of Computer Science and Engineering, Jain is being honored for his pioneering contributions to pattern recognition resulting in novel solutions for a rapidly evolving biometrics industry.

TWAS was founded 35 years ago to increase representation by women and researchers from the world's science- and technology-lagging countries. Jain said it is not typical to have a person from a developed nation be elected a fellow by the worldwide organization.

Jain was nominated for the honor by Tieniu Tan of the Chinese Academy of Sciences (CAS), where he is a professor of computer vision and pattern recognition, CAS deputy secretary-general and director general of the CAS Bureau of International Cooperation.

Tan called Jain an internationally renowned scholar and educator. “For the past 40 years, he has actively promoted the research topics of pattern recognition, computer vision and biometrics in developing nations through lectures, exchange programs, technical assistance and student and postdoc training.

“Very few people get elected every year from North America,” he added. “He most certainly deserves the recognition.”
Co-nominator Sankar Pal, distinguished scientist and former director of the Indian Statistical Institute in Kolkata, India, said Jain’s high quality pioneering research has had an enormous impact on statistical pattern recognition and computer vision.

“It is evident from a Google scholar h-index of 179, with total citation 185,000,” Pal said. “His IEEE-PAMI publications have made him a role model scientist to many of us and to young researchers in machine learning. All these extraordinary achievements made his election to TWAS Foreign Fellowship successful. I am happy to be a part of this endeavor.”

Jain is known around the world for his expertise in biometric recognition, computer vision, and fingerprint-matching technology.

“It has been my honor to work on projects in countries including India, China, and Indonesia,” Jain said. “I advised the world’s largest biometrics project, Aadhaar, in India that has enrolled more than 1 billion residents utilizing fingerprints and iris images for de-duplication in India’s social welfare system.”

Jain also worked on a prototype fingerprint system to recognize infants and toddlers for vaccination tracking in Benin and India. The World Food Program is utilizing the prototype child ID system in field trials in Somalia in an effort to eliminate fraud in food distribution to children.

He holds one of 17 inaugural appointments to the U.S. Forensic Science Standards Board, a newly developed organization dedicated to identifying and fostering standards and guidelines for the nation’s forensic science community.

Jain has previously served as a member of the Defense Science Board and the National Academies panels on Whither Biometrics and Improvised Explosive Devices.

His list of honors is extensive. In 2016, he was elected to the United States National Academy of Engineering (among engineering’s highest honors) and as a Foreign Fellow of the Indian National Academy of Engineering. In 2015, he was named a fellow of the National Academy of Inventors for innovative discovery and technology, significant impact on society, and support and enhancement of innovation.
Jain is also a fellow of the Institute of Electrical & Electronics Engineers (IEEE); Association of Computing Machinery (ACM); American Association for the Advancement of Science (AAAS); International Society for Optics and Photonics Society (SPIE); and International Association of Pattern Recognition (IAPR).

He is a recipient of the Guggenheim Fellowship, Humboldt Research Award, Fulbright Scholarship, King-Sun Fu Prize, and W. Wallace McDowell Award.

Jain is regularly invited to speak at national and internal forums, including the Third Annual ID4AFRICA Conference in Namibia in 2017; the 103rd Indian Science Congress, Information & Communication Science and Technology in India in 2016; the Royal Society meeting on United Kingdom forensics in London, 2015, and the keynote address at the Microsoft Computing in the 21st Century Conference in Beijing, 2014.

**TWAS**

TWAS is a global science academy based in Trieste, Italy. It was founded in 1983 by a distinguished group of scientists from the developing world who shared a belief that building strength in science and engineering could build the knowledge and skill to address the challenges of hunger, disease and poverty.

The newest 46 fellows increase the academy’s total to 1,267 Fellows from 104 countries – the most countries represented since TWAS’s creation. The academy elected its first fellows ever from Bolivia, the Lao People’s Democratic Republic, Libya, Nicaragua, and Zambia. In addition, members were elected from Iraq, Sudan, Turkey, and Uzbekistan. Thirteen of the new fellows are women, who now account for 13 percent of the total membership.

**Related Website:** [Communications contact: Patricia Mroczek](https://www.egr.msu.edu/news/2018/12/04/pioneering-pattern-recognition)

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