UC SANTA BARBARA

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# Technical Achievement

Recognized for contributions that have significantly promoted technical progress in their fields**,** UC Santa Barbara professors B.S. Manjunath and Yuan Xie have been selected to receive the Edward J. McCluskey Technical Achievement Award from the Institute of Electrical and Electronics Engineers (IEEE) Computer Society.

The annual recognition is given for outstanding and innovative contributions to the fields of computer and information science and engineering or computer technology, usually within the past fifteen years.

Manjunath and Xie are faculty members in the department of electrical and computer engineering.

“Congratulations to professors B.S. Manjunath and Yuan Xie for receiving this well-deserved, prestigious recognition and honor from their peers around the globe,” said Rod Alferness, dean of the College of Engineering. “We are proud that they have taken international leadership roles in the areas of image search, computer vision and technology-driven computer architecture.”

A fellow of IEEE, the Association for Computing Machinery (ACM) and the American Association for the Advancement of Science (AAAS), Xie was selected “for contributions to technology-driven computer architecture and to [developing] tools for their implementation and evaluation.”

Xie researches computer architecture, electronics design automation (EDA) and embedded-systems design. His application-driven projects include novel

architectures for artificial intelligence, and hardware acceleration for emerging applications such as bio-informatics, graphics analytics and robotics. He has authored four books and published more than 300 IEEE/ACM journal or conference papers in the areas of computer architecture, very large-scale integration (VLSI) design and EDA. He is the recipient of numerous honors and awards, including the National Science Foundation CAREER award, the IBM Faculty Award, a Semiconductor Research Corporation's (SRC) Inventor Recognition Award, and several best paper awards at IEEE/ACM conferences. He was inducted into the Hall of Fame by the three premier computer architecture conferences: the ACM/IEEE International Symposium on Computer Architecture; the IEEE/ACM International Symposium on Microarchitecture; and the IEEE International Symposium on High-Performance Computer Architecture.

Manjunath, a fellow of IEEE and ACM, received his award "for contributions to image search retrieval, and bio-image informatics." Manjunath's research focuses on image processing, computer vision and machine learning. He integrates human contextual information into the analysis of images and video, leading to bio-inspired methods for computer vision. Manjunath serves as the director of UCSB's Center for Bio-image Informatics, and of the Center for Multimodal Big Data Science and Healthcare. His research team developed BisQue, an advanced, open-sourced image database and analysis system for biological images. The cloud-based platform allows researchers to easily share, verify, test and collaborate on data by effectively leveraging cloud computing resources. An inventor on 24 patents, Manjunath has published more than 300 peer-reviewed articles in major journals and conferences.

With more than 50,000 members, the IEEE Computer Society is the world's largest member organization dedicated to computer science and technology.

Tags
Artificial Intelligence

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## About UC Santa Barbara

The University of California, Santa Barbara is a leading research institution that also provides a comprehensive liberal arts learning experience. Our academic community of faculty, students, and staff is characterized by a culture of interdisciplinary collaboration that is responsive to the needs of our multicultural and global society. All of this takes place within a living and learning environment like no other, as we

draw inspiration from the beauty and resources of our extraordinary location at the edge of the Pacific Ocean.