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A new leader: Professor Umesh Mishra to become dean of engineering

He’s a gallium nitride (GaN) expert with a passion for energy efficiency. He’s a distinguished professor and a pioneer in the tech industry. And now he’s head of one of the one of the highest-ranked public engineering schools in the nation.

Umesh Mishra, professor of electrical and computer engineering at UC Santa Barbara, has been named dean of the university’s College of Engineering, an appointment that comes with the Richard A. Auhll Professorship and Dean’s Chair of Engineering. He will step into his new role on July 1, 2023.

“We are confident that our College of Engineering will continue to thrive and achieve new heights under Dr. Mishra’s leadership,” said UCSB Chancellor Henry T. Yang.

“I am honored, humbled and very excited to be granted the opportunity to lead one the finest faculties, exceptional student bodies and outstanding staff in a college of engineering in the United States,” Mishra said. His appointment comes after a rigorous two-year, nationwide search, following the retirement of previous dean Rod Alferness in 2021. During that time, UCSB materials professor Tresa Pollock provided leadership and guidance to the College of Engineering as interim dean.

Mishra joined the UC Santa Barbara faculty in 1990, bringing with him years of research experience in both industry and academia. At UCSB he specialized in gallium nitride, a high-performance wide-bandgap semiconductor material that has and continues to answer the call for more energy efficient devices such as LEDs; highly efficient microwave power amplifiers for 5G connectivity and Department of Defense applications; and advanced power electronics that convert power with minimal energy waste such as solar inverters, server power supplies and electric vehicle chargers and inverters.

During his time at UCSB, Mishra has served as the chair of his department as well as associate dean of advancement for the College of Engineering. He has served as the director of numerous multidisciplinary university research initiative centers and co-founded the university's Solid State Lighting and Energy Electronics Center. In an effort to bring GaN into wider use, in 1996 Mishra co-founded Nitres (now part of Wolfspeed), the world's first start-up to commercialize RF GaN transistors and GaN LEDs. In 2007, he co-founded Transphorm to commercialize GaN- transistors for power conversion.

"During my tenure as dean I would like to amplify UCSB's advantages: its location, reputation, diversity and its culture of collaboration, while leveraging its perceived disadvantages — its small size and limited industrial eco-system — to its advantage through interdisciplinary hyperconnectivity and engagement," Mishra said. "We have to punch above our weight class, and we can only do it together, collaborating not only within the College of Engineering but across the campus and local community as a whole. We will be the best in the world in areas that we choose to focus on — areas with maximum social impact."

A member of the National Academy of Engineering, Mishra is also a fellow of the Institute of Electrical and Electronics Engineers (IEEE) and the National Academy of Inventors. He has been recognized for both his research and his teaching, with honors including IEEE's David Sarnoff Award and Jun-ichi Nishizawa Medal; the International Symposium on Compound Semiconductors' Quantum Device Award and Heinrich Welker Award; as well as the Distinguished Education Award from IEEE Microwave Theory and Technology Society, and the Faculty Research Lecturer recognition, the highest award to a faculty member from the UC Santa Barbara Academic Senate. Recognized as a highly cited researcher by the Institute for Scientific Information, Mishra has also supervised 76 Ph.D. students, mostly in the field of GaN materials and devices.

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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.