

UNIVERSITY OF CALIFORNIA, IRVINE

DEPARTMENT OF MATERIALS SCIENCE AND ENGINEERING

IS PROUD TO HOST A SEMINAR BY

***“INNOVATION IN MATERIALS SCIENCE: AN
INDUSTRIAL R&D PERSPECTIVE”***



LESLIE ANN MOMODA

**EXECUTIVE VICE PRESIDENT
HRL LABORATORIES, LLC
MALIBU, CA**

Thursday, January 15, 2026

2:00 PM - 3:20 PM

McDonnell Douglas Engineering Auditorium

Abstract: An industrial research and development laboratory in Southern California, HRL Laboratories, formerly the Hughes Research Laboratory, has a rich history of developing cutting edge technologies. HRL Laboratories now draws upon a unique leveraged business model to not only create differentiating technologies but to transition these advances to customer use. Drawing upon many years of experience in materials research and technology management at HRL, I will discuss some of our applied materials research development in areas such as architected materials, smart structural materials, additive materials and manufacturing. The motivations and the creative science behind these will areas be discussed as well as the technology insertion challenges and future opportunities in applied materials research will be presented.

Bio: Dr. Momoda is currently the Executive Vice President at HRL Laboratories, LLC in Malibu, CA. She leads the strategic planning, customer and LLC member interfaces for the laboratory. Prior to this assignment, she was the director for Sensors and Materials Laboratory where she lead the research and development of advanced structural, battery, architected and nano-materials and characterization as well as cutting edge microelectromechanical (MEMS) and infrared detectors. Dr. Momoda joined HRL Laboratories, LLC in 1990, working on the research and development of mixed metal oxide materials for electronic, optical and chemical sensor applications. She has 18 years of experience in the field of materials synthesis, processing, and characterization for electronic and structural applications. As a Research Department Manager, she was in charge of several major projects in the area of smart materials, materials for thermal management, gas sensing, fuel cell components and the modeling and prediction of materials reliability. Dr. Momoda received her B.S. degree in Chemical Engineering from the University of California, Los Angeles and M.S. and Ph.D. in Materials Science and Engineering from the University of California, Los Angeles. Dr. Momoda has authored or co-authored 18 published papers and has >15 issued patents. She serves on several national technical advisory boards as well as university advisory boards. She was elected to the National Academy of Engineering in 2025.

