



FAMU-FSU  
College of Engineering

DISTINGUISHED  
SEMINAR SERIES

**CRISTINA  
THOMAS**

**FRI, SEP 25  
11 AM  
IRCB 1030**

**NATIONAL ACADEMY OF ENGINEERING  
FELLOW, ACS, AIChE & ACS PMSE**  
RESEARCH & DEVELOPMENT SENIOR DIRECTOR, 3M  
PHD, UMASS AMHERST  
MBA, CARLSON SCHOOL OF MANAGEMENT

# Beyond the Laboratory: Engineering Products and Processes with Real- World Impact

Drawing on more than 35 years of industrial experience, this seminar will illustrate how fundamental engineering concepts have been used to design new materials, products, and manufacturing processes that create real-world impact. Examples will include products for transportation markets (pavement markings), industrial markets (mechanical fasteners), commercial and automotive markets (window films), and safety markets (connected safety solutions). These examples will demonstrate how key principles from polymer science and engineering shape product performance and successful scale-up. Using selected examples from my 28 issued patents, the presentation will touch on strategies for protecting and deploying innovation. The seminar will also highlight the critical role of cross-functional, high-performance teams in moving technologies from laboratory concepts to successful commercial products, as well as how innovative solutions require the courage to take calculated risks and the discipline to make sound engineering decisions. I will conclude by sharing my perspectives on careers in industrial R&D, the importance of leadership and lifelong learning, and the need to inspire and prepare the next generation of scientists and engineers to translate discovery into meaningful societal impact.

**DR. CRISTINA URDANETA THOMAS** is a chemical engineer, R&D leader, and STEM advocate with more than 35 years of experience across the oil, chemical, and technology industries. She earned her PhD in Chemical Engineering from UMass Amherst, specializing in polymers, and built her career at MARAVEN, IBM, and 3M, where she developed and commercialized technologies across diverse industrial and consumer markets and earned more than 28 patents. At 3M, she held senior leadership roles in strategy, commercialization, knowledge management, R&D digital transformation, and materials modeling. She recently earned an MBA from the University of Minnesota's Carlson School of Management. Cristina is a member of the National Academy of Engineering and a Fellow of ACS, AIChE, and ACS PMSE. Her contributions have been recognized through numerous honors, including the 2026 Distinguished Alumni Award from the College of Engineering at UMass-Amherst, the 2023 ACS Stanley C. Israel Regional Award for Advancing Diversity in the Chemical Sciences, and the 2019 AIChE Industry Leadership and 2019 Management Awards. A passionate advocate for STEM, chemical engineering, and lifelong learning, she remains actively engaged in professional societies, nonprofit organizations, education, and initiatives supporting the next generation of scientists and engineers.