COLLEGE OF ENGINEERING, COMPUTER SCIENCE, & TECHNOLOGY

Seminar in Interdisciplinary STEM Research

January 30 – Thursday, 3:05-4:20 PM

Location: E&T C-256

HOSTED BY CREST CREST-CATSUS AND SIKAND SITI CENTERS

Michael J. Thomas, M.A.

Chief Michael J. Thomas is an Associate Professor at California State University, Los Angeles, Department of Technology, College of Engineering, Computer Science & Technology. He earned a Bachelor of Science degree in Criminal Justice & Public Administration, from California State University of Los Angeles, and a Master of Arts degree in Human Resources Management from the University of Redlands, Redlands, California. He is a thirty-six-year veteran (Retired Battalion Chief), of the Los Angeles Fire Department. He served as Fire Prevention Section Commander for Public Safety, Construction Services, and as Liaison Officer to the Los Angeles County Metropolitan Transit Authority, as Metro Rail Project and First Responder training coordinator.

Wildland Urban Interface Firefighting in the City of Los Angeles

Abstract: In recent decades, wildland urban interface (WUI) firefighting has increasingly become a critical component of fire containment operations in areas across the United States. In just recent days, we have witnessed the devastation of such fires in the communities of Los Angeles City/County and outlining county communities. These wildland fires have exhibited and have the potential to travel and cause widespread destruction due to its "wind-driven" nature. For this seminar, a wind-driven fire would be an actual (or predicted) Santa Ana wind from the North/Northeast more than 20 mph.

A Santa Ana wind driven fire in the City of Los Angeles can spread rapidly into a 1 to 2-mile front traveling at 2 to 4 miles per hour. Along with this rapid spread prediction are many factors that will be reviewed in this seminar: longer wildfire seasons - a direct result of climate change, fuels, Weather and Risk Management, poor access and egress for civilians, firefighters, and law enforcement, a population of several hundred thousand residents living in older, hillside homes in a true intermix with chaparral and marginal vegetation clearance, steep terrain in canyons aligned with the Santa Ana winds, and historical fire runs, WUI Fire Suppression Techniques.

This seminar will illustrate how a fire in the Santa Monica, the San Gabriel, and the Santa Susana Mountain ranges can reach the Pacific Ocean from the 101 freeway or Mulholland Highway within hours.

Keywords: *Wildland Urban Interface (WUI), Wind-driven, Climate Change, Intermix/Interface, fuels, fuel moisture, weather, topography, relative humidity.*

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