

# *The 14th JUACEP Seminar*

第 14 回 名古屋大学日米協働教育プログラムセミナー

## **“In-Situ Nano-Mechanical Testing and Characterization of Metals and Ceramics”**

**Lecturer: Professor J.-M. Yang**

**Department of Materials Science and Engineering  
University of California  
Los Angeles, CA 90095**

**BIOGRAPHY:**

Associate Dean, Henry Samuel School of Engineering and Applied Science  
Professor, Department of Materials Science and Engineering, UCLA  
Ph.D. (1986) Applied Sciences - Metallurgy, University of Delaware, Delaware  
B.S. (1979) Materials Science and Engineering, National Tsing-Hua University, Taiwan

**HONORS AND AWARD:**

R&D 100 Award, 2010  
Best Paper Award, Japan Society of Mechanical Engineers, 2007  
Ford Foundation Award, 1994  
Alcoa Foundation Award, 1993  
Presidential Young Investigator Award, National Science Foundation, 1990-1995

**Date July 8, 2013 13:30~15:00**

**Venue ES032 (ES Building)**

Nanomechanical testing combined with real-time monitoring techniques enable the building of direct relationships between, for example, microstructure evolution and distinct characteristics of force vs. displacement. Such methods promise to improve our understanding of the origins of mechanical properties, and of how mechanical and other properties are coupled. We have conducted nano-mechanical testing of bulk and nanostructured metallic and ceramic materials under AFM, SEM and TEM. In this presentation, the in-situ observation of nanoscale deformation characteristics of a discontinuously reinforced titanium composite, a nanostructured copper, and a single crystal refractory carbide will be discussed

**Inquiry: JUACEP Office, Mech. Sci. Eng. (Ext. 2799)**