

# **Micromechanics of Advanced Structural Materials -Professor Toshio Mura Memorial Symposium-**

Date: June 7-8, 2012

Venue: Tsukuba International Congress Center

<http://www.epochal.or.jp/>

## **Scope of the Symposium**

Micromechanics, founded and developed by the late Prof. Toshio Mura at Northwestern University, U.S.A, has been an extremely useful tool to correlate nano- and/or micro-structures of structural materials to various mechanical properties, such as, plastic deformation, work hardening, dispersion strengthening, fracture, fatigue, *etc.*

The symposium will provide a forum for researchers engaged in theoretical and experimental investigations of the Micromechanics of materials. In particular, this symposium is intended to accelerate the further advancement of the Micromechanics by (1) reviewing the outcome of the Micromechanics, (2) pursuing potential research fields in advanced materials science and technology and (3) bridging across senior and young researchers in this field in order to promote Micromechanics approaches in the design and development of advanced structural materials as well as the researches on strength of materials.

In this symposium, experimental, theoretical and computational studies are sought in the areas of (but not limited to):

- (1) Micromechanics of Fracture and Fatigue of Materials
- (2) Theoretical and Experimental Analysis of Dislocations and Inclusions
- (3) Mechanical Characterization of Thin Films, Ceramics and Composite Materials
- (4) Inverse Problems and Non-destructive Evaluation of Materials Including Earthquake Prediction
- (5) Hybrid and Novel Mechanical Testing Methods

## **Keynote Speaker**

Prof. Tsutomu MORI (University of Manchester, Tokyo Institute of Technology)

## **Executive Committee**

Prof. Masaharu KATO (Tokyo Institute of Technology), Chairman

Prof. Tetsuo IWAKUMA (Tohoku University)

Prof. Masakazu KIMURA (Gunma National College of Technology)

Prof. Junichi KOIKE (Tohoku University)

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Prof. Yuji NAKASONE (Tokyo University of Science)

Prof. Susumu ONAKA (Tokyo Institute of Technology)

Dr. Koichi TSUCHIYA (National Institute for Materials Science)

Dr. Ikumu WATANABE (National Institute for Materials Science)

## **Contact**

Those who wants to attend the symposium should contact by May 31, 2012.:

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