



Smart Materials have been well recognized as materials that can respond to environmental stimuli with particular changes in some variables. Depending on changes in some external conditions, the smart materials can change their own properties (mechanical, electrical, appearance), structure, composition and/or functions. Mostly, these materials are embedded in systems whose inherent properties can be favourably changed to meet performance needs. By integrating sensors and actuators into structures, it enables real-time monitoring of structural responses within large-scale infrastructures that may have potential damages, for example, from fatigue cracks, degradation of structural connections, or bearing wear in rotating machinery. Since the last decade, an increasing interest in the development of miniaturized smart structures and systems, particularly on micro and nano electromechanical systems (MEMs and NEMs), and integrated biosensor systems has evolved a new page in the science and engineering field. This evolution establishes a need of integrating technologies from different disciplines to provide structural health monitoring for materials, systems, devices and structures at micro-scale level to ensure their integrity. Multifunctional materials systems are capable of performing multiple "primary" functions simultaneously or sequentially in time and are specifically developed to improve system performance through a reduction of redundancy between subsystem materials and functions.

The scope of this conference is mainly focused on multifunctional materials and structures for different engineering applications ranging from large scale engineering application to micro/nano structural and bio-sensor systems, materials and products. The conference will last for 4 days including 3 full-day presentation sessions plus a technical visit organized on the last day to one of the biggest sensor manufacturing/design companies in Hong Kong (such as Hong Kong Science and Technology Park) or the Pearl River Delta region. The aim of the visit is to provide a channel for all participants/scholars to have a physical contact with the industry in the Southeast Asia region.

All participants to this conference will definitely have an opportunity to interact with the most outstanding world leaders and get acquainted with the latest developments in the area of multifunctional materials and structures, and their applications for science and engineering. I am sure that besides the technical programs held in the conference, you will be able to share your happiness with your colleagues and families in the cities of Hong Kong, Macau and the Southeast region of China.

I would like to take this opportunity to invite you and your colleagues to join with us. See you in Hong Kong in 2008.