

# Preface

With constantly advancing technologies and continuously improved facilities, we are now able to explore things as vast as the universe and as small as cells. And in those studies with small things, nanotechnology can always trigger great interest among researcher.

Not many years ago, nanotechnology, when it first appeared in front of the public, was considered mysterious and useful only in certain limited fields like aerospace, military engineering and national defense, which were all not much related to our daily life. That situation is much different now. Over the last decade, researchers have found various uses for nanotechnology like medicine, pharmacy, manufacturing and even in clothes making.

To make this technology useful in more fields and specifically in biomedical materials, we have organized this convention-the 2014 International Conference on Advanced Nano-Technology and Biomedical Material (ANTBM2014). Like we have expected, this convention, with attracting topics and careful organizing, has received quite a deal of help from researchers in various countries. Without the help from these participants, we would never be able to make ANTBM2014 so productive and informative.

ANTBM2014, which will be held in Guangzhou, China on June 29 and 30, covers four major fields; each field is subdivided into more categories with the hope to discuss each topic more deeply and thoroughly. The four main fields are: 1) Advanced Nano-Technology and Application, 2) Materials, Materials Processing and Chemical Engineering, 3) Biological and Medical Engineering and Technology, 4) Design and Manufacture in Mechanical Engineering, Engineering Management of Production.

From all papers we received for these four topics, we, after reviewing and discussing, have selected about one hundred to finally publish in the proceedings. We believe that these inspiring researches of our excellent participants will not only prove to be useful to others' research and study, but also greatly accelerate the advance of nanotechnology. Our deep gratitude goes directly to these authors.

Besides our excellent participants, the committee for ANTBM2014 and other peer reviewers have also made much effort to make this convention better. The TTP (TRANS TECH PUBLICATIONS) and the organizers of ANTBM2014 also deserve our deep appreciation for their publishing and organizing work. Thank you!

Lastly, let's wish together that ANTBM2014 would serve to its participants both as a research booster and a pleasant adventure.

ANTBM2014

# **ANTBM2014 Organizing Committee**

## **General Chair**

J. Yeh, Tallinn University of Technology, Estonia

## **Publication Chair**

Zhang Kaili, City University of Kong Kong, Hong Kong

## **Program Chair**

Dr.K. S. Rajesh, Defence University College, India

## **International Scientific Committee**

B.H.Chen, Fu Jen University, Taiwan

Vladimir Saetchnikov, Belarusian State University, Belarus

M A Saeed, Universiti Teknologi Malaysia, Malaysia

Rabah Boukherroub, CNRS & University Lille1, France

Saeed Heidari-keshel, Shahid Beheshti University of medical sciences, Iran

Saeid Nahavandi, Deakin University, Australia

J. Yeh, Tallinn University of Technology, Estonia

Muhammad Rafi Raza, Universiti Kebangsaan Malaysia, Malaysia

Rasoul Safdarian, Khatam Alanabia University of Technology, Iran

Ali A. safaei, Tarbiat Modares University, Iran