

## Preface

The Asia Pacific region has become a manufacturing hub for optical components and optoelectronics. These optical devices are widely used in imaging optical systems, such as various consumer and scientific products, instruments and lighting systems, etc. The first Asia Pacific Conference on Optics Manufacture 2007 (APCOM 2007) has been successfully held in Hong Kong. The second conference was held in Taipei, Taiwan in 2009 and the third APCOM was held in Changchun, Northeast China in 2012. The fourth APCOM will be held on November 09-11, 2014 in Guangzhou, China.

APCOM2014 features high quality plenary presentations by well-known experts, parallel oral sessions, poster sessions, and banquet. All papers will be published in the Key Engineering Materials. The papers are indexed by EI Compendex engineering databases. Extended versions of the best papers may be recommended to be published in the related journals (SCI).

APCOM 2014 aims to provide an exciting platform for the international exchange of latest research findings and developments in the area of optical design, advanced optics manufacturing technology and optical measurement. It also intends to promote the sharing of ideas and emerging technologies, as well as to foster R&D collaboration amongst academics, research institutions and the relevant industries.

APCOM 2014 is co-organized by Guangdong University of Technology and The Hong Kong Polytechnic University, financially supported by Guangdong Provincial Innovative Research Team Program (NO. 201001G0104781202).

## Welcome message



**Prof. Chen Xin**

**President of Guangdong University of Technology**

**Chairman of the 4th Asia Pacific Conference on Optics Manufacture**

Distinguished Professor Jin Guofan, Academician of Chinese Academy of Sciences, Dear Professors and experts, ladies and gentlemen,  
Good morning.

Today, the fourth Asia Pacific Conference on Optics Manufacture (APCOM 2014) opens in the beautiful city of Guangzhou, providing us a precious chance to gather together to discuss and share the latest issues concerning the optical design, micro-nano manufacturing technology and equipment, and optical measurement. On this occasion and on behalf of Guangdong University of Technology and the conference organizing committee, I would like to extend my warmest welcome to experts and scholars attending the conference from home and abroad.

The conference is held to promote exchange and cooperation among experts at home and abroad so as to jointly push the development of the optical design, advanced optics manufacturing technology and equipment, optical measurement. The conference is co-organized by Guangdong University of Technology and the Hong Kong Polytechnic University. Hereby, my sincere thanks also go to the departments, academic institutes and persons for their support.

Guangdong University of Technology is a key university of Guangdong Province with a history of more than 50 years, and endeavors to educate high-quality technically-oriented students, and has made great contribution in the field of mechanical design and manufacturing for the province and country. The University's Mechanical Engineering discipline is a provincial key discipline, and is listed as a critical 211 discipline. We are proud of our state key lab (mechanical equipment and control technology laboratory) supported by Ministry of Education and a provincial Key Lab (Micro-nano Manufacturing Technology and Equipment, Computer Integrated Manufacturing Laboratory), and have published a lot of important research results in digital design, advanced manufacturing technology, precision equipment manufacturing and materials science.

Advanced manufacturing is an important pillar industry of the national economic development, and in turn manufacturing technology innovation lays a foundation and momentum for the development of the mechanical industry. The development trend for the Design and Manufacturing Technology of the advanced optics is one of the important directions for the future manufacturing. With the global shift of manufacturing to developing countries, China has become the world's "manufacturing base." Manufacturing industries, especially the equipment manufacturing industry, plays an important role in the national industrial economy. The development of advanced optics design and manufacturing technology is of critical importance to the development of China.

Guangdong Province is an important base of the electronics manufacturing, electronic information industry in the world. The annual output value of Guangdong Province has more than two trillion, accounting for one-third of the national output. Guangdong Province needs a large-volume and high production efficiency manufacturing of the advanced optics, LCD flat panel display and other major practical in the optics, electronics, information, semiconductor lighting (LED), solar photovoltaic industry. Therefore, Guangdong Province gets an increasing demand for the advanced optical design, the development of the nano-micro manufacturing equipment and key components, ultra-precision manufacturing technology and so on. At the same time, it is necessary to train senior professionals and high-level innovative talents in ultra-precision manufacturing technology, and to establish R & D and innovation base in the advanced optics design, ultra-precision machining technologies and equipment in Guangdong Province.

Thus, the APCOM 2014 being held in Guangzhou is an event of great significance. Through the conference, we will discuss the state of the art and future developments in the field, strengthen cooperation and exchange among experts from home and abroad, and further push the development of the discipline. I sincerely hope that scholars and professors attending the conference can put forward more innovative academic ideas, fully display the latest achievements, explore and discover new academic fields through extensive and in-depth exchange and discussion to promote the field's development.

I hope that the fourth Asia Pacific Conference on Optics Manufacture will be a great success!

Thanks.

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