

Preface

The 9th International Conference on Measurement and Control of Granular Materials (MCGM' 2011) (Global High Level Academic Seminar) was held in Shanghai, China from October 27–29, 2011 which is an important event for IFMCGM development in its own field. The MCGM Conferences have experienced for 23 years long history since the first one was opened in 1988 in Shenyang, China with 90 attendees from 16 countries. The International Federation of Measurement and Control of Granular Materials (IFMCGM) were founded shortly after the first conference. IFMCGM has successfully organized 9 MCGM Conferences which were all focused on measurement and control of granular, powder, particulate, solids and nanomaterials and so on. MCGM field has concerned with many other sciences and promoted technologies and industries. All councilors of IFMCGM have given their selfless contributions and wisdoms to globalization of MCGM development. Nowadays, special inmemoriam is to all late founders of IFMCGM, i.e., Prof. Koichi Inoya (Japan), Prof. B. Scarlett (Netherlands), Prof. Isa Addullayev (Azerbaijan), Prof. D. F. Bagster (Australia) and Dr. Frank Hauert (Germany) who all had passed away in a few years. Their spirits have impelled younger members and councilors of IFMCGM to develop the fields of MCGM unceasingly into the future. Nowadays, researchers and engineers are in cooperation with each other to solve technical and theoretical difficulties in the fields of MCGM that have become important branches in academic and industrial developments.

The preparation of MCGM' 2011 was a great success with contribution of all attendees from 10 countries. 75 papers were presented at MCGM2011 Conference site and 63 reviewed and selected papers from them are edited in the Proceedings of MCGM2011 which will be published by Trans Tech Publications Ltd.

Thanks to Prof. Xinguang Li and Dr. Chunli Ren to help editing the MCGM2011 Proceedings.

Many thanks to Mr. Thomas Wohlbier who has done his best help me in editing this version of Proceedings for a long time. Special thanks to Trans Tech Publications Ltd. promoting global scientific and technical (both in academic and industrial) development since its foundation!

Zhixian Jin

Chief Editor and Global Academic Consultant
International Federation of Measurement and Control of Granular Materials
Currently Prof., Northeastern University, China
Shenyang, China



Proceedings of

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Organization

Sponsor:

International Federation of Measurement and Control of Granular Materials (IFMCGM)

Co-Organizers:

Shanghai Second Polytechnic University, China; Northeastern University, China

Co-Sponsors:

Chinese Society of Particuology, China
Society of Powder Technology, Japan
The Chinese Society for Measurement, China
China Instrument Society, China
The Architectural Society of China
Institute of Particle Sci. and Eng., The
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Center for Bulk Solids and Particulate
Technology, Australia

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China Federation of Powder, China
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Members: Gang Yang, Ying Ci, Chunli Ren, Jia Xu, Wang Anan, Lu Ling, Zhao Hongmei
Tel.: +86-24-83689395, Fax: +86-24-23891977
mcgm2011@yahoo.com, jzhixian@yahoo.com.cn