

PREFACE

The 1st International Conference on Functional Materials and Chemical Engineering (ICFMCE 2017) was held in Dubai, United Arab Emirates, 24-26 November 2017.

The objective was to provide a forum for professional researchers – scientists and engineers – from the fields of functional materials and chemical engineering as well as mechanical design, manufacture and automation. Further to the usual exchange of knowledge, new scientific concepts, and engineering experiences, which are typical of such gatherings, this event provided opportunities to create new business relationships, learn about cutting-edge research and find partners for future projects. The program included keynote speeches, oral and poster presentations, at a highly specialized level.

The basis for discussion was the material delivered by the following keynote speakers, being internationally recognized academics and leading experts:

- Rafiqul Gani (Technical University of Denmark, Denmark), *A multilayered view of chemical and biochemical engineering*;
- Mario Richard Eden (Auburn University, USA), *Next Generation Computer-Aided Tools for Chemical Process and Product Design*;
- John M Woodley (Technical University of Denmark, Denmark), *Engineering Scalable Biocatalytic Processes*;
- Flavio Manenti (Politecnico di Milano, Italy), *AG2S™ technology: the new route for effective CO₂ reuse*;
- Dong Hwa Kim (Hanbat National University, South Korea), *What will be the core Technology in Mechanical Design, Manufacture and Automation and How will it change: The Paradigm of Society, and Study in 4th Wave Era of 21C*;
- Er Meng Joo (Nanyang Technological University, Singapore), *Cognitive Robotics: Recent Developments and Futuristic Trends*;

And there are also many other impressive speeches delivered by the invited speakers: Edwin Zondervan (Germany), Bent Sarup (Denmark), Yousef Almohairi (UAE), Iqbal M. Mujtaba (UK), Johanna Kleinekorte (Germany), Alberto Pettinau and Enrico Maggio (Italy). The substance of the conferences was comprised of 29 papers from a variety of disciplines, reflecting a range of different points of view, and containing the newest research findings of the authors' teams. The majestic splendor of the meeting location – spectacular, ultra-modern Dubai – complemented the dynamic nature of this prestigious event.

This publication presents the materials covered at the above conferences and serves as both a summary and confirmation of the value of continuing such a congress in future years.

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On behalf of the Conference Committee

