## **Preface**

After the first ICAMEM 2011 in Shenyang, China, the periodical international conference for multiple approaches in Advanced Materials and Engineering Materials was organized by the ICAMEM committee. The ICAMEM provided opportunities for academicians and professionals from various fields with cross-disciplinary interests to bridge their knowledge. The fourth conference ICAMEM 2014 was held on October 16-17, 2014 in Ningbo, China and October 19-20 in Hong Kong. The conference consisted of more than 100 contributed papers from 15 countries (Australia, Brazil, Czech Republic, Denmark, Egypt, Germany, India, Japan, Korea, Malaysia, Norway, Republic of China, Russian Federation, Slovak Republic and USA). The advanced materials and engineering materials are the basis of many emerging technologies as well as key elements in all science fields. The great attention has also been given to application in the fields of civil engineering, sensor and manufacturing technology. Furthermore, these fields become so large and complex that communication in engineering assumes proportions which make it important.

In the fourth ICAMEM conference, the respective sections of 'Strength of materials,' 'Surface analysis,' 'FPGA and ROM,' 'Heat treatment of metals,' 'Concrete and Civil engineering,' 'Fluid mechanics and Heat transfer,' 'Sensor and NDT,' 'Manufacturing Technology,' 'Material processing and characterization' . The proceeding book records the refereed papers presented at the conference.

The conference ICAMEM2014 has successfully carried out. It is a pleasure to thank all those who helped this volume to come into existence and the conference to be successful and exciting. I would like to thank the organizing committee, BOSI EDU for contributing to a successful and enlightening meeting. Moreover, on behalf of the organizing committee, I would like to especially thank Anne, Tanja, Dorthe, Saskia and all the editors from Trans Tech Publications for their great support to ICAMEM2014.

Katsuyuki Kida

University of Toyama, Japan

Conference Organizing Chair

October 31, 2014

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