# Testing and Measurement

Techniques and Applications

Editor: Kennis Chan



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# Testing and Measurement: Techniques and Applications

Editor

Kennis Chan

Advanced Science and Industry Research Center, Hong Kong



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### Preface

The human world is basically built only on tens of common materials, but on the basis of these common materials, we have created hundreds of or even thousands of new things. In our creation of these things, various theories and technologies have been used for their testing and assessing. Because of the importance of understanding the properties of the things that we have created, like their reliability, durability and expansibility etc., it is safe to say that our test and measurement technology is just as important as the technology that has created them.

The 2015 International Conference on Testing and Measurement: Techniques and Applications (TMTA2015) is an international conference which precisely focuses on this aspect of our technology.

TMTA2015, with the participation of passionate researchers from the world, has been successfully held on January 16 and 17, 2015 in Phuket Island, Thailand. As someone who was present, I was especially glad to see the discussions between our participants and the presentations from them. I believe that these researches, which are about technologies and techniques in different fields or in the same field but are from different aspects, are of great pragmatic value.

TMTA2015, even it is only a short time after the opening, is already showing its value in its specialized field-many research achievements introduced at this convention have already been applied in small scale; I am positively certain that more accomplishments will come in no time.

With the help from CRC Press, we are able to present you in this book all the accepted papers selected from hundreds of contributions. To make it easy for reading and convenient for consulting, we have had them categorized into 6 sub-categories, namely:

- Microwave, Ultrasonic and Acoustic Measurement and Application
- Material Performance and Measuring and Testing Technique
- Laser, Optics Fiber and Sensor
- Industrial Autoimmunization and Measurement
- Artificial Intelligence and Application
- Image, Signal and Information Processing

Finally, I would like to thank all the people who have helped and supported TMTA2015, including all our contributors, the conference chairs and committees, the organizers and CRC Press. I hope that this support will continue until the next TMTA.

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