

## **Proceeding of 8<sup>th</sup> International Conference of Physics and Its Applications (8<sup>th</sup> ICOPIA) 2016**

### **Preface**

International Conference of Physics and Its Applications (ICOPIA) is a biannual conference, started in 2001, for presenting and discussing current research in Physics and Its Applications. This year of 2016, this conference is the eighth one. Studies about material physics, optics, geophysics, instrumentation, magnetics and theoretical physics are presented either orally or by poster. This conference is mainly supported by Department of Physics, University of Sebelas Maret, Indonesia.

The keynote presentations are provided especially to show the contribution of physicists to medical research. A study of pT resolution magnetic sensor utilizing MI element towards medical use is presented by Prof. Tsuyoshi Uchiyama, from Nagoya University, Japan. Presentation about computational intelligence technique for electroencephalography (EEG) analysis is delivered by Assoc. Prof. Lipo Wang from Nanyang Technological University, Singapore. Keynote presentation about polycapillary optic and its application in medical imaging which is provided by Prof. Carolyn Ann Macdonald, from University At Albany, USA. Understanding the synergic and competitive interaction between Polyvinyl alcohol and plasticizers onto Na-Bentonite Clay is presented by Khairuddin, Ph.D, from University of Sebelas Maret, Indonesia.

This volume contains the papers presented in ICOPIA 2016. The papers are divided into eight sections: magnetism and magnetic material, material physics and characterization, acoustics, theoretical physics, instrumentation physics, optics and geophysics. This structure is made so that readers are easier to find an article in this proceeding.

We would like to thank to all of the participants attending this conference and also to committee for their contribution to this high level conference and its overall success. We also would like to thank to the reviewers for their positive contribution to maintain the quality of the articles presented in this conference. We also appreciate the contribution of our sponsor supporting the conference.

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Dr. Eng. Budi Purnama



**8th International Conference of Physics and Its Applications  
(8th ICOPIA) 2016**

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