The Second International Seminar on Sciences and Science Education, SITSE, organized by Faculty of Mathematics and Natural Science of State University of Medan, was held on 12 -13 December 2015 in Medan, North Sumatera, Indonesia. The seminar particularly encouraged the interaction of research students and developing academics with the more established academic community in a semiformal setting to present and to discuss new and current work. The high quality of the papers and the discussion represent the thinking and experience of experts and practitioners, researchers, lecturers and students in their particular fields and interests. The papers contributed the most recent scientific knowledge known in science and science education.

This proceeding contains all the paper presented in the seminar, consisted of 3 papers of Biological Sciences, 4 papers of Chemical Sciences, 1 papers of Mathematical Sciences, 1 papers of Physical Sciences and 23 papers of Science Education.

In addition to the contributing papers, an outstanding keynote presentation on National Curriculum 2013 was made by Prof. Dr. Syawal Gultom, The Rector of State University of Medan, Unimed. This presentation gives all participants a new and comprehensive perspective on the orientation of national education in the next era.

Four invited keynote presentations were given by Prof. Dr. Yaya Rukayadi from Department of Food Science, Faculty of Food Science and Technology and Laboratory of Natural Products, Institute of Bioscience, Universiti Putra Malaysia, Serdang, Selangor Darul Ehsan, Malaysia, who spoke on the use of fingerroot *B. Rotunda* as medicine and its potency to treat cancer, Prof. Janchai Yingorayoon, Associate Dean, International Collage, Suan Sunanda Rajabbhat University, Bangkok, Thailand, who presented a simple, effective but interesting teaching model in Physics. Invited speaker from Dept. Of Educational Science, Mathematics and Creative Multimedia Faculty of Education, University Technology Malaysia, Johor, Dr. Corrinna Abdul Thalib spoke about the important role science process skills. The last but not least keynote speaker, Dr. Ari Widodo, Head of Graduate School in Science Education, Indonesia University of Education, Bandung, emphasized the latest trends in science education.

We thank all authors and participants for their contributions.

Medan, March 2016

Editor