



From the Editor

It is with great pleasure that we publish the first issue (Vol. 1, No. 1, Sep-Dec 2020) of the *Southeast Asian Journal of STEM Education*. Discussions about starting a STEM Education journal began several months ago with Dr. Pornpun Waitayangkoon, the Director of the Regional STEM Education Centre of the Southeast Asian Ministers of Education Organization (SEAMEO) headquartered in Bangkok. Dr. Pornpun's vision of the new center included an online peer-reviewed journal that would showcase research and "what works" in STEM education, focusing on STEM education in the region while also publishing studies and successful projects from other locations around the world. The goal is to inform educators, administrators, policy makers and STEM-based industries in Southeast Asia of what STEM education is, why it is needed, and how it is linked to issues in local schools, communities and businesses, as well as to the world at large.

While STEM education is well developed and integrated in the school curricula of many countries around the world, it is still a relatively new idea in the curricula of many Southeast Asian countries. Indeed, while some countries have integrated STEM teaching and learning, others in the region are just now learning about the concept of STEM education and its potential. It is in this light that the SEAMEO STEM Ed Centre provides professional leadership, joining with corporate and education partners to develop curricula, projects, teaching modules, student and teacher academies, professional learning communities, and other resources for STEM education in the region. The *Southeast Asian Journal of STEM Education* is proud to be part of this effort.

We have assembled a review board whose members are experienced STEM educators and STEM education researchers from countries around the world. In addition, we are advised by our Associate Editors, a group of highly respected educators whose support and suggestions are invaluable. The in-house journal team has worked hard to screen manuscripts, determine needed revisions, and communicate with authors and reviewers to ensure a quality publication. My deep appreciation and thanks go to Managing Editor Jirayu (Pete) Arayaprayoon, copyeditor and proofreader Sarit Sanguanwongse, Senior advisors Tom Corcoran and Ed Reeve, and Advisor Sattiya Langkapin. Their assistance has been crucial to the success of the journal.

In this inaugural issue, we are pleased to have authors from four countries contributing to the knowledge base in STEM Education. **Ophelia Kee and Tan Aik-Ling** of Singapore write about a study that strives to answer the question *What are students' challenges and perspectives when generating a STEM solution to a real-world problem?*; **Cladys M. Falcunaya, Marvin J. Rosales, and Apple Kaye C. Vera** discuss the impact of student misconceptions of heat and temperature on STEM studies in a Philippine high school; **Fred N. Finley**, a science educator from the U.S. reports on the need for culture-based STEM education, focusing especially in Southeast Asia; **June Alexis Razonable** gives an in-depth look at how using computer simulations in a Philippine high school to solve problems in chemistry helped promote conceptual change to correct misconceptions; and **Tomohiro Takebayashi and Yoshisuke Kumano** from Japan discuss how the study of local geological materials can be used in integrated STEM teaching and learning.

--John Stiles, Editor in Chief