



ABOUT IJSET

International Journal of Science Education and Teaching (IJSET) is supported by Science Education Association (Thailand) or SEAT. IJSET seeks articles addressing issues including science education, physics education, chemistry education, biology education, technology education, STEM education, science teacher education, early childhood science education, science curriculum and instruction, and other related science educational fields.

Peer Review Process

Articles submitted for publication must never have been previously published or currently under review at another journal. Each paper is reviewed by the editor and, if it is judged suitable for this publication, it is then sent to at least two independent reviewers for double blind peer review. Based on their recommendation, as well as consultation between relevant Editorial Board members the editors then decides whether the paper should be accepted as is, revised or rejected.

Publication Frequency

The IJSET provides an academic platform for work in the fields of interdisciplinary education. The IJSET publishes 3 issues annually. These include:

- Issue 1 (January - April)
- Issue 2 (May - August)
- Issue 3 (September - December)

Issue: IJSET Vol. 3 No. 1 (January – April 2024)

Publication Date: April 30, 2024

Publisher: Science Education Association (Thailand)

IJSET EDITORIAL TEAM

Editors

Assoc. Prof. Dr. Chokchai Yuenyong	Khon Kaen University, Thailand
Assoc. Prof. Dr. Prasart Nuangchalerm	Maharakham University, Thailand
Assoc. Prof. Dr. Saksri Supasorn	Ubon Ratchathani University, Thailand
Assist. Prof. Dr. Chanyah Dahsah	Srinakharinwirot University, Thailand

Editorial Board

Prof. Dr. P John Williams	Curtin University, Australia
Prof. Dr. Peter C Taylor	Murdoch University, Australia
Prof. Dr. Toshinobu	Hatanaka Toho University, Japan
Prof. Dr. Chun-Yen Chang	National Taiwan Normal University, Taiwan
Prof. Dr. Young-Shin Park	Chosun University, Gwangju, Korea
Prof. Dr. Lilia Halim	Universiti Kebangsaan Malaysia
Prof. Dr. Hadi Suwuno	State University of Malang, Indonesia
Prof. Dr. Suratno	University of Jember, Indonesia
Prof. Dr. Manuel Barquilla	Mindanao State University - Iligan
	Institute of Technology, Philippines
Assoc. Prof. Dr. Cathy Bunting	University of Waikato, New Zealand
Assoc. Prof. Dr. Duc Nguyen Mau	Hanoi University of Education, Vietnam
Assoc. Prof. Dr. Nason Phonpok	Srinakharinwirot University, Thailand
Assoc. Prof. Dr. Pongprapan Pongsophon	Kasetsart University, Thailand
Assoc. Prof. Dr. Suthida Chamrat	Chaing Mai University, Thailand
Assist. Prof. Dr. Pattamaporn Pimthong	Kasetsart University, Thailand
Assist. Prof. Dr. Theerapong Sangpradit	Srinakharinwirot University, Thailand
Assist. Prof. Dr. Chaninan Pruekpramool	Srinakharinwirot University, Thailand
Assist. Prof. Dr. Phasarabet Wetwiriyaakul	Thaksin University, Thailand
Assist. Prof. Dr. Siriwan Chatmaneeerungcharoen	Phuket Rajabhat University, Thailand
Assist. Prof. Dr. Panwilai Dokmai	Maharakham Rajabhat University, Thailand
Dr. Adchara Chaisri Khureerung	Sakon Nakhon Rajabhat University, Thailand
Dr. Warangkhan Thongnoppakun	Phuket Rajabhat University, Thailand
Dr. Suriya Chapoo	Naraesuan University, Thailand
Dr. Jiraporn Tupsai	Khon Kaen University, Thailand
Dr. Pratuengsook Maneelam	Khon Kaen University, Thailand
Dr. Sukanya Sutaphan	Khon Kaen University, Thailand
Dr. Ruhaisa Dearamae	Yala Rajabhat University, Thailand

TABLE OF CONTENTS

About IJSET	Page I
IJSET Editorial Team	II
Author Index	IV
Research Articles	
Development of Robotics-Assisted Acid-Base Titration Setup and Laboratory Activity for Grade 11 Stem Jupiter Yap, Johannes Remotigue, Ellen Castro, Aldrine Cagang, Sotero Jr. Malayao, Joy Magsayo, Joan Rose Luib	1-14
Development of Creative-Based Learning Management Platform on Transformational Leadership Educational Management in Digital Education for Graduate Learner Phongsak Phakamach, Darunee Panjarattanakorn, Samrerng Onsampant	15-29
A Review: The Impact of micro: bit-assisted STEM Education Vivi Mardian, Waliyyatu Azzahra	30-37
Development of Grade 11 Students' the 21st Century Skills about Critical Thinking in Learning about Reproduction of Flowering Plants through Science Technology and Society (STS) Approach Ruthairat Bauphitak, Pratuengsook Maneelam, Chokchai Yuenyong	38-50