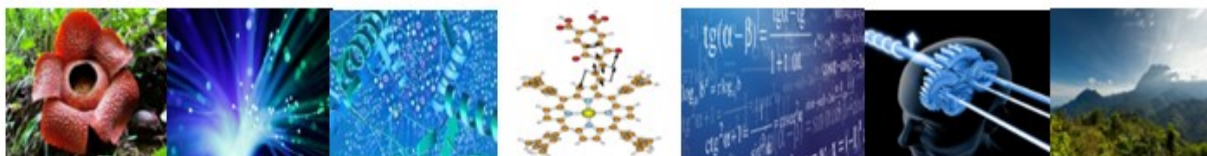


# TRANSACTIONS ON SCIENCE AND TECHNOLOGY



Volume 6 Issue 1 March 2019



**ISSN 2289-8786**

# Transactions on Science and Technology

ISSN: 2289-8786

## Editors-in-Chief

- Jedol Dayou**  
Energy, Vibration and Sound Research Group (e-VIBS),  
Faculty of Science and Natural Resources,  
Universiti Malaysia Sabah, Kota Kinabalu, Sabah, Malaysia.  
jed[at]ums.edu.my
- Khim Phin Chong**  
FGV Professor Chair,  
Universiti Malaysia Sabah.  
chongkp[at]ums.edu.my

## Managing Editor

- Fui Pien Chee**  
Energy, Vibration and Sound Research Group (e-VIBS),  
Faculty of Science and Natural Resources,  
Universiti Malaysia Sabah, Kota Kinabalu, Sabah, Malaysia.  
fpchee06[at]ums.edu.my
- Asmahani Awang**  
Energy, Vibration and Sound Research Group (e-VIBS),  
Faculty of Science and Natural Resources,  
Universiti Malaysia Sabah, Kota Kinabalu, Sabah, Malaysia.  
asmahani\_awang[at]ums.edu.my

## Editorial Board

- Aini Janteng**  
Mathematics with Economics Programme,  
Faculty of Science and Natural Resources,  
Universiti Malaysia Sabah.
- Chong Mun Ho**  
Mathematics with Economics Programme,  
Faculty of Science and Natural Resources,  
Universiti Malaysia Sabah.
- Ismail Jusoh**  
Faculty of Resource Science and Technology,  
Universiti Malaysia Sarawak.
- Jualang Azlan Gansau**  
Biotechnology Programme,  
Faculty of Science and Natural Resources,  
Universiti Malaysia Sabah.
- Leong Wan Vun**  
Environmental Science Programme,  
Faculty of Science and Natural Resources,  
Universiti Malaysia Sabah.
- Noumie Surugau**  
Industrial Chemistry Programme,  
Faculty of Science and Natural Resources,  
Universiti Malaysia Sabah.
- Rachel Fran Mansa**  
Chemical Engineering Programme,  
Faculty of Engineering,  
Universiti Malaysia Sabah.
- Sebastian Dayou**  
School of Engineering & Technology,  
University College of Technology Sarawak.
- Yeong Sheng Tey**  
Institute of Agricultural and Food Policy Studies,  
Universiti Putra Malaysia.
- Andy Russel Immit Mojiol**  
Faculty of Science and Natural Resources,  
Universiti Malaysia Sabah.
- Coswald Stephen Sipaut @ Mohd Nasri**  
Chemical Engineering Programme,  
Faculty of Engineering,  
Universiti Malaysia Sabah.
- Jidon Adrian Janaun**  
Chemical Engineering Programme,  
Faculty of Engineering,  
Universiti Malaysia Sabah.
- Ko Ying Hao**  
Department of Mechanical Engineering,  
Faculty of Engineering and Built Environment,  
Tunku Abdul Rahman University College.
- Mohd Kamel Wan Ibrahim**  
Mechanical Engineering Programme,  
Faculty of Engineering,  
Universiti Malaysia Sabah.
- Ping Chin Lee**  
Biotechnology Programme,  
Faculty of Science and Natural Resources,  
Universiti Malaysia Sabah.
- Raseetha Vani Siva Manikam**  
Faculty of Applied Sciences,  
Universiti Teknologi MARA Shah Alam.
- Thomas Moh Shan Yau**  
School of Engineering & Technology,  
University College of Technology Sarawak.

## International Editorial Board

- Baba Musta**  
Universiti Malaysia Sabah, Sabah, Malaysia
- Cesar G. Demayo**  
Mindanao State University-Iligan Institute of Technology,  
Philippines
- Francisco Nuñez De Caceres**  
Universidad Autonoma del Estado de Hidalgo, Mexico
- Mariam Gaidamashvili**  
Iv. Javakhishvili Tbilisi State University, Georgia
- Patricia Anthony**  
Lincoln University, New Zealand
- Sa-Ouk Kang**  
Seoul National University, South Korea

## Associate Editor

**Jackson Chang** (MSc), Malaysia

## Associate Editors (Special Issue)

**Arnnytte Alexander** (MSc) Malaysia

**Syahriel Abdullah** (MSc) Malaysia

## Website Manager

**Kimberly Nicola Jiun**, Malaysia

<http://tost.unise.org/>

**Volume 6, Issue 1 (March 2019)**  
*Table of Contents*

**Full articles**

<i>Nur Fadhilah, Abentin Estim, Siti Nor Fatimah</i>	1	<b>Water Quality and Growth Performance of Giant Freshwater Prawn, <i>Macrobrachium rosenbergii</i> and Green Bean, <i>Phaseolus vulgaris</i> in Aquaponics System at Different Flow Rates</b>
<i>Janice May Lynn Thoe, Noumie Surugau, Harry Lye Hin Chong</i>	9	<b>Application of Oil Palm Empty Fruit Bunch as Adsorbent: A Review</b>
<i>Tiew Mee Chien</i>	27	<b>Using Graphic Calculators in Teaching and Learning Functions and Graphs Topic</b>
<i>Nor Amirah Shamsudin, Azlinah Matawali, Jualang Azlan Gansau</i>	36	<b>Comparison of Antioxidant Activity and Phytochemical Content of Borneo Wild Berry, <i>Rubus fraxinifolius</i> (Rogimot)</b>
<i>Darrell Nadeng Dominic, Jasmine Siah, Brenda Chan, Peter Morin Nissom</i>	42	<b>Evaluating the Efficacy of Oil-Based Entomopathogenic Fungi conidial Formulations on Dog Ticks</b>
<i>Feona Isidore, Fera Cleophas, Pak Yan Moh, Kawi Bidin</i>	48	<b>A Pristine Water Quality of Repeatedly Logged Forest River in Kawag Forest Area, Ulu Segama Malua Forest Reserve, Sabah</b>