

Keynote Addresses (Tentative Sequence)

Venue: SEAMEO Hall

Keynote Address 1 Day 1: 14 November 2017 (Tuesday), 0930 - 1030
Science and STEM Education: Can we do better? <i>Deborah Corrigan, Australia</i>
Keynote Address 2 Day 1: 14 November 2017 (Tuesday), 1415 - 1530
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX <i>Teresa Jean Kennedy, USA</i>
Keynote Address 3 Day 2: 15 November 2017 (Wednesday), 0815 - 0930
iMVT Science Learning Model <i>Baohui Zhang, China</i>
Keynote Address 4 Day 2: 15 November 2017 (Wednesday), 1415 - 1530
Mathematics Has a Power for Discovery and Invention <i>Sugihara Kokichi, Japan</i>
Keynote Address 5 Day 3: 16 November 2017 (Thursday), 0815 - 0930
Equipping Scientists to Meet the Challenges of the 21 st Century: Crossing the Boundaries between Science and Humanity <i>Sayed Azam-Ali, Malaysia</i>

DAY 1

Parallel Session 1

Day 1: 14 November 2017 (Tuesday), 1130 - 1300

Venue: Penang Room 1	
1140 - 1200	Analysis of Students' Perceptions on Mole Concept and Solution Concentration <i>Sheau Huey Chong, Norlia Goolamally & Kwan Eu Leong</i>
1205 - 1225	Active Teaching and Learning as a Model to Improve Acquisition of Chemical Literacy among Lower Secondary Students in Uganda <i>James Asile Droti & Joseph Oonyu</i>
1230 - 1250	Exploring Philippine Traditional Games as Motivational Activities for Learning Science in the K12 Curriculum <i>Fernan P. Tupas</i>

Venue: Penang Room 2	
1140 - 1200	Educational Robotics: Evaluating The Impact On Students' Cognitive Development <i>Henry Goh, Mohamad Bin Bilal Ali, Shukiman Bin Sukardi & Irwan Bin Isdup</i>
1205 - 1225	Problem-Based Learning in Electronics as an Ethnomethodology Experience among College Students <i>Edsel O. Coronado</i>
1230 - 1250	The Common Core Regional Learning Standards in Science: A Tool for Realizing Sustainable Development Goals <i>Dominador Dizon Mangao & Nur Jahan binti Ahmad</i>

Venue: Singapore Room	
1140 - 1200	The Classification of Effective Pedagogical Approaches in the Teaching of Problem Solving <i>Maureen Siew Fang Chong & Masitah Shahrill</i>
1205 - 1225	The Implementation of Science Subject in PT3 in Malaysia <i>Deviki Muniandy & Hasimah Alimon</i>
1230 - 1250	An Exploration on the Utilization of the Pastoral Cycle Paradigm-Tool in Developing an Authentic Assessment for the Specialized Course Disaster Readiness and Risk Reduction (DRRR) <i>Emmanuel D. Delocado</i>

Venue: Brunei Darussalam Room	
1140 - 1200	The Effects of 21st Century Science Learning Environment on the Attitude towards Learning Science <i>Chong Keat Meng & Mageswary Karpudewan</i>
1205 - 1225	Gestures Support the Emergence of Scientific Language <i>Suzyana Hashim & Mageswary Karpudewan</i>
1230 - 1250	Developing a Constructively Aligned Teaching Sequence on Organ Systems for Senior High School <i>Joyce Molino Magtolis</i>

Venue: Science Lab 1	
1140 - 1200	The Impact of Physical Education Technology (PhET) Interactive Simulations on Matriculation Students' Use of Multimode Representations in Understanding Chemical Equilibrium Concepts <i>Sumathi Ganasen & Mageswary Karpudewan</i>
1205 - 1225	Using Simulations to Enhance Understanding, Critical Thinking Skills and Problem Solving Skills about Acid and Base among Secondary School Students <i>Thiyoa Venugopal & Mageswary Karpudewan</i>
1230 - 1250	The Effectiveness of Using "Providing Alternative Thinking Strategy (PATHS)" A Neuro-Cognitive Approach in Improving Primary School Students' Understanding about the Phases of the Moon and Attitude Towards Learning Science <i>Gnana Jothy Chidambaravelu & Mageswary Karpudewan</i>

Venue: RECSAM Auditorium	
1140 - 1200	The Balance Method to Solve Linear Equations in One Unknown <i>Pumadevi Sivasubramaniam & Foong Gek Leng</i>
1205 - 1225	Ability to Deal with HOTS Items <i>Pumadevi Sivasubramaniam</i>
1230 - 1250	Year Five Pupils' Performance in Pattern Generalisation <i>Piriya Somasundram, Sharifah Norul Akmar Syed Zamri & Leong Kwan Eu</i>

Venue: Thailand Room 1

1140 - 1200	The Effectiveness of Concept Mapping Approach for the Topic Inequalities in Mathematics Among Matriculation College Students in the Northern Zone <i>Aw Ying Juan & Lok Wai Foong</i>
1205 - 1225	Enhancing Problem Solving through Mathematical Prompts <i>Norolain Decampong Guro & Amelia T. Buan</i>
1230 - 1250	The Use of Edmodo with Journal Writing in Teaching Mathematics <i>Jessie B. Aquino & Nelvin R. Nool</i>

Venue: Thailand Room 2

1140 - 1200	The Line Method and Solving Linear Equations in One Unknown <i>Wong Jian Ming & Pumadevi Sivasubramaniam</i>
1205 - 1225	Problem-Based Learning for Teamwork Among Pre-University Students <i>Thiruchelvam Kandaiah & Mohd Uzi bin Dollah</i>
1230 - 1250	Teaching Module for Independent Learning of Integration Techniques in Mathematics for Pre-University Student <i>Thiruchelvam Kandaiah & Aw Ying Juan</i>

Venue: Math Lab 2

1140 - 1200	Modeling Bahrain's Climate with Sinusoidal Functions <i>Douglas A. Salazar</i>
1205 - 1225	Effects of Differentiated Instruction on Mathematics Achievement, Creative Thinking Skills, and Critical Thinking Skills: Bases for Development of Engaging Mathematics Lesson <i>Giena Llorente Odicta</i>
1230 - 1250	The Effects of "The Laying of Bathroom Wall Tiles Technique" in Enhancing the Understanding of Basic Mathematical Concepts of Low Achieving Elementary School Pupils <i>Ng Yoon Meng</i>

DAY 2

Parallel Session 2

Day 2: 15 November 2017 (Wednesday), 0930 - 1030

Venue: SEAMEO Hall	
0940 - 1000	Describing and Analysing the Study of Elementary Science in Japanese School-Based Lesson Study <i>Toshinobu Hatanaka</i>
1005 - 1025	Applying the Lesson Study Process through a Study Lesson to Promote Students' Mathematical Communication in Vietnam <i>Tuong Anh Hoa & Hau Huu NGUYEN</i>

Venue: Penang Room 1	
0940 - 1000	Relevancy of SEAMEO Youth Research Projects in Relation to SDG <i>Khor Sim Suan, Teh Kim Hong & Lee Shok Mee</i>
1005 - 1025	Impact of the TWINCLE Student-Exchange Program on Students from ASEAN Countries <i>Nomura Jun, Haga Mizuki, Yoshida Kyoko & Fujita Takeshi</i>

Venue: Penang Room 2	
0940 - 1000	Tracing Science Teachers' Perspective on Constructivist Learning Environment through Transformative Professional Learning <i>Cherryl May Hongcuay & Nelson A. Rosaroso</i>
1005 - 1025	Developing a Professional Learning Community through a Professional Development Programme in South Africa <i>Hartley Mogamat Shaheed</i>

Venue: Singapore Room	
0940 - 1000	The Development of an Instrument to Assess Lower Secondary Students' Argumentation skills in Socioscientific Scenarios <i>Pawinee Rattanakorn, Nantarat Kruea-In, Tussatrin Wannagatesiri & Kulthida Nugultham</i>
1005 - 1025	Measurement Model of Reasoning Skills among Science Students based on Socio Scientific Issues (SSI) <i>Sadiyah Baharom, Muhamad Ikhwan Mat Saad & Mohd Sa'ad Hashim</i>

Venue: Brunei Darussalam Room	
0940 - 1000	The Development of 'Jom Teroka dan Selidik Sains' Teaching Module <i>Che Nidzam Che Ahmad, Sadiah Baharom, Hasimah Alimon, Siti Shamsiah Sani & Asmayati Yahaya</i>
1005 - 1025	Enhancing HOTS among Year 5 Children through Sketches Using Children's Engineering Teaching Module <i>Kamaleswaran Jayarajah, Rohaida Mohd Saat, & Rose Annah Abdul Rauf</i>

Venue: Science Lab 1	
0940 - 1000	Effectiveness of ICT-Based Strategic Intervention Material (iSIM) in the Acquisition of Science Concepts in Grade IV <i>Erick L. Medrano</i>
1005 - 1025	The Matriculation Students' Learning Experiences in Stoichiometry Using Diagram and Verbal Explanation <i>Lok Wai Foong, Yau Pooi Wan & Aw Ying Juan</i>

Venue: RECSAM Auditorium	
0940 - 1000	Statistical Literacy, Statistical Reasoning & Statistical Thinking among Introductory Statistics Students of Negros Oriental State University, Philippines <i>Craig N. Refugio</i>
1005 - 1025	Examining Psychometric Properties of Mathematics Test Using Rasch Measurement Model <i>Zarina Binti Yunus, Nordin Abdul Razak & Ahmad Zamri Khairani</i>

Venue: Thailand Room 1	
0940 - 1000	The Compositional Meaning of Diagrams in the Malaysian and Singaporean Mathematics Textbooks <i>Saroeswary Velayutham & Lim Chap Sam</i>
1005 - 1025	Reforming the Mathematics Curriculum in Vietnamese Lower-Secondary Schools - Basic Perspectives to Determine the Main Content of Geometry <i>Duc Binh Do</i>

Venue: Thailand Room 2	
0940 - 1000	The Effectiveness of using RStudio in Statistics Learning Process among Undergraduate Students in Malaysia <i>Nur Raidah Salim, Kathiresan Gopal & Ahmad Fauzi Mohd Ayub</i>
1005 - 1025	Enhancing the Mathematical Process Skills of Grade Ten Students through Sequential Graphic Organizer <i>Michael Balicao Malvar</i>

Parallel Session 3

Day 2: 15 November 2017 (Wednesday), 1130 - 1300

Venue: Penang Room 1	
1140 - 1200	Teachers' Perception of Using STEM Video for Teaching and Learning <i>Nurbiha A Shukor, Zaleha Abdullah & Norwani bt Mamad</i>
1205 - 1225	Teaching Science at the Submicroscopic Level using Animated Computer Graphics <i>Kok Lai Yim</i>
1230 - 1250	Learning Biology through Digital Games in Form Four Classrooms in Malaysia <i>Joseph Suresh Kumar, Hashimah Alimon & Amri Yusoff</i>

Venue: Penang Room 2	
1140 - 1200	The Mediating Effect of Attitudes towards Teaching Science in the Relationship between Self-Efficacy Beliefs and Teaching Motivation on Behavioural Intention in Teaching Science Amongst Pre-Service Science Teachers <i>Chan Sane Hwui & Lay Yoon Fah</i>
1205 - 1225	Effect of Model Based Inquiry on Achievement and Critical Thinking of College Pre-Service Chemistry Teachers <i>Apollonia Anaele Nwosu, Sa'idu Danladi & Sani Abdullahi Gumel</i>
1230 - 1250	Science Teachers' Self-assessment for Inquiry-based Learning and Their Relationships to Incorporating Process Skills in Japan and the Philippines <i>Awaya Taichi, Fujita Takeshi, Pambit Raquel & Oshima Ryugo</i>

Venue: Singapore Room	
1140 - 1200	Basic Science Teaching in Nigeria- The Imperatives of Child Centered Approach <i>Sani Abdullahi Gumel & Sa'idu Danladi</i>
1205 - 1225	Readiness in Implementing Student-Centred (SCL) Learning: An Insight to Develop a Problem-Based Learning (PBL) Module

1230 - 1250	<p><i>Agnes Tan Shek Li & Mohamad Termizi Borhan</i></p> <p>Development of a Learning Process Model to Strengthen the 21st Century Skills Through-'Moderate Class More Knowledge'-Activity: Office of the Basic Education Commission</p> <p><i>Sukanya Ngambunjong, Chotima Nooprick & Wanna Chongdarakul</i></p>
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Venue: Brunei Darussalam Room	
1140 - 1200	<p>Enhancing Academic Achievement in Science through Integrated STEM Approach among High, Medium and Low Achieving Secondary School Students</p> <p><i>Yaki Akawo Angwal, Rohaida Moh'd Saat & Renuka Sathasioam</i></p>
1205 - 1225	<p>Integrating STEM Education Approach in Enhancing Higher Order Thinking Skills (HOTS)</p> <p><i>Nurzatulshima Kamarudin, Norlizawaty Baharin & Umi Kalthom Abdul Manaf</i></p>
1230 - 1250	<p>Problem-based Instruction Blended with Online Interaction to Improve Motivation, Scientific Communication skills, and Higher Order Thinking Skills of High School Students</p> <p><i>Hadi Suwono, Ety Kumala Dewi, Rizky Amalia Arinda & Anis Samrotul Lathifah</i></p>

Venue: Science Lab 1	
1140 - 1200	<p>Inquiry-Based Laboratory Environment: Its Effect on Students' Academic Performance and Motivation in Science</p> <p><i>Leovelyn C. Dumaog & Andrea G. Azuelo</i></p>
1205 - 1225	<p>Enhancing Seventh Grade Students' Critical Thinking Ability through Scientific Inquiry</p> <p><i>Kitisa-orn Laohammanee, Nantarat Kruea-In, Tussatrin Wannagatesiri & Kulthida Nugultham</i></p>
1230 - 1250	<p>A Qualitative Study on Levels of Manipulative Skills Among Form Four Students</p> <p><i>Nor Hasniza Ibrahim, Noryana Mohd Nor, Johari Surif, & Marlina Ali</i></p>

Venue: RECSAM Auditorium	
1140 - 1200	<p>Fostering Mathematical Thinking through Mathematical Communication Using Mathematics Inquiry</p> <p><i>S. Kanageswari Suppiah Shanmugam</i></p>
1205 - 1225	<p>The Comparative Nature of Mathematical Problems Stated and Solved Publicly</p> <p><i>Masitah Shahrill</i></p>
1230 - 1250	<p>Exploring the Critical Thinking Skills of Absentee Students in their Non-School Activities: A Design Ethnography</p> <p><i>Clark B. Banabatac</i></p>

Venue: Thailand Room 1

1140 - 1200	Effectiveness of Multisensory Strategy Using Number Smart Kit among Remedial Linus Students <i>Nursyazana binti Zakaria & Rosadah Abd Majid</i>
1205 - 1225	Investigating Mathematics Teachers' Knowledge and Beliefs of STEM Education <i>Pasttita Ayu Laksmiwati, Ummi Salmah, & I Gusti Ayu Russasmita Sri Padmi</i>
1230 - 1250	Integrating Entrepreneurial Skills in the Teaching of Percents to Elementary Pupils <i>Zarina I. Villadoid & Amelia T. Buan</i>

Venue: Thailand Room 2

1140 - 1200	Statistical Thinking Among Postgraduate Students: A Preliminary Study <i>Rosmawati Binti Ismail, Zaleha Binti Ismail, & Yudariah Binti Mohammad Yusof</i>
1205 - 1225	Performance of College Students in Calculus: An Institutional Study <i>Ma. Theresa Formoso Pescador & Mary Loreen Cayabyab</i>
1230 - 1250	Development of an Activity in Hisab Utilizing PhET Simulation <i>Zohayrah D. Masthur, Amelia T. Buan, Myrna E. Lahoylahoy, & Virginia S. Sombilon</i>

Venue: Math Lab 2

1140 - 1200	A Proposal for Retooling In-Service Primary School Teachers with Constructivist Based Pedagogy and Content Knowledge to Enhance the Teaching of Mathematics in Primary Schools in Uganda <i>Gertrude Namubiru</i>
1205 - 1225	Pedagogical Content Knowledge of Mathematics Teacher on Function Material in Junior High School <i>Ma'rufi, Muhammad Ilyas, Saltwa</i>
1230 - 1250	A Constructivist Approach to Teaching the Concept of Linear Inequality <i>Pham Sy Nam & Do Thi Dien</i>

DAY 3

Parallel Session 4

Day 3: 16 November 2017 (Thursday), 0930 - 1030

Venue: SEAMEO Hall	
0940 - 1000	Understanding the Basics of STEM Education through Zero Waste Project <i>Lee Shok Mee & Suteera Ruwicha</i>
1005 - 1025	Exemplary Case Knowledge: Best Practices of Excellent Biology Teachers <i>Ling Pick Yieng & Rohaida Mohd Saat</i>

Venue: Penang Room 1	
0940 - 1000	The Development of a Training Curriculum to Enhance the 21st Century Skills of Reading Instruction Competence and Reading Diagnostics for Lower Primary School Teachers <i>Mathuroth Paprachan, Marut Patphol & Wichai Wongyai</i>
1005 - 1025	Senior High School Students' Perceptions toward Reading Mathematics and Science Textbooks <i>Alyssa Marie Bato Iresare, Luz Gracia C. Iturralde & Archie F. Lopez</i>

Venue: Penang Room 2	
0940 - 1000	The Predictive Effects of School Safety on Southeast Asian Grade 8 Students' Science Achievement in TIMSS 2015 <i>Lay Yoon Fah & Ng Khar Thoe</i>
1005 - 1025	Research and Development Model of Assessment for Learning: Questioning and Feedback for Learning Development to Enhance Students in Basic Education <i>Chotima Nooprick & Sombat Tayraukham</i>

Venue: Singapore Room	
0940 - 1000	Inquiry-based STEM Activities Created by Science Student Teachers in a Teaching Method Course <i>Siriporn Kruatong, Nantarat Krua-In, Kulthida Nugultham & Tussatrin Wannagatesiri</i>
1005 - 1025	Moving toward STEM integration: Understanding Current Teaching Practices of Physics' Teachers <i>Muhammad Abd Hadi Bunyamin, Fred Finley, Corrienna Abdul Talib, & Sharifah Osman</i>

Venue: Brunei Darussalam Room

0940 - 1000	Module Development of Scaffolded Mastery Learning (ML) in Cell Division Topic <i>Annur Ashikin Ab Rashid & Mohamad Termizi Borhan</i>
1005 - 1025	Effect of Implementing Guided Discovery and Free Discovery Model into Student's Procedural Knowledge, Metacognitive Knowledge and Metacognitive Awareness of Respiratory System <i>Nurhaida Natalia Purba, Ely Djulia & Hasruddin</i>

Venue: RECSAM Auditorium

0940 - 1000	A Review on Research in Technological Pedagogical and Content Knowledge in Mathematics Education <i>Nurhashimah Za'ba, Zaleha Ismail & Abdul Halim Abdullah</i>
1005 - 1025	Integration of Pedagogical Content Knowledge (PCK) in the Learning Module on Mathematics in the Modern World <i>Amelia Tersol Navejas & Rosemarie G. Felimon</i>

Venue: Thailand Room 1

0940 - 1000	Integrating Problem-Based Learning and Technology to Support Students' Self-Confidence in Pythagorean Theorem: A Classroom Action Research <i>Pasttita Ayu Laksmiwati</i>
1005 - 1025	Comparing Two Approaches to Teaching the Properties and Graph of $y = \sin x$ <i>Pham Sy Nam, Do Duc Thai, Do Tien Dat & Max Stephen</i>

Venue: Thailand Room 2

0940 - 1000	Critical Thinking and Problem-solving Skills Assessments in the K-12 Mathematics Curriculum as Bases for the Development of Problem-based Modules <i>June Rey S. Sulatra</i>
1005 - 1025	HOTS Vs Maths <i>Benny Kong Tze Loong & Ng Lee Fung</i>

Venue: Math Lab 2

0940 - 1000	Learning Mathematics in 21st Century Era: A Case Study of Learning Triangle Inequality Theorem Using Digital Mathematics Environment <i>Wahid Yuniarto & Wahyudi</i>
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1005 - 1025	A Study on Capacity Development for Mathematical Pedagogics Students <i>Hau Huu Nguyen, Tuong Anh Hoa & Giang Pham Anh</i>
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Parallel Session 5

Day 3: 16 November 2017 (Thursday), 1130 - 1300

Venue: Penang Room 1	
1140 - 1200	Chemistry Problem Solving among Students in Higher Education <i>Johari Surif, Hon Qing Zhong & Nor Hasniza Ibrahim</i>
1205 - 1225	The Effectiveness of Problem-Based Learning Module Integrated with Green Chemistry in Learning Outcomes and Ability of Generic Science in Scale Awareness and Students' Logical Inference <i>Sudarmin, Laely Zahro & Rr. Sri Endang Pujiastuti</i>
1230 - 1250	The Learning Cycle Model: Its Effects on Academic Performance and Attitudes <i>Catherine Roilo Murillo & Andrea G. Azuelo</i>

Venue: Penang Room 2	
1140 - 1200	Teachers' Competencies, Training Experience and Classroom Pedagogical Approaches in Science Teaching <i>Andrea G. Azuelo, Alven Almo Manual & Lalaine G. Sariana</i>
1205 - 1225	A Survey Study on Pattern and Types of Inquiry-Based Learning Practised by Science Teachers in Batang Padang District <i>Nurul Sakiinah Mohd Azhari & Siti Shamsiah Sani</i>
1230 - 1250	Promoting Predict Observe Explain (POE) Strategy among Primary School Science Teachers <i>Parvinder Amar Singh & Juriah Bt Abu Bakar</i>

Venue: Singapore Room	
1140 - 1200	Personality Characteristics, Aptitude, Learning Style and Biology Performance of High School Students <i>Eimee Dela Cena Potato</i>
1205 - 1225	Student's Conceptual Understanding, Process skills and Learning Behavior <i>Alryn Toong Mercader & Andrea G. Azuelo</i>
1230 - 1250	Enhancing Student's Academic Performance and Their Attitudes in a Cooperative Learning Environment in High School Biology <i>Karen B. Gernale-Loable & Andrea G. Azuelo</i>

Venue: Brunei Darussalam Room	
1140 - 1200	Interest in STEM Careers Among Secondary School Students <i>Norshariani Abd Rahman, Lilia Halim & Zanaton Iksan</i>
1205 - 1225	Nurturing Entrepreneurial Mindset among Secondary Students through Integration of Thinking Based Learning and the 6E Instructional Model in doing STEM Project <i>Mohd Norawi Ali, Hartini Bt Hashim & Mohd Ali Shamsudin</i>
1230 - 1250	Developing Entrepreneurship Skills in the Secondary Science Classroom <i>Miranda Yeoh Poh Khoon</i>

Venue: Science Lab 1	
1140 - 1200	Science Student Teachers' Understanding and Teaching Practices of STEM Education Approach <i>Pinthudit Klinkajorn</i>
1205 - 1225	Analysis of Primary School Students' Ability in Solving the Problem of STEM based Question: The Analysis of STEM Online Test <i>Septian Karyana, Heri Setiadi, Dian Permana & Triyanta</i>
1230 - 1250	Smart Garbage System: Nurturing Students' Problem-Solving Skills through STEM <i>Murni Ramli, Teguh Endah Saraswati, Adhitya Pitara Sanjaya & Bara Yudhistira</i>

Venue: RECSAM Auditorium	
1140 - 1200	Equating Paper-Based and Computer-Based Grade 7 Mathematics Achievement Test <i>Amelia Tia Buan</i>
1205 - 1225	An Evaluation Model of the On-line Based Programs of the Development and Empowerment of Mathematics Teachers and Education Personnel <i>Ganung Anggraeni</i>
1230 - 1250	Evaluation of Using Scantron in Assessing Student Achievement in Mathematics <i>Restituto I. Rodelas, Nerissa L. Losaria, Ceso VI, Romela M. Cruz, Cese, Rex A. Ado, & Marife V. Arias</i>

Venue: Thailand Room 1	
1140 - 1200	Facebook Group: Mathematics Teaching-Learning Process Beyond the Four Walls at University of San Carlos SHS-ABM, Cebu City Philippines <i>Rodulfo T. Aunzo, Jr.</i>

1205 - 1225	Developing a Localized Mobile Game for Grade 11 Mathematics Learning <i>Irene D. Divinagracia</i>
1230 - 1250	The Effectiveness of Using Mobile Multimedia Learning Activities Guided by Activity Theory on Students' Academic Achievement in Probability <i>Ng Choon Hong, Sahrizal Bin Mohd Sohir, Durga A/P Gnanasagaran, Noor Farizawati Binti Mohd Yunus & Fizaril Amzari Omar</i>

Venue: Thailand Room 2	
1140 - 1200	Career Decision Making Self-Efficacy and Narratives of Peak Performers in Intensive Mathematics Program <i>Jonathan Celiz Glorial & Rosemarie Galvez Felimon</i>
1205 - 1225	Effects of the Use of Higher Order Thinking Mathematics Module Approach on Primary School Pupils' Performance <i>Noorashikim Noor Ibrahim, Ahmad Fauzi Mohd Ayub, Aida Suraya Md. Yunus & Rosnaini Mahmud</i>
1230 - 1250	Implementation of HOTS in Mathematics: Through the Perspective of Teachers <i>Norliyah Sulaiman & Ahmad Fauzi Mohd Ayub</i>

Venue: Math Lab 2	
1140 - 1200	Exploring the Knowledge Gap in Learning Numeracy before Formal Schooling in Malaysia <i>Santi Sinnakaudan & Munirah Ghazali</i>
1205 - 1225	Effects of Computer Generated Instructional Materials (CGIM) in Students' Performance in College Geometry: An Action Research <i>Roberto G. Sagge, Jr. & Salvador P. Bacio, Jr.</i>
1230 - 1250	Enhancing Conceptualization of Form 4 Students (Visually Impaired) in Optic Geometry Using KoNar Kit <i>Ismail bin Hj. Raduan, Nor Ruzaini binti Jailani, Afiq Najmi bin Jamsari, Saiful Annear bin Baharudin, Nur Amirah binti Che Adnan & Nur Hidayah binti Mohamad</i>

Parallel Session 6

Day 3: 16 November 2017 (Thursday), 1415 - 1530

Venue: Penang Room 1	
1415 - 1435	Promoting Sustainable Development Goals through Nature Education <i>Lee Shok Mee & Teh Kim Hong</i>

1440 - 1500	Comparing Knowledge and Attitude towards Mangrove Ecosystem Between Students Living in Mangrove Ecotourism and Non Mangrove Ecotourism Area in Northern Sumatra, Indonesia <i>Dian Arisandy Eka Putra Sembiring, Ely Djulia & Syarifuddin</i>
1505 - 1525	Foundation Students' Perceptions toward Using Graphing Calculators in Teaching and Learning Differentiation Topic <i>Chien Tiew Mee</i>

Venue: Penang Room 2

1415 - 1435	Learning through Community-based Project: Enhancing Undergraduate Students' Creativity on Natural Chemistry Products <i>Thanyanan Sripanlom, Kulthida Nugultham & Nantarat Krua-In</i>
1440 - 1500	Promoting Environmental Practices among Lower Secondary School Students through Green Physics Project-Based Science during Non-Formal Learning Environment <i>Mohd Norawi Ali, Noor Nadiah Binti Mohd Nasir & Mohd Ali Samsudin</i>
1505 - 1525	The Influence of OBTL Anchored Computer-Assisted Instruction on Students' Conceptual Understanding of Covalent Bonding and Molecular Structures: Philippines Setting <i>Nathalie L. Daminar & Jocelyn R. Locaylocay</i>

Venue: Singapore Room

1415 - 1435	Issue Based Green Chemistry Experiments: An Approach to Teach Rate of Reaction <i>Kumareson Matahanasegaran & Mageswary Karpudewan</i>
1440 - 1500	Embedding Multiple Modes of Representation in Chemistry Writing Task <i>B. Nilavathi & Mageswary Karpudewan</i>
1505 - 1525	Get Activated with Green Chemistry: Activity Theory based Green Chemistry Labs in Matriculation Chemistry Curriculum <i>Yvonne Kulandaisamy & Mageswary Karpudewan</i>

Venue: Brunei Darussalam Room

1415 - 1435	Investigating Higher Order Thinking Skills of Form Four Science Stream Students <i>Chang Fui Seng & Mageswary Karpudewan</i>
1440 - 1500	Establishing a Model on the Influence of Executive Function of the Brain on Form Five Students' Acquisition of Physics Concepts <i>Bala Murali Tanimale & Mageswary Karpudewan</i>

1505 - 1525	The Relationship Between Executive Functions and Physics Metacognition <i>Mohd Nor Syahrir Abdullah & Mageswary Karpudewan</i>
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Venue: RECSAM Auditorium	
1415 - 1435	Hypothesis Testing and "T" For 3 Variables <i>Benny Kong Tze Loong & Chi Nyuk Hiong</i>
1440 - 1500	Promoting Mathematical Thinking through Outdoor Study <i>Teh Kim Hong & Lee Shok Mee</i>
1505 - 1525	Junior and Senior High School Mathematics Teachers' Beliefs and Attitudes about the Mathematics Curriculum under the K to 12 program: Implications for Staff Development <i>Pedro L. Montecillo Jr.</i>

Venue: Thailand Room 1	
1415 - 1435	The importance of Pedagogical Content knowledge as a focus of secondary science teachers' Professional Learning Community <i>S M Hafizur Rahman</i>
1440 - 1500	Assessment of the Implementation of the Grade 7 of the K to 12 Science Standards <i>Reah Ann A. Torres</i>
1505 - 1525	Germ Cell Development and Sexual Maturation of the Mud Clam, <i>Anodonta edentula</i> , in Guimaras Island, Philippines <i>Milessa H. Arganoza</i>

Venue: Thailand Room 2	
1415 - 1435	An Exploration of Primary Mathematics Teachers' Reflection on their Teaching Practices <i>Bathmasree Nagendrarao & Gnambigai Ramanathan</i>
1440 - 1500	Levels of Cognitive Development and Mathematics Performance of Junior High School Students <i>Paul John B. Ongcoy</i>
1505 - 1525	Development and Production of Computer Generated Instructional Materials for College Geometry <i>Roberto G. Sagge, Jr. & Salvador P. Bacio, Jr.</i>

Symposium 1 – Social Scientific Issues

Day 1: 14 November 2017 (Tuesday), 1130-1300

Venue: SEAMEO Hall

Implementation of Infectious Diseases Based Socioscientific Issue (IDSSI) Activities in Primary Schools
Chan Lang Hiong & Mageswary Karpudewan

Employing Web-Based Climate Change Activities to Enhance Knowledge about Climate Change, Attitudes towards the Urgency of Climate Change and Attitudes towards School Science among Year Six Students
Dhanaletchumy Vengitraman & Mageswary Karpudewan

Reviewing the Existing Frameworks of Disaster Risk Reduction and Resiliency Education (DRRRE): The Case of Japan, Philippines and Some Asia-Pacific Countries
Ian Phil Canlas & Mageswary Karpudewan

Interactive Web-based Climate Change Education in Lower Secondary Schools
Kasturi Chandrakesan & Mageswary Karpudewan

The Effectiveness of Integrating Solid Waste Disposal and Management Based Socio-Scientific Issues Activities into Primary Science in Improving Knowledge and Promoting Character and Values
Vijaya Subramaniam & Mageswary Karpudewan

Fostering 21st Century Scientific Literacy Through Socio-Scientific Issues Integrated Science Lesson
Rainee Velamuthu & Mageswary Karpudewan

Exploring Pre-Service Teachers' Development of Argumentation Skills and Knowledge upon Progressive Exposure to SSI-Based Projects
Rajeswari Vellu Pillai & Mageswary Karpudewan

Symposium 2 – STEM

Day 2: 15 November 2017 (Wednesday), 1130 – 1300

Venue: SEAMEO Hall

STEM for Girls: Capacity Development Programme to Develop a Gender Sensitive STEM Curriculum
Nur Jahan Ahmad

A Model of Interest in STEM Careers among Secondary Schools Students
Lilia Halim, Norsharani Abd Rahman, Lilia Ellany Mohtar, Kamisah Osman, Zanaton Ikhsan, Zaila Abd Wahab & Zuria Mahmud

Impact of New Technological Innovation on Australian Secondary Science Teachers
Wan Ng

STEM-Flipped Classroom: An Approach to be Implemented in Chemistry Lessons
Juliamira Razid & Mageswary Karpudewan

Ethics and Human Values Based S.T.E.M Education: Humanising S.T.E.M for Sustainable Education
Suma Parahakaran, Ng Khar Thoe & Ooi Li Hsien

Quiet Disaffection in Mathematics Among STEM High-Ability Students
Joseph Simon Villarba Madrinan & Aris Larroder

Symposium 3 – Blended Learning

Day 3: 16 November 2017 (Thursday), 1130 – 1300

Venue: ICT Lab 1

Developing Sustainable Education Models in Blended-learning Platforms to Promote STEM and Environmental Literacy with Life Skills Development

Ng Khar Thoe, Lay Yoon Fah, Suma Parahakaran & Pedro Lucis Montecillo

Learning Computational Thinking through a Collaborative Mobile Serious Game

Victor Patrick G. Tañedo

Investigating Conservation of Energy through Module Oriented Programs that Promote Moral Values among Students in Social Learning Platforms

Ch'ng Yeag Soon, Ling Jia Yi & Omar bin Abdul Rashid

Increasing Attention of Primary Learners about Global Warming using STEM Problem-Based Learning on Renewable Energy

Nur Fitriana & SEAQIM

Exploring the Concepts of Sustainable Energy through Chemistry Curriculum Teaching Supported by Blended Learning Platform

Tan Phei Ling & Loh Poh Ai

Development of Touch n Clean Tool Integrating Sustainable Energy Concepts

Zariah bt. Zainal, Mahmud Pa'ad b. Yusoff, Khairul Anisah bt. Abdul Hamid & Mohd. Khairulnuar b. Mohd. Habib

Promoting Independent and Active Learning of Science among Primary School Students in a Technology-Integrated Flipped Classroom

Lee Sze Yean & Lee Devonn

Development of Sustainable Future Living Model that Promote Environmental Literacy and Life Skills in Technology-Enhanced Learning Programmes

Chin Chee Keong, Lay Yoon Fah & Ng Khar Thoe

Promoting a Project-Based Learning towards Developing Students based on the Philosophy of Sufficiency Economy

Natthasurachet Promsing & Karnchanaphan Phromsing

Examining Teachers' Preparedness to Switch Code in Teaching: A Reflective Study to Promote STEAM and Digital Literacy

Ooi Li Hsien, Suma Parahakaran, Arathai Din Eak & Ng Khar Thoe

Video-Based Learning in Chemistry Education: Issues and Challenges

Corrienna Abdul Talib, Nazratul Saadah Baharuddin, Marlina Ali, Ng Khar Thoe & Rainer Zawadzki

Display of Digital Poster (Looped)

(S) Developing STEM Literacy and Global Citizen-Ship through Curriculum and Co-Curriculum

Activities Integrating Technological Tools

Chang Jook Ee, Khu Peng Peng & Nor Aznida bt. Mohamad

(S) Development of Life Skills among Secondary Learners Supported by Digital Learning Platforms

Teoh Chui Khim, Ooi Keat Chuan, Kartina Sari bt. Abdul Karim & Tan Hooi Ling

(S) Evaluating Digital Literacy among Secondary Learners through Technology-Enhanced Learning Activities in Sustainable Ways

Lim Lay Hong, Lim Hooi Hai, Lim Lay Lee, Yap Choon Yeen & Quah Li

(S) Leveraging on Use of Digital Tools and Blended Learning Platforms to Promote Essential Skills Considering Cybersecurity

Ling Ah Hong

(M) Creative Mathematics Education Supported by Digital Tools that Enhance STEM Literacy and STEM Related Careers

Ryohei Miyadera

Poster Presentation (Non-Digital)

Day 3: 16 November 2017 (0930 – 1030)

Venue: SEAMEO Hall Foyer

(S) Implementation of Project-Based Learning Integrated STEM to Improve Science and Environmental Literacy, and Encourage Student's Entrepreneurship

Syahriyati

(S) Impact of Ethics and Values-Based Teaching Model (VBA model) using STEM Education for Science and Mathematics in a Malaysian Primary School

Subhashini Balan & Suma Parahakaran

(S) Eliciting Pedagogical Content Knowledge of Pre-Service Science Teachers using the Interview about Instances Technique

Duangjan Kaewkongpan, Nantarat Kruea-in & Tussatrin Wanagatesiri

(S) Problem-solving skills test in the basic Chemistry course integrated STEM education

Kridsana Poungraya, Kulthida Nugultham & Tussatrin Wanagatesiri

(S) Assessing Sixth Grade Students' Understanding and Transferring Concepts of Matter an Everyday Substance

Piyawan Sa-ard, Tussatrin Wanagatesiri & Kulthida Nugultham

(S) Development of Practical Work Using Inquiry Based Learning for Qualitative Analysis of Organic Compounds

Udomdeja Polyiu, Tussatrin Wannagatesiri & Kulthida Nugultham

(S) Science Teachers' Belief about Purposes of Learning Science

Kanlayaphad Jarupreedephad & Tussatrin Wanagatesiri

(S) The Development of Scientific Explanation and Science Process Skills Assessment

Jitwika Somjai, Kul-thida Nugultham & Nantarat Kruea-In

(S) The Use of STEM Activity on Work and Power Lesson to Develop a Problem Solving Skills for MathayomSuksa 3 Students (Grade 9 Students)

Seksan Sansorrapisut

(S) Liquid Fuel Production from Biomass Tar by Hydrogenation: A Study Conducted in STEM related career with environmental concerns

Moe ThandaKyi and Reiji Noda

(S) Evaluation of sustainability education by blended learning in teacher training

Chin Chee Keong, Hairiah bt. Munip, Lee Sze Yien and Jessie B. Aquino

(S) COCO CANDLE : Waste to Wealth Application of Renewable Energies for a Better Life

Mohd Zuki Mat Zin

(S) 'STEM ASEAN – Endangered species project' as an initiative towards more effective STEM learning

Norlizwatybt.Baharin

(S) Southeast Asia Basic Education Standards (SEA-BES) Common Core Regional Learning Standards (CCRLS) in Science: A Tool for Enhancing STEM Education

Dominador Dizon Mangao & Nur Jahan binti Ahmad

(M) By HLM to Exploring the School Factors, Teacher Factors and Student Factors Impacted on 8-grade Students' Mathematics Achievement in Taiwan

Fang-Chung Chang

(M) Enhancing Students' Ability to Cultivate STEM-Based Innovative Output Using Low Cost Materials Supported by Blended Learning Platform

Mahandran Govindaraj

(M) South East Asia Basic Education Standards (SEABES) Common Core Regional Learning Standards (CCRLS) in Mathematics- Phase 1

Pedro Lucis Montecillo & Teh Kim Hong

(M) Students' performance in mathematics literacy in Indonesia, Malaysia and Thailand: Highlights and challenges

Sri Rahayu

Workshops

Day 1: 14 November 2017 (Tuesday), 1530-1730

Venue: Various Rooms

WORKSHOP 1 (Mathematics Lab 2)

Unknows, Lines and Understanding

Pumadevi Sivasubramaniam, Nurul Shahhida Abu Bakar, Foong Gek Leng & Wong Jian Ming

WORKSHOP 2 (ICT Lab 1)

Game Show Classroom

Fazzlijan Mohamed Adnan Khan

WORKSHOP 3 (ICT Lab 2)

Launching Innovation in Classroom: STEMA- IoT

Kalaivani Chellappan

WORKSHOP 4 (Science Lab 2)

Using Microscale Practical Work to Promote Effective Learning

Ravin Charan Suri & Chua Hui Yen

WORKSHOP 5 (Penang Room 1)

Independent Learning of Integration Techniques in Mathematics for Pre-University Students

Thiruchelvoam Kandaiah, Mohd Uzi bin Dollah & Aw Ying Juan

WORKSHOP 6 (Penang Room 2)

Socio-Scientific Issues (SSIS): A 21st Century Pedagogical Approach in Teaching and Learning of Science

Chan Lang Hiong, Kasturi Chandrakesan, Rajeswari Vellu Pillai, Vijaya Subramaniam, Rainee Velamuthu & Mageswary Karpudewan

Day 2: 15 November 2017 (Wednesday), 1530-1730

Venue: Various Rooms

WORKSHOP 7 (Science Lab 2)

Workshop on Renewable Energy

Yuji Otsuka

WORKSHOP 8 (ICT Lab 1)

Using GeoGebra 5.0 to Create and Explore 3-D Geometrical Shapes

Warabhorn Preechaporn

WORKSHOP 9 (ICT Lab 2)

Internet of Things (IoT), Social Media and Android Apps for Productivity & Work Quality Improvement

Baharulnizam Baharum

WORKSHOP 10 (Math Lab 1)

Ethics and Human Values in Science, Technology, netEconomy and Society

Suma Parahakaran, Ng Khar Thoe & Ooi Li Hsien

WORKSHOP 11 (Penang Room 2)

Creative Science Teaching

Ravin Charan Suri & Chua Hui Yen

WORKSHOP 12 (Penang Room 2)

By Casio Singapore Pte Ltd

Day 3: 16 November 2017 (Thursday), 1530-1730

Venue: Various Rooms

WORKSHOP 13 (RECSAM Auditorium)

Innovative Use Smartphone for Scientific Investigation

Toh Siew Wei, Sadiyah Baharom & Lee Tien Tien

WORKSHOP 14 (Science Lab 2)

Green STEM and Green Chemistry Experimentations in Secondary Level Chemistry Curriculum

Yvonne Kulandaisamy, Kumareson Matahanasegaran, Komala Thanimalai, Chang Fui Seng & Mageswary Karpudewan

WORKSHOP 15 (ICT Lab 1)

Using Technology to Abridge the Evaluation Phase of Student Learning

Jasper L. Pastrano, Naci John C. Trance & Lauro E. Estecomen

WORKSHOP 16 (ICT Lab 2)

Cases for Applying the iMVT Science Learning Model

BaoHui Zhang

WORKSHOP 17 (Penang Room 1)

Early Engineering for Primary Science Teachers

Rose Annah Abd Rauf

WORKSHOP 18 (Penang Room 1)

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Sarva Brenda