



THE 7TH International **STEM** Education Conference 2022

July 6-8, 2022
Sukhothai, Thailand





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The 7th International STEM Education Conference

July 6-8, 2022

@ Sukhothai, Thailand

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(iSTEM-Ed 2022) www.istem-ed.com
July 6-8, 2022 Sukhothai Treasure Resort & Spa,
Sukhothai, Thailand**

July 6, 2022			
09:00-12:00	Conference Registration (Chuan Chom Meeting Room)		
13:30-16:30	Student Project Presentation (Fuangfa Meeting Room)		
16:30-17:30	EEAAT Meeting		
18:45-21:30	Welcome Reception (Fuangfa Meeting Room)		
July 7, 2022			
08:00-10:00	Conference Registration (Grand Ballroom)		
Parallel papers session # 1			
Room	Meeting Room I	Meeting Room II	Meeting Room III
Time	Session Chair : Asst.Prof. Dr.Supattana Nisukkanaporn (RSU)	Session Chair : Dr.Witcha Upaphai, Co-Chair : Kamonphop Meepaen (RMUTP)	Session Chair : Asst.Prof. Wittarit Khotmanee (RMUTSB)
8:00-8:15	P02326	P02323	P02342
8:15-8:30	P02359	P02375	P02351
8:30-8:45	P02328	P02363	P02335
8:45-9:00	P02346	P02331	P02371
9:30-9:45	Coffee/Tea Break		
Plenary Session (Grand Ballroom)			
Opening Ceremony			
10:00-10:30	Opening Ceremony by Assoc. Prof. Dr. Nattachote Rugthaicharoencheep Vice-President for Academic Affairs and Faculty Development, Rajamangala University of Technology Phra Nakhon, Thailand Assoc. Prof. Dr. Athikom Roeksabutr President, Electrical Engineering Academic Association (Thailand)		
10:30-11:00	Keynote Lecture "Public Policy, Economics and Higher education" Prof. Jay K. Rosengard Director of the Harvard University		
11:00-11:30	Keynote Lecture "Technology Innovation and Education Reform" Prof. Hang Lee Department of Business Administration, College of Management, National Kaohsiung University of Science and Technology		
11:30-12:00	Keynote Lecture "A sustainable future: Eco-design and Product Service Systems (PSS)" Prof. Mattias Lindahl Environmental Technology and Management, Department of Management and Engineering, Linköping University		
12:00-12:15	KMITL and EEAAT MOU signing ceremony		
12:15-13:30	Lunch		

13:30–16:30	Workshop “Collect, Understand and Publish” (Chuan Chom Meeting Room)		
Parallel papers session # 2			
Room	Meeting Room I	Meeting Room II	Meeting Room III
Time	Session Chair : Prof.Dr.Prayoot Akkaraekthalin (KMUTNB)	Session Chair : Dr.Umpaporn Peerawanichkul (RMUTP)	Session Chair : Dr.Thaweesak Trongtirakul (RMUTP)
13:30–13:45	P02324	P02355	P02327
13:45–14:00	P02345	P02334	P02368
14:00–14:15	P02362	P02344	P02354
14:15–14:30	P02365	P02353	P02337
14:30–14:45			P02349
14:45–15:00	Coffee/Tea Break		
Parallel papers session # 3			
Room	Meeting Room I	Meeting Room II	Meeting Room III
Time	Session Chair : Asst.Prof. Patthaporn Langprayoon, Co-Chair : Nednipa Jiemsak (ASU)	Session Chair : Dr.Jirawadee Polprasert (NU)	Session Chair : Dr.Thaweesak Trongtirakul (RMUTP)
15:00–15:15	P02360	P02332	P02347
15:15–15:30	P02370	P02348	P02352
15:30–15:45	P02350	P02333	P02330
15:45–16:00	P02367	P02361	P02329
18:30–21:30	Farewell Dinner (Best paper awards, Student Project Presentation Award Ceremony), Introduction to iSTEM-Ed 2023 (Grand Ballroom)		
July 8, 2022			
Focus Group Discussion in STEM Education			
Time	Group 1 Meeting	Group 2 Meeting	Group 3 Meeting
9:00–12:00	See information at the registration desk	See information at the registration desk	See information at the registration desk
Conference Close			

Technical Session # 3	
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Learning Management using Lessons Online in Pulse and Switching Circuits Subject for Vocational Certificate Students

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Abstract

This purpose of this research was: 1) to create lessons online using google site based on the ADDIE model in pulse and switching circuits subject, 2) to test efficiency of the lessons online using google site in pulse and switching circuits subject, 3) to compare the learning achievement before and after learning with the developed lessons online and 4) to assess satisfaction of student with lessons online using google site based in pulse and switching circuits subject. The Sample groups of the research were 32 the first-year students with a vocational certificate in the Department of Electronic Technical, Nakhonnayok Technical College, research tools include lesson plan, online lesson, achievement test and students' satisfaction form. The research results shown that 1) the efficiency of the developed learning management using lessons online had the efficient of 76.92/75.23 higher than the 75/75 criteria, 2) The learning achievement of the learners was significantly higher than

before learn at the .05 level. and 4) the students had a high level of satisfaction on learning management using lessons online (mean is equal to 4.42 and standard deviation is equal to 0.16).

Keywords—ADDIE model, Google Site, Lessons Online, Yager, Vocational Certificate

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Present this certificate to

Pichit Uantrai, Jakkrit Benjamaha, Pornwilai Sukmak

**Learning Management using Lessons Online in Pulse and Switching Circuits Subject for
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in recognition of successful presentation and research contributions to
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