



Research and Development of E-Learning Innovation in Electrical and Electronics Sciences

Asst.Prof.Dr. Sirilak Hanvatananukul

Research and Development of E-Learning Innovation in Electrical and Electronics Sciences



To research and develop online learning innovations in electrical and electronics fields.

Research in Online Teaching and Learning

- To study and compare the expectations average for online learning in electrical and electronics fields of undergraduate students in vocational and technical education in Indonesia, Thailand, and Vietnam.
- To study and compare the online learning verity average in electrical and electronics fields of undergraduate students in vocational and technical education in Indonesia, Thailand, and Vietnam.
- To study and compare between the expectations average and verity average for online learning in electrical and electronics fields of undergraduate students in vocational and technical education in Indonesia, Thailand, and Vietnam.



To design and create innovative prototypes, theoretical online learning and practice in electrical and electronics

Model of Online Teaching and Learning Innovation

- Develop a theoretical and practical online teaching model.
- Develop measurement and evaluation models of the theoretical and practical online teaching.
- Develop teaching materials; Online lessons, Mobile Application, YouTube, Computer Games, Simulation, Virtual Measuring Instrument.



To assess the quality of innovation, theoretical and practical online learning in electrical and electronic fields.

Evaluation of Innovation

- Evaluated by a group of innovative design experts; content, and teaching materials.
- Compare the opinions average of experts in Indonesia, Thailand, and Vietnam.