

## Animated Online Teaching Material Development for First Year Fundamental

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Abstract:

Facing the challenges from tertiary education restructuring and students with inadequate science and technical education background, there is an unenviable need to assist first year engineering students who are weak in such aspect. Aligning with the mission of CityU to deliver quality teaching and learning, an animated teaching material development project is proposed for freshman Fundamental Electronics Circuit courses. Structure of the proposed materials is designed under the OBTL framework with respect to the CILOs of targeted courses.

The proposed work integrates the active learning approach with problem basic learning methodology. It starts with basic concept introduction followed by animated examples of applying the learnt concepts to practical problems to illustrate the essential problem formulation skills, then deepens learner's understanding through online interactive exploration and reinforces the learning with problem solving tutorials. Under the CityU Blackboard e-learning platform, the developed materials are suitable either to be used by the learner independently without any assistance from the instructors or in traditional classroom learning.

Result of the project will be submitted to The International Conference on Microelectronic Systems Education / European Workshop on Microelectronics Education for publication.