Master's Thesis Defense Announcement

An Automated and Remotely Operated Siphon System for Flood Control

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Date: Thursday, April 26th, 2018

Time: 1:00 pm – 3:00 pm

Location: Materials Lab (Engineering Building 2, Room E132)

Committee Members: Dr. Arturo S. Leon (Chair), Dr. Keh-Han Wang, Dr. Stacey Louie

Abstract

Floods are natural disasters in the world with significant affects enhanced by human activities in addition to climate change and increasing rainfall. In this thesis, siphon is used as a water releasing system from a wetland. It focuses on making storage available before a heavy rainfall. The proposed siphon system can be operated remotely and it is relatively inexpensive compared to other water releasing systems like pumping water from wetlands. It is solar powered and does not require a large amount of energy. The water level is controlled using sensors so that the siphon system is ready to use at all times. This proposed siphon may help to mitigate flooding damage by allowing water release ahead from wetlands or shallow ponds.