



The Hong Kong University of Science and Technology

Department of Mathematics

Seminar on Applied Mathematics

**Land reclamation and its impacts in the Yellow and
East China Sea**

by

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Abstract

In recent decades, land reclamation around the world's ocean has reached new heights as a consequence of significant economic expansion in the coastal zones, especially in the Asia-Pacific region. For example, between 1949 and 2012 reclamation has already turned approximately 13,022 km² of coastal wetland and tidal flats into industrial and farming lands, more than 55% of the total coastal wetland in the Bohai Sea, Yellow Sea and East China Sea (BYECS). On a regional scale, Jiaozhou Bay, Qingdao, China, is typical of a coastal area suffering from severe land reclamation. The alteration in the coastline caused by land reclamation from 1935 to 2008 has led to a decrease in the area of tidal flats by over 30%. Many studies have been conducted to examine local changes as a result of reclamation in tides, which in turn affect sediment transport patterns. However, little is understood as to how reclamation may induce far-field effects on the sea level changes. In this talk, I will use three case studies to demonstrate both local and far-field effects on tides in BYECS region caused by severe tidal flat reclamation and artificial island building activities.

Date: Tuesday, 18 December 2018
Time: 2:30p.m. – 4:00p.m.
**Venue: Room 5506, Academic Building,
(Lifts 25-26), HKUST**

All are welcome!