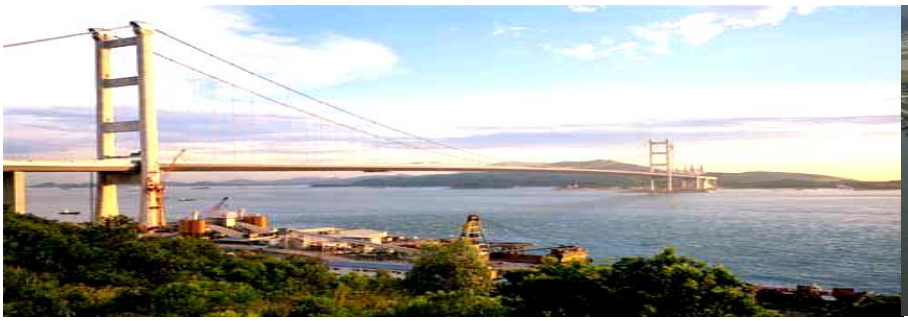
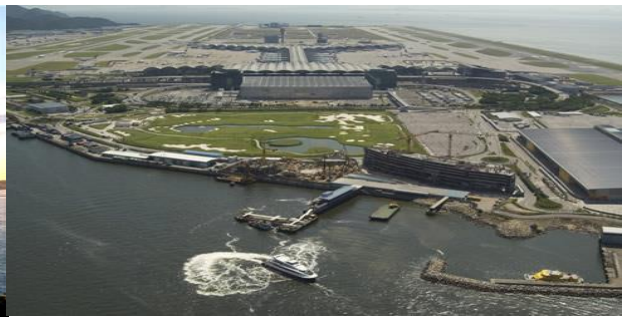
THE HONG KONG POLYTECHNIC UNIVERSITY
香港理工大學

DEPARTMENT OF CIVIL AND ENVIRONMENTAL ENGINEERING
土木及環境工程學系
CEE





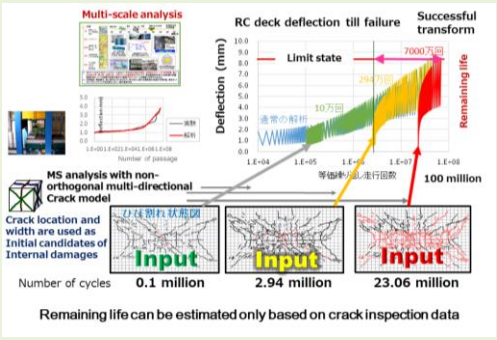
Life-Cycle Assessment of Concrete Bridges and Management

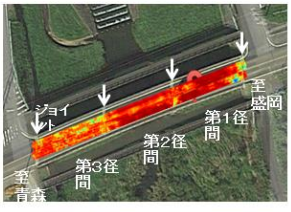
Prof. Koichi Maekawa (前川宏一)

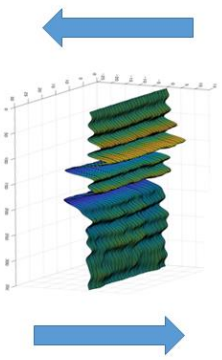
Professor, Yokohama National University
Emeritus Professor, The University of Tokyo

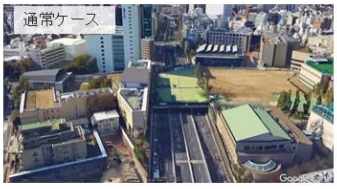
ABSTRACT

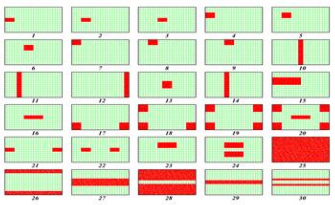
Assessment method of remaining life of concrete bridge decks is presented under heavier traffic loads in use of site-inspections and life simulation technology for strategic infra-stock management. For diagnosis of facilities, data assimilation is introduced with structural concrete's mechanics of high nonlinearity. This system is being installed in the road and infrastructure authority jointly. In order upgrade the system efficiency, the machine learning by applied neural network is installed for elevated cost performance.











Date: 22 March 2019

Time: 2:30 p.m. – 3:30 p.m.

Venue: Room Z409, 4th floor, Block Z, The Hong Kong Polytechnic University, Hung Hom, Kowloon

SPEAKER'S BIOGRAPHY

Professor Koichi Maekawa graduated from The University of Tokyo in 1980 and earned his doctorate degree in 1985. His study of 1980s was nonlinear mechanics of reinforced concrete and were one of developers of the world-first self-compacting concrete in 1988. After his service at Asian Institute of Technology, he has been developing the multi-scale chemo-physics modeling of structural concrete since 1990. Prof. Maekawa steered the national project on infrastructure maintenance and management for the past 5 years.

Prof. Maekawa served as a Vice President of Japan Society of Civil Engineers and currently a Chairman of Concrete Committee which is responsible for code specification of concrete design and work. He is a member of Science Council of Japan and the vice-Chair of Civil and Architecture Committee. He is a chief developer of computer codes named WCOMD and DuCOM-COM3, and optional modeling id circulated though DIANA. His current projects are fatigue of bridges, seismic analysis of underground facilities, fire protection and durability mechanics of cementitious composites.

***** All Interested Are Welcome *****

For further information, please contact Prof. J.G. Dai at Tel. 27666026

Free Admission. Please reserve your seat with Dr. Y.S. Wang by email: yswang@polyu.edu.hk

Certificates of attendance will be provided to participants if they attend the whole lecture.