THE UNIVERSITY   **OF HONG KONG**

DEPARTMENT OF MECHANICAL ENGINEERING

SEMINAR

Title: Self-contained Soft Sensing coupled with learning-based computation

Speaker: Mr. Mak Chi Hin (MPhil candidate)
Department of Mechanical Engineering
The University of Hong Kong
Hong Kong

Date: 27 April, 2021 (Tuesday)

Time: 2:00 p.m.

Zoom Link: 1)   Link to join the meeting:

https://hku.zoom.us/j/95071412596?pwd=ZEpyZDk4MitpQnZJUHpsaHdtT3lvZz09

2)   Meeting ID: 950 7141 2596

3)   Password: 276359

Abstract:
Proprioception, the ability to perceive spatial information and neighboring objects, has no longer been a critical difference between robot and biological living. Robot equipped with advanced sensing intelligence can capture sufficient knowledge of its state as feedbacks in a closed-loop control system. Such ability pushes forward modeling for nonlinear kinematics, in particular for soft robots with theoretically infinite degrees of freedom. To achieve accurate, repeatable and robust sensing, finite element analysis (FEA) is extensively utilized due to its promising explanation of real-world physics. In this seminar, we will brush up on the development of soft sensor in recent years, further with a discussion on its challenges and potential applications. The confluence of FEA-based modeling with prevalent artificial intelligence (AI) will also be covered as a next-generation sensing approach.

ALL INTERESTED ARE WELCOME
For further information, please contact Dr. K.W. Kwok at 3917 2636.

Research area: Robotics and Control