THE UNIVERSITY OF HONG KONG

DEPARTMENT OF CIVIL ENGINEERING

SEMINAR

Electrically Regenerated Deionization Processes and Applications

Professor Q Shiang FU
Sichuan University Suzhou Research Institute

Date: March 15, 2023 (Wednesday)
Time: 4:15 p.m. - 5:15 p.m.
Venue: Room 632C, 6/F Haking Wong Building
The University of Hong Kong

Abstract
As the world faces increasing challenges in sustaining water supply and quality, membrane processes play more important roles to meet these challenges. Other than commonly used reverse osmosis and electrodialysis, membranes made of anion and cation exchange materials can be used to (selectively) remove ions from the water. In this process high removal and selectivity can be achieved by the valence of the ions present and the voltage applied. Water flows between the water splitting membranes and exit as purified water. The advantage of this process is less energy as water flows between the membranes rather than across and the membrane endures less fouling and has long life span. In addition, electrical driven process possesses disinfection effect through hydroxyl radicals and other electro-oxidation processes. Some water purification cases will be discussed.

About the Speaker
Dr. Shiang Fu received both his M.S. and PhD degrees in Environmental Engineering from The University of Michigan in Ann Arbor. Currently Dr. Fu is a Chair Professor at Sichuan University Suzhou Research Institute. His research interest is in electrical driven membrane processes for water purification and water reuse.

Dr. Fu did postdoctoral research at Stanford University with Professor Perry McCarty and Professor James Leckie. He then worked as a Research Associate at Stanford, focusing on membrane application for water reuse and environmental biotechnology for wastewater treatment. Dr. Fu held Chair Professorship in the Chinese Academy of Sciences and visiting professorship and directorship positions in several universities in China.

- ALL ARE WELCOME -

CYT/plt