

## **Woh Hup Distinguished Lecture**

You are cordially invited to a Lecture organized by Department of Civil and Environmental Engineering

# Membranes for Water, Energy, and a More Sustainable World

by

#### Woh Hup Visiting Chair Professor Chuyang Y. Tang

Department of Civil Engineering The University of Hong Kong

Date: Wednesday, 16 November 2022 Time: 6:00pm to 8:30pm (Pending PDU)

Click here or scan QR code below to register:



#### Venue:

National University of Singapore 10 Kent Ridge Crescent Singapore 119260 LECTURE THEATRE 2 (LT2)

\*\*\*Seats are limited. Please register early. All are welcome and admission is free\*\*\*

#### **Abstract**

Membrane separation technology is increasingly used for water and energy related applications. Pressure-driven membrane processes, such as microfiltration (MF), ultrafiltration (UF), nanofiltration (NF), and reverse osmosis (RO), have received great attention, fueled by the increasing needs for water purification, wastewater treatment and reclamation, and seawater desalination. In parallel, many novel membranes and membrane processes are being developed. In this talk, Prof. Chuyang Tang will share his personal journey in the amazing membrane world. The talk includes two parts. The first part will introduce some exciting developments in RO and NF membrane materials and structural designs. Fundamental insights into membrane transport through RO and NF membranes will be highlighted, which translates into effective strategies for overcoming the longstanding permeability-selectivity upper bound. In the second part

of the talk, Professor Tang will highlight some interesting innovations in other membranes and membrane processes and their applications in water reuse, seawater desalination, energy production, resource recovery, and beyond.

### Speaker's Biography



Chuvang Y. Tang is a Professor of Environmental Engineering at the University of Hong Kong. He obtained his PhD degree from Stanford University and has 20 years' experience in membrane technology, water reuse, and desalination. Professor Tang is a Clarivate Highly Cited Researcher. He has published more than 300 journal papers, with a total citation of >32,000 and H-index of 96 according to Google Scholar. He serves as a co-editor of Desalination, a flagship journal on desalination and water reuse. Professor Tang led the invention of aquaporin-based biomimetic which resulted membranes. in the successful

commercialization of Aquaporin Inside Membranes (AIMs®) by Aquaporin Asia Singapore. His R&D has received many prestigious awards and recognitions, such as the inaugural RGC Senior Research Fellowship, the inaugural HKU Innovator Award, Global Chair of Bath University, Fellow of Royal Society of Chemistry, Fellow of Institution of Civil Engineers, the IDA Water Reuse & Conservation Award for Outstanding Professional, the CAPEES/Nanova Frontier Research Award by Chinese-American Professors in Environmental Engineering & Science, the Singapore Ministry of National Development R&D Merit Award, the Finland Distinguished Professor Program Fellowship, and the International Desalination Association Fellowship. More information about Professor Tang's research can be found at <a href="https://www.membest.hku.hk">www.membest.hku.hk</a>.

## **Programme Itinerary**

| Time               | Agenda   |
|--------------------|--|
| 05:30 pm - 6:00 pm | Registration   |
| 06:00 pm – 7:00 pm | Buffer Dinner and Networking Session   |
| 7:00 pm – 7:05 pm  | Welcome Address by Professor Rajasekhar Bala, Deputy<br>Head - Communication & Engagement, Department of Civil<br>and Environmental Engineering, NUS |
| 7:05 pm - 8:00 pm  | Woh Hup Distinguished Lecture by Woh Hup Visiting Chair<br>Professor Chuyang Y. Tang followed by Q & A   |
| 8:00 pm - 8:30 pm  | Networking Session   |
| 8:30 pm            | End of Programme   |