THE UNIVERSITY OF HONG KONG

DEPARTMENT OF MECHANICAL ENGINEERING

SEMINAR

Online

Title: Bio-inspired directional transport of fluids: from principle to application

Speaker: Miss Yang Ling (PhD candidate)
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Date: 21 April, 2022 (Thursday)

Time: 1:30 p.m. (Hong Kong Time)

Zoom meeting: 1) Link to join the meeting:

https://hku.zoom.us/j/93197705352?pwd=ZHV6UE50VnUwMHRqUkpjSE0rbnZoUT09

2) Meeting ID: 931 9770 5352

3) Password: 799399

Abstract:
The ability to manipulate fluids to transport in a specific direction is of great significance for processes such as water-oil separation, fog collection, and microfluidics. In recent years, spontaneous fluids transport discovered in bio-surfaces with microstructures has evoked great interest for preferential functions and diverse applications. In this seminar, the directional transport of fluids will be presented on three plants, Nepenthes alata, Araucaria leaf, and cactus spines. The focus will be on their structure features, transporting modes, and applications. Furthermore, the physical principles responsible for these phenomena of directional transport will be discussed, including capillary rise, contact line reach, and Laplace pressure.

ALL INTERESTED ARE WELCOME

For further information, please contact Prof. L.Q. Wang at 3917 7908.

Research area: Thermofluids