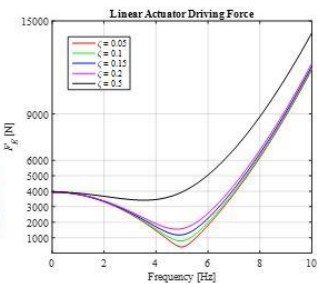
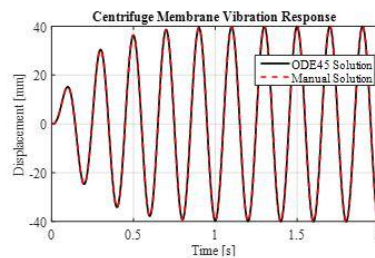
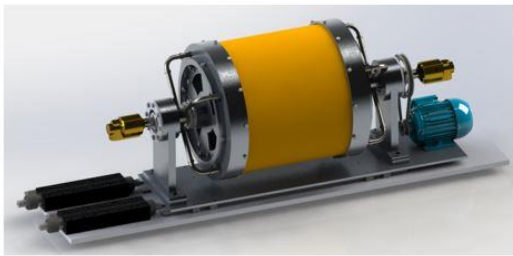


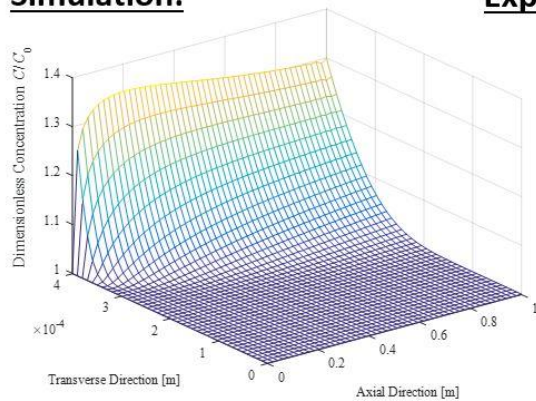
Desalination Research (Xu Su and Wende Li)

Seawater desalination is a promising and important technology especially for coastal countries that lacking fresh water. Seawater desalination applications are still limited by challenges mainly include high energy consumption, membrane fouling and low production rate. We intend to develop a novel desalination technique – centrifuge desalination. Our designed vibration assisted desalination centrifuge is based on the reverse osmosis (RO) membrane. The RO membrane allows pure water to pass through from high concentrated salt water source under high pressure condition. Currently most commercial applications use pumps to generate high pressure. We feed the seawater to a rotating centrifuge to generate required high pressure (80 bar). The objective of this project is to improve the production rate and reduce membrane fouling.

Design:



Simulation:



Experiment:

