HUNG HSIANG, HUANG

COUNTRY OF ORIGIN: Tainan / Taiwan

EDUCATIONAL BACKGROUND:

Sep 2008-June 2012 : Bachelor; Department of Marine Environment and Engineering, NSYSU, Taiwan
Sep 2012-Dec 2014 : Master of Science; Department of Marine Environment and Engineering, NSYSU, Taiwan
Jun 2016-Aug 2017 : Research Assistant; Department of Marine Environment and Engineering, NSYSU, Taiwan
Oct 2017-Expected : M. Sc. Hydroinformatics, IHE-Delft, The Netherlands
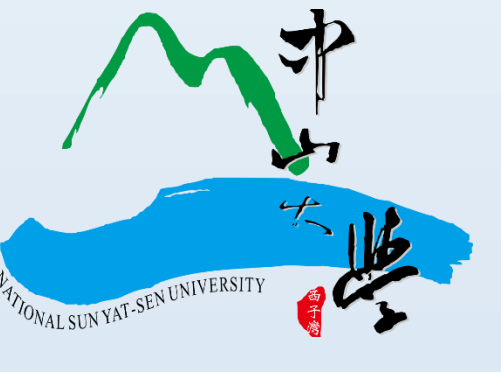
WHY I CHOSE HYDROINFORMATICS:

Based on my strong interest in modelling and my passion to construct a model for my hometown, I joined the research group of Prof. Yu for my master study in Taiwan. My master thesis was studying the interaction of water quality among Love River, Kaohsiung Harbor and the Sea. I used SCHISM for modelling the hydrodynamic and CE-QUAL-ICM for simulating the water quality. I successfully reproduced nutrient dynamics and algal bloom in my modelling area of which my advisor and juries spoke highly. My aspiration was confirmed again through this encouragement. To broaden my horizon and to intensify my capacity of modelling, I am always filled with energy and courage. Therefore, I decided to study hydroinformatics to improve my knowledge of modelling.

HOW I WILL USE THE KNOWLEDGE GAINED IN THE PROGRAM:

Taiwan is a long and narrow island which situated in the conjunction of tropical and sub-tropical area. The seasonal pattern is visible which means that the wet season brings strong rainfall to our country. The highest rainfall was about 1400 mm/day which was caused by the typhoon Morakot in 2009. This powerful typhoon destroyed many infrastructures especially in South of Taiwan and caused many flooding events in many cities. About 700 people were dead during this catastrophe. According to the climate change and the higher probability of extreme climate, I want to learn how to use flood modelling combined with the holistic flood risk mapping to protect my hometown and my country.
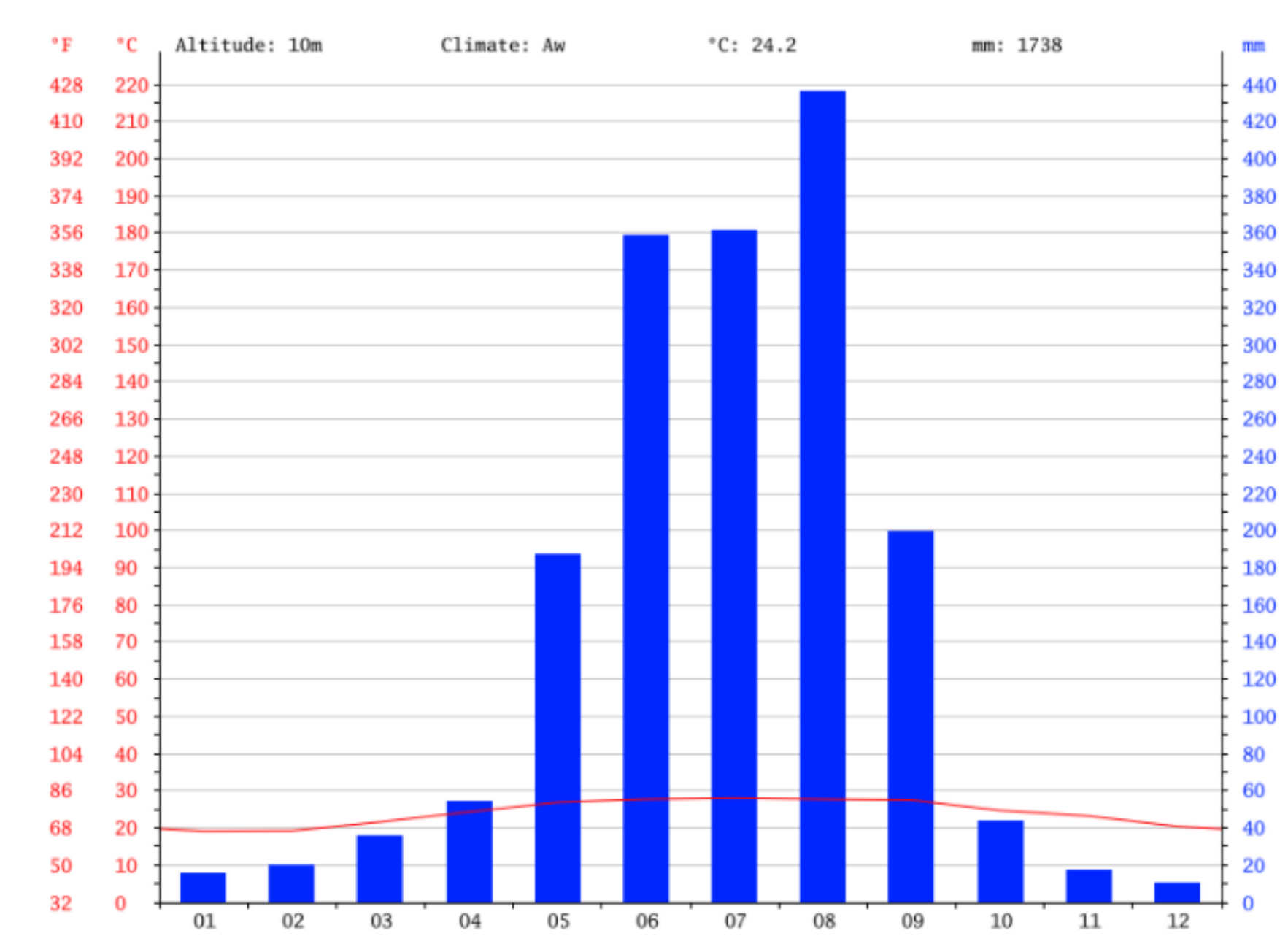
PREVIOUS RESEARCH AND RESEARCH INTERESTS:

I was a research assistant working in National Sun Yat-Sen University in Kaohsiung in Taiwan. My job was doing hydrodynamic modelling and water quality modelling. The modelling tool is SCHISM coupled with CE-QUAL-ICM. My thesis was using water quality model to simulate the interaction between Kaohsiung Harbor and Love River. And a project I conducted was using resident time calculation to improve the water quality in DaPeng Bay in PingDong in South of Taiwan.
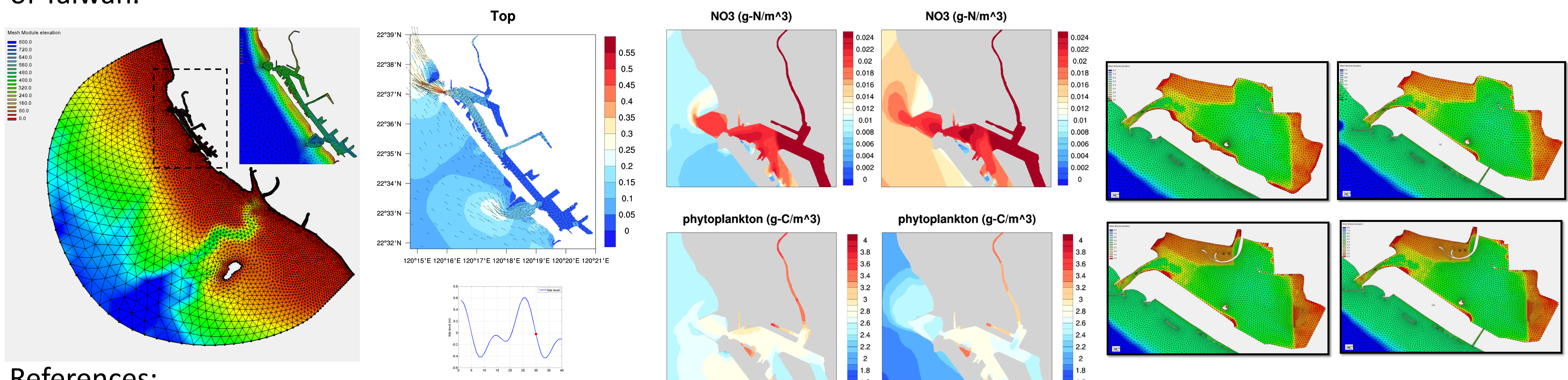
References:

1. National Central Weather Bureau of Taiwan

2. H.H., Huang (2014) : Modeling Nutrient Dynamics in Love River and Kaohsiung Harbor due to Sewerage Diversion. *MAEV Thesis.*

3. H.H., Huang (2017) : Water Quality Improvement Plan in DaPeng Bay. *Final Report.*