



# Hao Chen 陈浩

## Professional Information

**E-mail:** CHEN.HAO@ntu.edu.sg

**Address:** N1-b2a-10, 50 Nanyang Avenue, Singapore, 639798

## Education

09/2009-07/2013

**Bachelor of Ocean Engineering, Tianjin University. Major GPA: 3.52.**

**Major Courses:** Elasticity and FEM, Elastic-plastic Mechanics, Soil Mechanics, Structural Mechanics, Wave Mechanics, Mechanics of Materials, Fluid Mechanics, FORTRAN.

**Undergraduate Thesis:** Calculation and Analysis of the horizontal wave force acting on a small-scale cylinder under different wave theories.

07/2013-01/2016

**Master of Geotechnical Engineering, Tianjin University. Rank: 2/20. Major GPA: 3.5.**

**Major Courses:** Geotechnical Plastic Mechanics, Mathematics and Physical Equation, Computational Soil Mechanics, Soft Foundation .

**Master Thesis:** Finite element analysis of the working behavior of submarine move-in-soil robot based on CEL algorithm.

07/2016-NOW

**Research Associate, Nanyang Technology University**

## Research Experience

1. Participated in the model test about penetration of geo-tubes dike into soft foundation. Simulated the process of the model test based on CEL algorithm and derived a formula describing the relation between the sinking depth and the height of the dike.
2. Participated in the triaxial unloading experiment. Wrote a program by FORTRAN to calculate the pore pressure in saturated clay during unloading process based on the modified Cambridge model.
3. Participated in the research about the influence of artificial hill on High Speed Rail in Tianjin. Researched how to reduce the deformation of high speed rail, simulated the construction process and completed the report.

## Research Experience

4. Participated in the ring shear test to study residual strength during cyclically shearing. Mastered the use of ring shear apparatus.
5. Participated in the model test about the accumulative pore pressure in geo-tube dike under the action of wave force. Prepared the test and measured the pore pressure.
6. Participated in the influence of spudcan penetrating into the seafloor on the piles foundation of dock in Tianjin Port. Simulated the penetration of spudcan into the seafloor and analyzed the influence scope.

## Papers

1. Shuwang Yan, Jing Chen, Liqiang Sun, **Hao Chen**. Calculation method on Penetration of Geo-tubes Dike Resting on Soft Soil Foundation. Rock and Soil Mechanics (EI).
2. Shuwang Yan, Jing Chen, Liqiang Sun, **Hao Chen**, Lin Shu. Calculation method and Model test study on Penetration depth Of the Displacement method. Rock and Soil Mechanics (EI). Manuscript number: 2015-0501. The 12<sup>th</sup> Soil Mechanics Conference. Manuscript number: No. 468.
3. Shuwang Yan, Jinjin Zhang, Yinghui Tian, **Hao Chen**. Experiment and theory research on pore pressure characteristics in saturated clay in unloading conditions. Chinese Journal of Geotechnical Engineering (EI).
4. Shuwang Yan, **Hao Chen**, Zhaolin Jia, Shu Lin, Liqiang Sun. Research on the mechanism and calculation method for pile-run of long and large diameter piles based on energy conservation method. Ocean Engineering (Chinese Core Journal). Manuscript number: 2015272.