

# THAPANAT TREWATCHATRANON

Structural engineer



🏠 99/118 Pimarn chol 2 village, Moo. 9, Bantom Rd,  
Tambon muangkao, Amphor Muang, Khonkean 40000

✉ ttrewatchatranon.17@gmail.com  
☎ Tel. +66 66 145 5491

## PROJECTS

### STRUCTURAL DESIGN ANALYSIS OF BAMBOO IN A WATER TOWER

July 2019 - Dec 2019

#### UNIVERSITY COLLEGE LONDON

The architect and engineer interact with materials and manufacturing processes. Inspired by topology optimisation and structural form-finding by Grasshopper, this project investigates how to use bamboo as minimally as possible to build a load-bearing structure. It compares the bamboo capacities from ISO-22157, ISO-22516, NSR-10-G-12, EN-1995-1-1 and BS-5268-2 for defining the capacity of the structural members to finite element analysis (FEA) simulations to create a tool for designing a water tower.

### CAR PARK PROJECT

Dec 2017 - March 2018

#### QUEEN'S UNIVERSITY BELFAST

The car park project requires engineering student to act as a structural member of a design team consisting of architecture students engaged in the design of demountable car park above a covered but open sided column-free market place. I was collaborated in the development of several schemes, concentrating on structure and construction. The primary structural material was selected and analysed with ETABS

### TIMBER BRIDGE AND MDF TOWER

Jan 2017 - April 2017

#### QUEEN'S UNIVERSITY BELFAST

Constructing a timber bridge capable of taking the weight of a person walking across it. Also a laterally tapered tower made of MDF board, tested for efficiency across mass, strength, height and aesthetic appearance.

## EDUCATION

### M.ARCH DESIGN FOR MANUFACTURE

Sep 2018 - Dec 2019

#### UNIVERSITY COLLEGE LONDON

Masters of Architecture, in Design for Manufacture

### B.ENG CIVIL ENGINEERING

Sep 2015 - Jun 2018

#### QUEEN'S UNIVERSITY BELFAST

Bachelor of Engineering, with Second Class Honours, in Civil Engineering

## EXPERIENCE

### ENGINEERING INTERN

July 2018 - Aug 2018

#### THE DEPARTMENT OF HIGHWAYS IN THAILAND

They were a buildings engineering group that specializes in building highways. I was invited by this large department for transport to do this work.

### ENGINEERING INTERN

June 2017 - July 2017

#### NINEGATES ENGINEERING CO. LTD.

I worked with the team as a designer for a two story house. My task also included producing all 3D modelling and floor plans of the house.



## ABOUT ME



My time studying Civil Engineering has opened opportunities to me to gain engineering knowledge and networking with other students and people in the field of engineering. Coming from Thailand, I have been able to develop my fluency by forming good social connections with local students at Queen's University and University college London with other international students. This has allowed me to be more adaptable to situations and I can exchange the experience that I have from another University with my new friends and colleagues. I enjoy travelling and visiting new places so this is one of the factors which makes me desire to study and work in a new location. More life experience is another factor.

## SKILLS



GRASSHOPPER	●●●●●●●●○○○
KARAMBA, (FEA)	●●●●●●●●●●●
AUTOCAD	●●●●●●○○○○○
RHINO	●●●●○○○○○○○
SKETCHUP	●●●●●●●●○○○
LUMION	●●●●●●●●●●●
ETABS	●●●●○○○○○○○
GEOSTUDIO	●●●○○○○○○○○
ADOBE LIGHTROOM	●●●●●●●●●●●
INDESIGN	●●●●●●○○○○○
MICROSOFT OFFICE	●●●●●●●●●●●



## HONOURS



Qualified Physics Olympiad in Thailand (2012)  
Qualified Computer Olympiad in Thailand (2011)