

Jehan Chuduang

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Career Objective

To obtain a challenging and rewarding position as a Civil Engineer where I can utilize my technical skills, construction management knowledge, and passion for infrastructure development to contribute to the growth and success of a reputable organization.

Education:

Chulalongkorn University

2020 – 2023

Master of civil engineering, majoring in Construction management

GPA: 3.88 from 4.00

Current status: Graduated, waiting for the graduation ceremony

Graduation date: October 2024

Courses: Infrastructure planning and management, Computer applications

in construction, Risk management, Construction methods and equipment,

Analytical methods, Construction project management, Construction techniques and productivity.

Sripatum University

2016 – 2020

Bachelor of civil engineering

GPA: 3.79 from 4.00

Phararuthai Donmuang, High school

2013 – 2016

Math – Science program

Experience:

ALMEC Corporation JAPAN, JICA (Contract)

Jul 2021 – Present

Research Assistant

- Coordinate with the Department of Rail Transport Ministry of Transport in the "Project for enhancing capacity of formulation of the Second Mass Rapid Transit Master Plan in Bangkok Metropolitan Region (M-MAP2)"
- Assist researchers in various areas related to the analysis of rail demand forecasting models.
- Analyze the number of passengers using the electric train Due to the situation of COVID-19.

Infratrans Consultant Co., LTD (Full-time)

Jun 2020 – Dec 2020

Civil Engineer

- Being a traffic analyst (Traffic Engineer) for the MRT Orange Line Project PMCS2 Assist researchers in various areas related to the analysis of rail demand forecasting models.
- Being a consultant for the Western Route 9 Motorway Project (Western Outer Ring Road)
- The responsible part is estimating the cost of the project in terms of the initial cost. and operating costs.
- Analyze for a period of 30 years until the end of the concession period of the project.

Skill:

- Analytical Skills
- Statistical Data Analysis
- Research and Development (R&D)
- Presentation Skills
- Microsoft office (Word, Excel, PowerPoint, Project)
- Autodesk (Revit, Navisworks)
- Site layout management
- Python
- English score: CU-TEP 52, TOEIC 750

Research & Publications:

An Implementation of Reinforcement Learning for Construction Site Layout Planning

Sep 2022 – Dec 2023

Associated with Chulalongkorn University

- Developed a groundbreaking system for Construction Site Layout Planning (CSLP) through the integration of reinforcement learning principles. Created a pre-screening system utilizing knowledge expert systems to determine the size of temporary facilities, considering construction area dimensions and usage limitations. Applied Reinforcement Learning with Q-learning algorithms to optimize the positioning of temporary facilities, treating them as agents and identifying optimal positions based on specified constraints and conditions. Validated the system through three case studies, demonstrating its effectiveness in enhancing construction site layouts by improving the positioning of temporary facilities. Identified a limitation in applying reinforcement learning to projects with limited areas.
- This topic has been presented at the 34th KKHTCNN Symposium on Civil Engineering 2023, Pattaya, Thailand.

Skills: Reinforcement Learning · Construction Management · Civil Engineering · Project Management · Machine Learning

An Evaluation of the Effectiveness of the Travel Restriction Policy During the COVID-19 Pandemic to Control the Numbers of Daily Rail Passengers in the Bangkok Metropolitan Region

Nov 2023 – Dec 2023

Associated with ALMEC Corporation

- The Thai government has implemented travel restriction policies in the Bangkok Metropolitan Region to prevent the spread of COVID-19 on crowded trains and metros. These policies include time and spatial restrictions, closures of travel destinations, and promotion of remote working. The effectiveness of these policies in controlling the number of daily rail passengers has not yet been systematically evaluated, but a developed regression analysis model can be used to evaluate the effectiveness of each policy and benefit the policy evaluation of the Thai government.
- This topic has been presented at the 15th International Conference of the EASTS 2023, Malaysia and published in the Journal of the Eastern Asia Society for Transportation Studies.

Skills: Project Management · Microsoft Office · Analytical Skills · Statistical Data Analysis · Communication · Presentation Skills

Construction site layout planning using Monte Carlo simulation

Nov 2019 – Jun 2020

Associated with Sripatum University

- Study the layout of the construction area, temporary construction and data collection, the time frame for the construction of concrete towers using cranes within large-scale construction projects by using Monte Carlo simulation methods. Considering the crane and temporary road within the construction project and comparing the time to different 3 position of crane, it will develop software for considering the layout and temporary construction that is suitable.

Skills: Project Management · Microsoft Office · Analytical Skills · Statistical Data Analysis · Simulations · Monte Carlo Simulation

Licenses & certifications:

- Thai Professional Engineering License - Associate Engineer
Council of Engineer Thailand - COE
Issued Feb 2021

References:

- Available upon request