Md Kaiser Hamid Munna

Ph.D applicant Fall'24

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E D U C A T I O N

Bangladesh University of Engineering & Technology (BUET) **April 2019- Present**

Final year B.Sc. Student in Civil Engineering (CGPA : 3.52 out of 4.00 up to 6th semester)
Major : Transportation Engineering

P U B L I C A T I O N

Kaiser Hamid*[1]*, *Md Sayem Noor*[2]*, Annesha Enam,PhD*[3]*, Samiul Hasan,PhD*[4]
"Assessing the Potential of Google Location History (GLH) data for Travel Behavior Research in the Context of Developing Country ", Proceedings of 17th International Conference on Travel Behavior Research 2024, July 24-28
[SUBMITTED]

R E S E A R C H E X P E R I E N C E

I am a Research Assistant working with Professor Annesha Enam. Our research aims to assess the potential of "Google Location History" as a source of "Travel data" by matching it with ground truth data from users. To achieve this, I have utilized Python for data analysis and the development of a deep learning model. Additionally, I have created an Android app using Flutter for the purpose of collecting user data.

- **Duration:** January 2023 – Present
- **Research Focus:** Investigating the utility of 'Google Location History' as a potential source of "Travel Data".
- **Tools & Methodologies:** Python, Flutter, mongodB, Deep learning.

R E S E A R C H I N T E R E S T

Intelligent Transport System(ITS), Data Science, Computer Vision, Passive Data, Travel Behavior.

S K I L L S

- **Programming:** C, C++, Python
- **Design Tools:** AutoCAD, ETABS, SAP, VISSIM
- **Frameworks & Libraries:** Flutter, NodeJs, Pandas, NumPy, Matplotlib, Scikit-Learn, Keras, TensorFlow, yoloV5
- **Software Tools:** MS WORD, EXCEL, PowerPoint
- **Database management:** mongoDB
- **Web Development:** HTML

P R O J E C T

Drawing SFD, BMD of a simply supported beam using MATLAB(Github)

In this project, I utilized MATLAB to generate Shear Force Diagrams (SFD) and Bending Moment Diagrams (BMD) for a simply supported beam under various types of loads, including distributed loads and concentrated moments.

Estimation of Septic Tank using MATLAB GUI (Github)

This project involves the development of a calculator-like tool with a MATLAB Graphical User Interface (GUI). It takes input variables from a plan view of a septic tank and performs calculations, including excavation volume, RCC work, plaster and other related parameters.

Invoice making for a shop using C++ (Github)

This code is designed to update a real-time inventory and produce invoices for customers, including product identification. It is implemented in C++.

Reaction force solver of a simply supported beam using C++ (Github)

This project focuses on calculating the reaction forces of a simply supported beam subjected to distributed loads and concentrated loads. The calculations are implemented in C++.

Trip Tracker apps using flutter (Youtube)

This app tracks the start and end locations of users' trips, along with corresponding timestamps, and stores this information in MongoDB. It is implemented using Flutter.

Vehicle detection using deep learning for Dhaka, Bangladesh (Youtube)

In this project, I utilized YOLOv5 and custom data to detect vehicles on roadways in Dhaka, Bangladesh. The aim is to identify various modes of transportation.

Simulation of Gulshan-1 intersection using VISSIM (Youtube)

Using VISSIM, I conducted a simulation of the current traffic scenario at the Gulshan-1 intersection. The simulation provides insights into the queue lengths at each leg of the intersection.

T H E S I S

I am currently working on my undergraduate thesis under the guidance of Professor Moazzem Hossain. The focus of my thesis revolves around the prediction of queue lengths at a busy intersection. To achieve this, I am employing the YOLOv5 model and custom data for the detection of vehicles in Dhaka. The methodology involves capturing data at various time intervals to calculate the queue lengths. Subsequently, I will apply deep learning techniques to create a predictive model for estimating queue lengths.

A C H I E V E M E N T S

[2016] Vocational Board Scholarship by Govt. Bangladesh for outstanding performance in SSC
[2013] Vocational Board Scholarship by Govt. Bangladesh for outstanding performance in JSC

E X T R A C U R R I C U L U M

- Worked as an active member of “BADHON,BUET ZONE”.
- Actively worked as an organizer of “ BUET CE FEST 2023”