

CSE/CPEG Final Year Project/Thesis

Monthly-Report Submission Guideline

Objective: To track the progress of the Final Year Project/Thesis (FYP/FYT).

- There are 3 monthly reports which account for **5%** of the final grade.
- There are 3 monthly reports due in the Fall, i.e. Oct, Nov and Dec/Jan. The monthly reports in Oct and Nov are due by 11:59pm on the last day of each month. The monthly report in Dec/Jan is due by 11:59pm on 15 Jan.
- We recommend the meetings with project advisor(s) to take place in the middle of the month in Oct, Nov and Dec.
- It is the responsibility of the student to submit the completed report to the FYPMS.

Monthly Report for CSE FYP/FYT

Project Code:	PAN3	Supervisor(s):	Prof. Pan HUI
Project Title:	Spatiotemporal Fuel Consumption Forecasting		
Group Member(s) and Student ID(s):	YAP, Zhi Yun (20479594)		
Reporting Period: • Scan report and submit via the FYPMS	Report #1 Report #2 Report #3	<input checked="" type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec/Jan	
Progress: • List the work completed in this reporting period. • Identify the major difficulties encountered. • Comment on the overall progress.	<ol style="list-style-type: none"> 1. Mr. MingYang Zhang's meeting (25th Sept 2020) <ul style="list-style-type: none"> - Mr. MingYang gave feedback on proposed GNN architecture - Mr. MingYang recommended reading ST-GCN and TCN paper 2. Additional literature review <ul style="list-style-type: none"> - Spatio-temporal Graph Convolutional Networks (ST-GCN) paper - Temporal Convolutional Network (TCN) paper 3. Data acquisition and understanding <ul style="list-style-type: none"> - Obtained private car dataset consisting 18M entries from Mr. Ahmad - Studied relevant research paper to understand about the dataset 4. Exploratory data analysis and preliminary data preprocessing <ul style="list-style-type: none"> - Presented data analysis outcome to Mr. Ahmad (10th Oct 2020) - Cleaned data to remove erroneous entries and outlier - Studied and added extra spatial features (point-of-interests) from OpenStreetMap OverPass API to the private car dataset 		
Future Plan: • Write down the working plan	Following milestones are to be achieved before end of November <ol style="list-style-type: none"> 1. Complete and document code for data preprocessing work 2. Research on graph representation methodologies used in services like Google Maps and OpenStreetMap 3. Construct graph for road network (this FYT proposed a different methodology to segment and represent urban road network in graph) 4. Decide baseline model and evaluation metrics and start development work for the baseline model 		
Supervisor's Comments:	The student has preprocessed and analyzed a dataset of private car dataset consisting 18M data points. She did exploratory data analysis (EDA) that is insightful. She extracted point of interest and visualized them. Her final output was presented as PowerPoint slides to show the EDA, maps, and visualization. She also set a clear plan for November 2020.		
Supervisor's Overall Evaluation:	<div style="display: flex; justify-content: space-between; align-items: center;"> (please circle) <div style="display: flex; align-items: center; gap: 5px;"> <div style="border: 1px solid black; padding: 2px 5px;">F</div> <div style="border: 1px solid black; padding: 2px 5px;">D</div> <div style="border: 1px solid black; padding: 2px 5px;">C-</div> <div style="border: 1px solid black; padding: 2px 5px;">C</div> <div style="border: 1px solid black; padding: 2px 5px;">C+</div> <div style="border: 1px solid black; padding: 2px 5px;">B-</div> <div style="border: 1px solid black; padding: 2px 5px;">B</div> <div style="border: 1px solid black; padding: 2px 5px;">B+</div> <div style="border: 1px solid black; padding: 2px 5px;">A-</div> <div style="border: 1px solid black; padding: 2px 5px; border-radius: 50%;">A</div> <div style="border: 1px solid black; padding: 2px 5px;">A+</div> </div> (letter grade) </div>		
Meeting Date & Time:	16 Oct 2020 6pm		
Group Representative's Signature:		Supervisor's Signature:	