

PARKING CAPACITY ANALYSIS
(Case Study: Parking Area Tugu Yogyakarta Railway Station)

Final Project

By:

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APPROVAL

Final Project

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has been approved by Supervisor

Yogyakarta, July 25, 2016

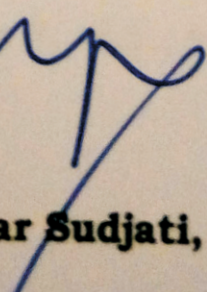
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APPROVAL

Final Project Report

PARKING CAPACITY ANALYSIS

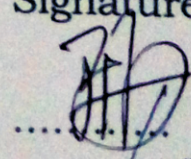

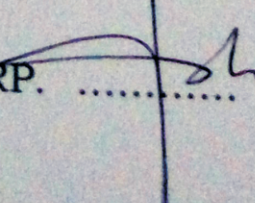
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STATEMENT LETTER

This final project entitled:

PARKING CAPACITY ANALYSIS, CASE STUDY:

PARKING AREA TUGU YOGYAKARTA RAILWAY STATION.

This project was written by me and in my own words, except for quotations from published and unpublished sources which are clearly indicated and acknowledged as such. I am conscious that the incorporation of material from other works or a paraphrase of such material without acknowledgement will be treated as plagiarism, subject to the custom and usage of the subject, according to the Universitas Atma Jaya Yogyakarta final report and examination. The source of any picture, map or other illustration is also indicated, as is the source, published or unpublished, of any material not resulting from my own experimentation, observation or specimen-collecting.

Yogyakarta, July 25, 2016



Okkie Putriani

FOREWORD

"You cannot escape the responsibility of tomorrow by evading it today." *Abraham Lincoln*

Rejoice in God, we may do that evermore. Give thanks for sparing and preventing, for common and uncommon, past and present, temporal and spiritual mercies. Not only for prosperous and pleasing, but also for afflicting providences, for chastisements and corrections, for God designs all for our good. Enlightening, enlivening, and purifying the souls of these responsibility.

This final report was a part of the fulfillment as Under Graduate requirements. The research was focused on the Parking Capacity Analysis, Case Study: Parking Area Tugu Yogyakarta Railway Station.

Thank you I really appreciate your help:

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6. Beloved father, thank you for all the great memories, Pi, just one more chance, I wish I could get a hug from you dad.
7. Our lovely mother, thank you for the pray, support and your motivation, Mi.
8. The best aunty, Miok, I am so grateful for having you. I really appreciate all the hard work you've done for me and your unconditional love.
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11. Vivi, our little sister, thank you for unconditional support and your lovely patient.

All families, friends and relatives who always available in any situations. Wholeheartedly appreciate everything you have done for this completion.

To anyone who want to learn about traffic engineering especially on parking capacity, these research may help and inform you. The report is made to be complete information with easy to be understood. It will warm the hearts of any input or suggestion.

“As we express our gratitude, we must never forget that the highest appreciation is not to utter words, but to live by them.” – John F. Kennedy.

Okkie Putriani

PREFACE

Innovation economy, governance, and urban infrastructure are some major fields of intelligent city activation. Those have been suggested that a smart city uses information and technology to:

1. Learn, adapt, and innovate respond more effectively to changing circumstances by improving the intelligence of the city.
2. Engage effectively with local people in local governance, their decision and participation.
3. And make more efficient use of physical infrastructure through artificial intelligence and data analytics to support a strong and healthy economic, social, cultural development.

Parking railway station is one of many supported infrastructures that can be submitted in smart cities indicators. Amsterdam and Canberra for examples of smart cities in the world that nowadays supports internet technology in connected parking.

Tugu Yogyakarta Railway Station as a strategic public place in *Yogyakarta*, is one of beginning places for *Yogyakarta* city as a destination for studying, tourism, and others in Indonesia. If the parking system in *Tugu Yogyakarta* Railway Station run smoothly and professionally, it will bring a promising good progress for the next smart cities in the world.

In these research will be analyzing the parking condition about the parking capacity and the surrounded situations.

Hopefully with these basic research of traffic engineering about parking, it can support the platform vision of building a smart city.

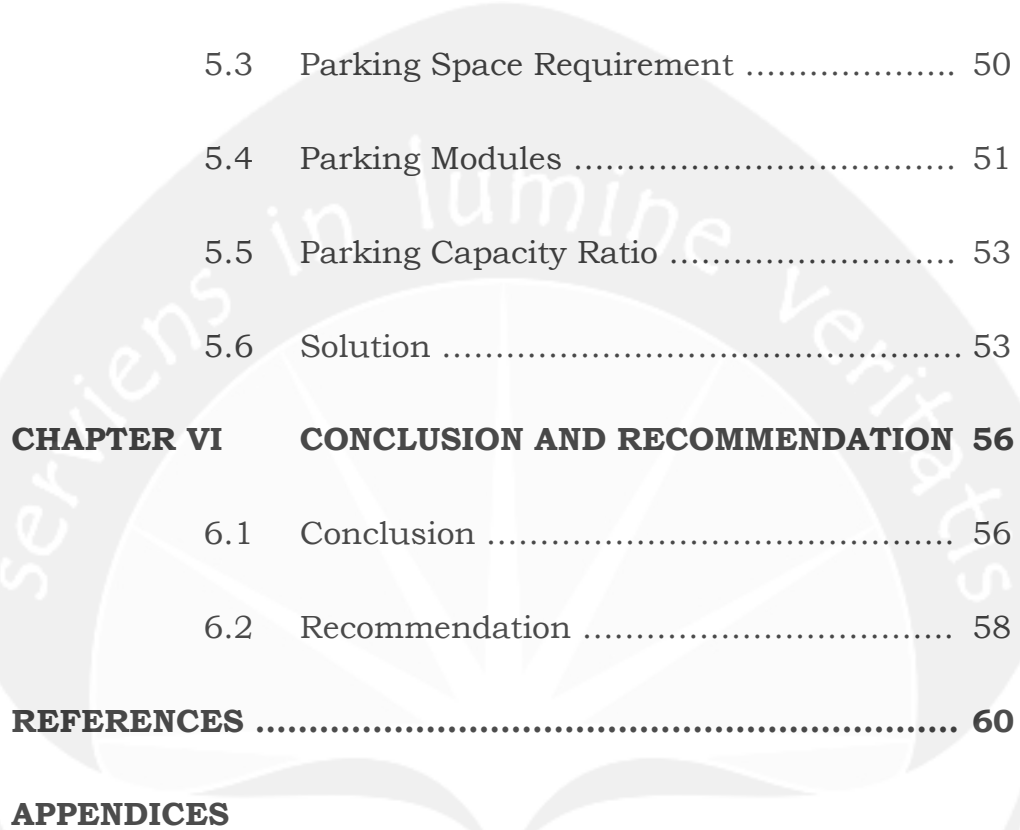


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ABSTRACT

PARKING CAPACITY ANALYSIS (STUDY CASE: PARKING AREA TUGU YOGYAKARTA RAILWAY STATION), Okkie Putriani, 031311461, year 2016, Department of Civil Engineering, Faculty of Engineering, Faculty of Engineering, Universitas Atma Jaya Yogyakarta.

PT KAI Daops 6 Yogyakarta (2015) imposed a new parking area from east side of Tugu Railway Station to west side of the station or the area Bong Suwung with area covered 6,714m² accommodated 170 cars and 450 motorcycles. Nevertheless in reality the parking lot and road were often jammed.

The proposed of these research was to evaluate the capacity analysis oth the available parking in Tugu Yogyakarta Railway Station. Using three samples in different days: weekend (Saturday, April 23, 2016), holiday (Thursday, May 5, 2016), and regular day (Tuesday, May 24,2016). Using in-out survey the occupancy count in the selected parking lot is taken, the data would be calculated and reviewed.

The maximum accumulation was happen on holidays, and the capacity car parking was unavailable enough. The parking system had to be maintained not only in entrance-exit gates but also in the pick-up/arrival vanue. In these final report were given alternative solution.

Keywords: railway station, parking, Tugu Yogyakarta, parking capacity, turnover, accumulation