



Cityscape Greenery: Management of Urban Forest

UNDERGRADUATE THESIS

Submitted as one of the requirements to obtain Sarjana Komputer

(S.Kom)

By:

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FACULTY OF COMPUTING SYSTEM

INFORMATION STUDY PROGRAM

CIKARANG MAY 2024

CITYSCAPE GREENERY: MANAGEMENT OF URBAN FOREST

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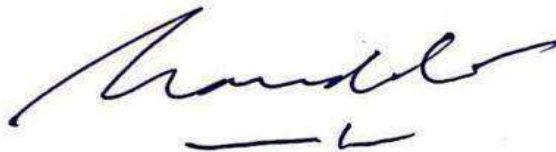
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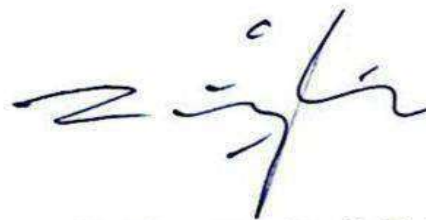
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Cityscape
Greenery:
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Urban
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UNDERGRADUATE
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ABSTRACT

A key component of sustainable urban environmental management is urban vegetation. The goal of this project is to create a system-based application that can use smoke detectors to identify forest fires, measure rainfall, and monitor the condition of urban forests. To find the location of the user and the nearest tool, the program also utilizes GPS technology. Literature review, requirement analysis, system design, implementation, and assessment are some of the research techniques used. The results showed the application's ability to provide up-to-date data on urban forest conditions, rainfall, and early identification of forest fires. To preserve the environment, it is hoped that this application can be a useful resource for urban forest rangers, environmental stakeholders, and the general public.

DEDICATION

To those who have provided inspiration on this journey:

1. To my dear family, who have been my source of unending support and inspiration along this journey.
2. To my research partners, professors, and mentors who have influenced me with their observant observations, critical thinking, and unshakable determination.
3. To the citizens of the city, who have been a major source of inspiration in developing significant and durable solutions for our beloved urban environment.
4. I am grateful to the amazing group of friends, who have been our pillars of support and encouragement throughout this journey. Our tears and laughter have forged unforgettable friendships from brainstorming to late nights. Our ability to work together gives us strength in every situation. This commitment is for every stage of our shared adventure. Words cannot express how valuable every contribution, thought and effort you have given has been. We are true friends who encourage each other along the way, not just teammates.

With deep respect, this dedication is dedicated to all who believe that we have the ability to create positive change, even in the most micro level of our city life.

ACKNOWLEDGMENTS

To everyone who helped me to successfully finish this report, I would like to extend my deepest appreciation. Above all, I owe a debt of gratitude to my supervisor, Tjong Wan Sen, S.T., M.T., for his wise counsel, encouragement, and perceptive criticism during the Capstone project. His knowledge and support were crucial in determining the focus and caliber of this activity.

I would especially like to thank our project partners Destiny, Ummi, and Azalea for their cooperation, support, and unwavering inspiration. Their helpful advice and collaborative efforts were very important to the project's advancement. I am also appreciative of my family and all my friends for their unwavering encouragement and support when I'm down. Their confidence in my skills and their steadfast support were essential in helping me get over the obstacles my study presented.

In closing, I would like to thank all of the writers and academics whose work served as the background and framework for my research. Their commitment to expanding our understanding of this area has been a wonderful source of motivation. I am very grateful for all of your kind contributions.

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