

بسم الله الرحمن الرحيم

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AN APPROACH FOR STUDYING THE MAIN CAUSES OF SPREADING PARATRANSIT STOPS

TO DEVELOP A METHODOLOGY FOR DISTRIBUTING STOPS IN NEW URBAN AREAS BY USING GIS

By

Mariam Osama Mohammed Shaker

A Thesis Submitted to the
Faculty of Engineering at Cairo University
in Partial Fulfillment of the
Requirements for the Degree of
DOCTOR OF PHILOSOPHY
in
Architectural Engineering

FACULTY OF ENGINEERING, CAIRO UNIVERSITY GIZA, EGYPT 2022

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Under the Supervision of

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Approved by the
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FACULTY OF ENGINEERING, CAIRO UNIVERSITY GIZA, EGYPT 2022

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Title of Thesis:

An Approach For Studying The Main Causes Of Spreading Paratransit Stops (to develop a methodology for distributing stops in new urban areas by using GIS)

Key Words:

Paratransit; quality of life; road network; built environment; GIS

Summary:

Paratransit stop is one of vital problems. Studying this problem help to build a knowledge base for further research to put a solving criteria for this vital problem. Researcher propose six main parameters (quality of life – mobility and quality of public transit – transit station – built environment – road network – transit user) responsible for the informal formation of paratransit stops. A methodology consists of six stages to investigate the importance of the proposed parameters. The results confirmed the importance of road network parameter on the paratransit stop formation.



Disclaimer

I hereby declare that this thesis is my own original work and that no part of it has been submitted for a degree qualification at any other university or institute.

I further declare that I have appropriately acknowledged all sources used and have cited them in the references section.

Name: Mariam Osama Mohamed Shaker Date: .../.../ 2022

Signature:

Dedication

All gratitude to Allah who give me the power and the opportunity to do this research.

I dedicate this thesis to.....

To my father (may Allah rest his soul in peace),

To my mother who encourages me to be a good person and give my all (all what I want is to make her proud of me).

To my brother Mohamed, his wife Enas, and to their kids (Osama and Dalida).

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She was my main supporter throughout the thesis stages. I learned a lot from her, as without her encouragement and support, this thesis would not be done.

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My mother **Soher Ali Yousef**, all my work, all my life, and all my success won't be anything without her support and encouragement.

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Gratefully yours, Mariam Osama Shaker