IMPLEMENTATION OF CIRCULATION STRATEGIES IN THE DESIGN OF A TRAIN STATION IN ILORIN

OYEDEMI, FRANCIS INIOLUWA
(22PCAO2367)
B.Tech., Architecture, Ladoke Akintola University of Technology, Ogbomoso

JULY, 2024

IMPLEMENTATION OF CIRCULATION STRATEGIES IN THE DESIGN OF A TRAIN STATION IN ILORIN

BY

OYEDEMI, FRANCIS INIOLUWA
(22PCA02367)
B.Tech., Architecture, Ladoke Akintola University of Technology, Ogbomoso

A DISSERTATION SUBMITTED TO THE SCHOOL OF POSTGRADUATE STUDIES IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF MASTER OF SCIENCE (M.Sc) DEGREE IN ARCHITECTURE IN THE DEPARTMENT OF ARCHITECTURE, COLLEGE OF SCIENCE AND TECHNOLOGY, COVENANT UNIVERSITY, OTA, NIGERIA

JUNE 2024

ACCEPTANCE

This is to attest that this dissertation is accepted in partial fulfilment of the requirements for the award of the degree of Master of Science (M.Sc) in the Department of Architecture, College of Science and Technology, Covenant University, Ota, Nigeria and has been accepted by the School of Postgraduate Studies, Covenant University, Ota.

Miss Adefunke F. Oyinloye
(Secretary, School of Postgraduate Studies) **Signature and Date**

Prof. Akan B. Williams
(Dean, School of Postgraduate Studies) **Signature and Date**

DECLARATION

I, OYEDEMI, FRANCIS INIOLUWA (22PCA02367) declare that this dissertation is a representation of my work and is written and implemented by me under the supervision of Dr. O. D. Babalola of the Department of Architecture, Covenant University Ota, Nigeria. I attest that this dissertation has not been submitted either wholly or partially to any other university or institution of higher learning for the award of a master's degree. All information cited from published and unpublished literature are duly referenced.

OYEDEMI, FRANCIS INIOLUWA

Signature and Date

CERTIFICATION

This is to certify that this dissertation titled "**IMPLEMENTATION OF CIRCULATION STRATEGIES IN THE DESIGN OF A TRAIN STATION IN ILORIN, NIGERIA**" Is an original research work carried out by **OYEDEMI, FRANCIS INIOLUWA** in the Department of Architecture, College of Science and Technology, Covenant University, Ota, Ogun State, Nigeria, under the supervision of Dr. O.D Babalola.

Dr. Olatunde D. Babalola
(Supervisor) **Signature and Date**

Prof. Adedapo A. Oluwatayo
(Head of Department) **Signature and Date**

Dr. Oluwafemi K. Akande
(External Examiner) **Signature and Date**

Prof. Akan B. Williams
(Dean, School of Postgraduate Studies) **Signature and Date**

DEDICATION

I dedicate this research work to God Almighty, the Alpha and Omega, the One who started this journey with me and who is also seeing it to a perfect completion, for His strength, courage, and provisions which He made available unto me throughout the course of carrying out this research work, and to my lovely family for their support at every single point in time. The good Lord blesses you all. Amen.

ACKNOWLEDGEMENTS

Above all, I want to thank God Almighty, for His grace, guidance and divine protection throughout the course of this project.

My appreciation is directed to Covenant University for providing me with the wonderful chance to conduct this research. Additionally, I would like to recognize the Chancellor of Covenant University, in the person of Bishop David O. Oyedepo, as well as the Vice-Chancellor of Covenant University, Prof. Adebayo H. Adebayo, for their contributions to humanity.

My heartfelt thanks and appreciation go to my loving parents Mr. and Mrs. Oyedemi for their intentional love, and support in different ways; morally, financially, in prayers and otherwise and my siblings for their prayers and support. I'm taking this time out to let you all know that I love and cherish you. A very special thanks to Dr. Busayo Awolola for her support and encouragement in diverse means at every single point in time, and I want you to know that I love you. I also express my profound appreciation to my project supervisor, Dr. O. D. Babalola and the head of the department, Prof. Adedapo A. Oluwatayo, for their tireless effort to ensure the success of this research.

Lastly, I would like to express my appreciation to those who have contributed to the success of this research work in one way or another, especially to my course colleagues for taking me as a friend and brother, and for their support always. God bless you all real good.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF PLATES

LIST OF FIGURES

LIST OF MAPS

LIST OF CHARTS

ABSTRACT

Nigeria, a populous and diversified nation, uses different modes of transportation to ease movement inside and between its cities. With the most popular of these modes being road, rail, air, and water, in which transport by road is the most patronized mode of transportation within the nation. It's no news that most Nigerian roads are in very poor conditions leading to traffic congestion and delays, and in most cases are unsafe. It is therefore essential that the nation whilst not totally neglecting improving transportation by road, should begin to think forward in this forward moving age and era, in focusing on another means of transportation which is actually safe and will not give any woes of delay to commuters, which in this context is transport by rail, in order to meet the fast and growing need of the nations' population for efficient transportation. In an increasingly urbanized world, the effective management of passenger flow and movement within train stations stands as a vital factor in shaping the overall travel experience. With a focus on the Nigerian environment, this thesis aims to investigate and resolve the complex dynamics of passenger mobility within train stations. The main goal of the study is to suggest design solutions that improve circulation paths and, in turn, improve user experience.

Keywords: Circulation, Railway Infrastructure, Train Stations, Transportation, Passenger flow