

**PERFORMANCE BASED DESIGN OF MULTI-FACULTY BUILDING IN RIVERS
STATE UNIVERSITY PORT HARCOURT**

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**PERFORMANCE BASED DESIGN OF MULTI-FACULTY BUILDING IN RIVERS
STATE UNIVERSITY PORT HARCOURT**

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**A DISSERTATION SUBMITTED TO THE SCHOOL OF POST GRADUATE STUDIES,
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DEPARTMENT OF ARCHITECTURE, COLLEGE OF SCIENCE AND
TECHNOLOGY, COVENANT UNIVERSITY OTA, OGUN STATE, NIGERIA**

SEPTEMBER, 2021.

DECLARATION

I, **OWUAMA, CHIDINDU CHUKWUEMEKA (17PCA01607)**, of the Department of Architecture, College of Science and Technology, Covenant University, Ota, Ogun state, hereby declare that the information contained in this dissertation work is the result of an honest academic research undertaken by me. I attest that the dissertation has not been presented wholly or partially for the award of any degree elsewhere. All sources of data and scholarly dissertation information used in this dissertation are duly acknowledged.

OWUAMA CHIDINDU CHUKWUEMEKA

Signature & Date

CERTIFICATION

We certify that this dissertation titled “**PERFORMANCE-BASED DESIGN OF MULTI-FACULTY BUILDING IN RIVERS STATE UNIVERSITY, PORT HARCOURT**” is an original research work carried out by **OWUAMA CHIDINDU CHUKWUEMEKA (17PCA01607)**, in the Department of Architecture, College of Science and Technology, Covenant University, Ota, Ogun state, Nigeria, under the supervision of Dr. O. D. Babalola. We have examined and found this work acceptable as part of the requirements for the award of Master of Science (M.Sc.) in Architecture.

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DEDICATION

This project dissertation is dedicated to God Almighty for life and health, my parents Prof. and Dr. (Mrs.) Chikezie Owuama for their prayers, love and understanding and constant support and encouragement in my times of weakness.

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LIST OF ABBREVIATIONS OR ACRONYMS

These are some abbreviated terms that will be used in this research dissertation:

IMSU: Imo State University

RSU: Rivers State University

SE: South-East

SS: South-South

UNIPORT: University of Port Harcourt

ABSTRACT

Faculty buildings have transcended from the singular function of hosting staff and students to a complex one of making sure that it adequately performs its function and at the same time satisfying the users of the building. Building performance is a general term used to describe just how well a building can satisfy the users. A multi-faculty building is a complex comprising of two or more faculties. In this study, it is going to merge the faculty of Humanities and the Faculty of Social Sciences into one complex structure for the Rivers State University. The Aim of this study is the design of a multi-complex faculty building for the faculty of Humanities and the faculty of Social Sciences in RSU, Focusing on buildings performance with safety and security very important variables. In order to carry out this study, the research employed quantitative and qualitative method which include questionnaire distribution to Two (2) of the three randomly selected public universities in South-East and South-South Region in Nigeria and two from international context. 160 questionnaires were distributed in the study area out of which 141 were retrieved. Bivariate and multivariate analysis were carried out by means of SPSS with computer system. The result showed that in the study context performance of faculty buildings as measured using overall quality of the buildings and their environment was 4 on a scale of 5 indicating 'Good'; which was influenced by material quality, water, number of floors, ventilation, landscaping, number of staircases, human circulation, space adequacy, accessibility and security, out of these the following four (4) had the highest rating; material quality, number of staircases, water and human circulation. These factors need to be improved upon if performance of the building facilities is to be enhanced from present to highest level of 5 on a scale of 5 which is 'very good'. Findings showed that performance-based design is a very important factor to consider when designing faculty or multi-faculty buildings for universities. This study further led to the proposed architectural design of the multi-faculty building facility that utilizes performance-based design strategies.

Keywords: Building condition, Building quality, Faculty building, Performance-Based criteria, Public University, and User Satisfaction.