

## **CHAPTER ONE**

### **INTRODUCTION**

#### **1.1 BACKGROUND OF THE STUDY**

Digital mapping refers to the process of creating and using digital maps to represent and analysis geographic data, it involves the use of geographic information system (GIS) software to create, edit, and, analyse digital maps.

In the context of surveying and Geo-informatics digital mapping enhance efficiency of spatial data collection, analysis and visualisation making it essential for a range of applications including urban and environmental monitoring and disaster management.

Digital mapping has revolutionised the field of surveying, enabling the creation of accurate and detailed maps that can be used for a variety of purposes including land use planning, infrastructure development and environment monitoring. This project aims to explore the application of digital mapping in surveying with a focus on land use planning in Nigeria. Digital mapping allows for more accurate data collection and analysis, reducing errors and improving the reliability of survey results.

Digital mapping automates many tasks such as data collection and analysis, allowing surveyors to focus on higher level tasks and improving overall efficiency.

Digital mapping reduces the need for physical equipment and materials, making it a cost effective option for surveying projects.

A Map is a visual representation of an area typically showing the relationships between element of that space such as roads, rivers, and building. Maps can be physical, digital or a combination of both and they are serving various purposes including navigation, planning and organization.

Mapping Involves carrying out observation for the natural and artificial features on the earth surface and represent them in form that is understandable to the end user either as a chart, map or Plan. Digital mapping began in the 1960s with the development of computer aided design (CAD) software The Introduction of geographic Information system and global positioning system technologies further accelerated the adoption of digital mapping in Surveying.

## **1.2 STATEMENT OF PROBLEM**

The lack of a digital map for Adewole Federal Staff school hinders efficient navigation, facility management. The school current mapping system is outdated and the data is not accurate.

## **1.3 AIM OF THE PROJECT**

The aim of the project is to carry out a digital mapping of Federal Staff School Adewole, Kano Road Ilorin, Kwara State

## **1.4 OBJECTIVE OF THE PROJECT**

- i. To show the position of artificial feature.
- ii. To Develop a digital mapping system that prides accurate and up-to-date mapping Information
- iii. To collect and analyzed data on the current see of mapping in Federal Staff School Adewole, including data on accuracy, access, efficiency.
- iv. To determine the perimeter and area of the project.

## **1.5 SCOPE OF THE PROJECT**

The scope of this project includes the development of a digital mapping system that addresses the limitation of the current mapping system.

- **Data collection:** Collect data on the current state of mapping in Federal Staff School Adewole, including data on accuracy, access, efficiency.
- **Testing and Evaluation:** Test and evaluate the digital mapping System to ensure that it meets the need of the supervisor approval.
- **System Development:** Develop a digital mapping system that Includes data collection, analysis and dissemination tools.
- Information presentation

## **1.6 SPECIFICATION OF THE PROJECT**

The project aims to develop a digital mapping system that provides accurate and up-to-date mapping information to Federal Staff School Adewole.

- The distance between the pillar should not be more than 250m

- A closed traverse will be carried out for field work
- The Scale should not be more than 1: 2500

## 1.7 PROJECT LOCATION

The project area is Federal Staff School, Kano Road, Adewole Estate Ilorin, Kwara State which covered the Primary and Secondary School on the geographical coordinate of Easting and Northing

LAT 4°513 E

LONG 8.4727°N

LAT 4° 30'47"

LONG 8 28' 40"N

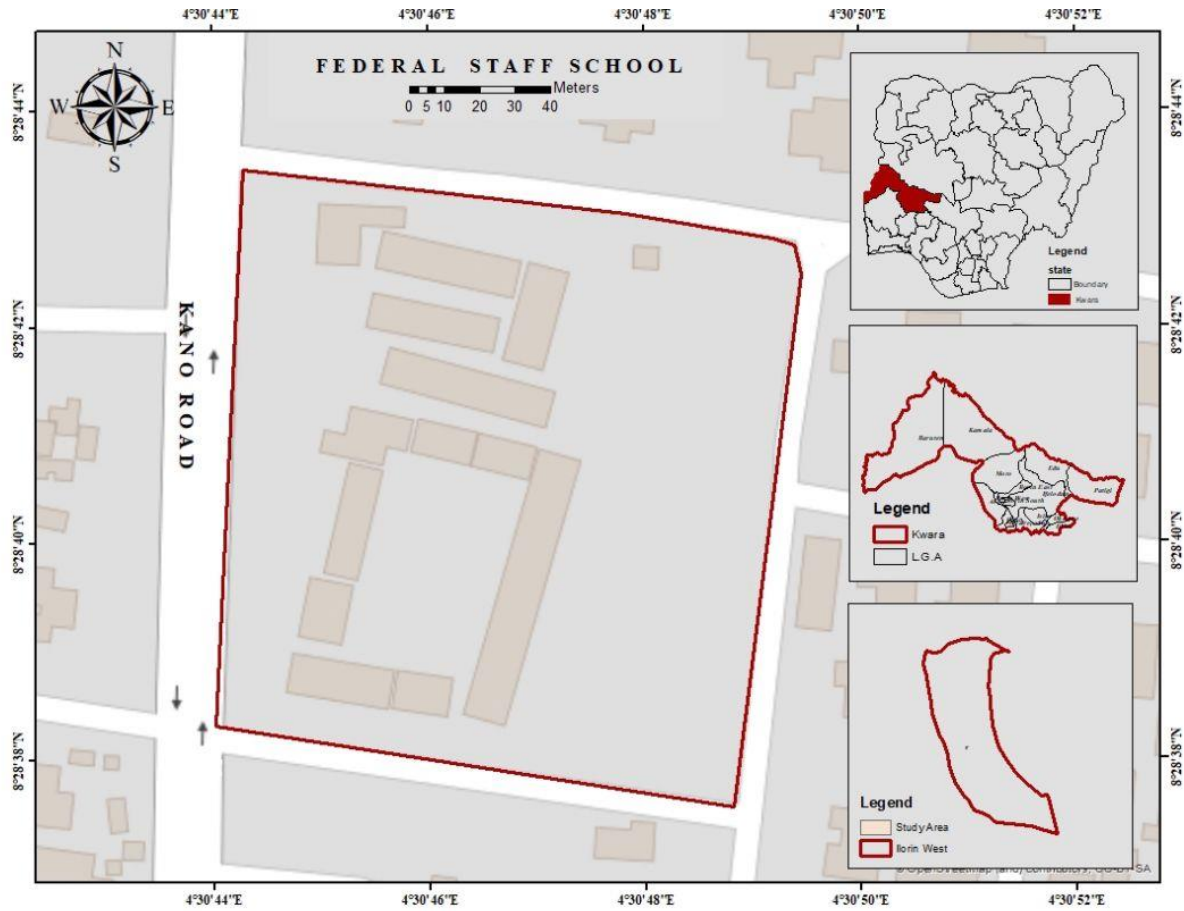
## 1.8 PARTICIPANT OF THE PROJECT

This includes the list of the student Involved in the project

| S/N | NAME                        | MATRIC NO.         | ROLE PLAYED |
|-----|-----------------------------|--------------------|-------------|
| 1.  | IBITOYE JOSHUA AYOKUNLE     | HND/23/SGI/FT/0047 | AUTHOR      |
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| 6.  | OLADIMEJI RAPHEAL OLUWASEUN | HND/23/SGI/FT/0045 | MEMBER      |
| 7.  | AKINYEJO EZEKIEL DAMILOLA   | HND/23/SGI/FT/0051 | MEMBER      |

## 1.9 STUDY AREA

The study focus on Federal Staff School, Adewole located in Ilorin, Kwara State, Nigeria. The school is situated in the Adewole area, a well-known residential and educational neighborhood within Ilorin West Local Government Area. The geographic location of the study area lies between Latitude 8.477702N and Longitude 4.5104184E



**Fig 1: Map of the Study Area**