A TECHNICAL REPORT ON STUDENT INDUSTRIAL TRAINING WORK EXPERIENCE SCHEME [SIWES]

UNDERTAKEN AT:

AJIBEZ NIG. LIMITED

NO 8, KULENDE - AKEREBIATA ROAD, OFF ILORIN JEBBA OLD ROAD, P.O.BOX 5374, ILORIN, KWARA STATE

PRESENTED

BY

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ND/23/SGI/FT/0026

SUBMITTED TO THE DEPARTMENT OF SURVEYING AND GEO- INFORMATICS

FACULTY OF ENVIRONMENTAL STUDIES, KWARA STATE POLYTECHNIC, ILORIN KWARA STATE.

IN PARTIAL FULFILMENT OF THE REQUIREMENT FOR THE AWARD OF ORDINARY

NATIONAL DIPLOMA (OND) IN SURVEYING AND GEO- INFORMATICS.

MARCH, 2025

CERTIFICATION

I, **RAHEEM ROKIBAT ANIKE** with Matric number **ND/23/SGI/FT/0026** hereby certify that the information contained in this SIWES report were obtained as a result of my experiences during my 4 month SIWES programme at **AJIBEZ NIG. LIMITED** in accordance with survey rule and regulations and departmental instructions. I therefore submit the report as a partial fulfillment of the requirements for the student work experience scheme requirements for **KWARA STATE POLYTECHNIC ILORIN, KWARA STATE,** student work experience scheme.

_____ _____

DATE

(SIWES SUPERVISOR)

_____ _____

DATE

(SIWES COORDINATOR)

_____ _____

DATE

(HEAD OF DEPARTMENT)

_____

_____

DATE

DIRECTOR, DIRECTORATE OF

INDUSTRIAL LIAISONS PLACEMENT

DEDICATION

This Siwes report is dedicated to my lovely supporter/guidance

MR & MRS RAHEEM

ACKNOWLEDGEMENT

Praises and thanks to the Almighty GOD for his showers of blessing throughout my Industrial Training period and for a successful completion. I would like to express my deepest and sincere gratitude to my training supervisor and management of **AJIBEZ NIG. LIMITED** and other sectional heads in person of . He has given me the opportunity to carry out this Industrial training; providing invaluable guidance throughout the training period. His supervision, vision, sincerity and motivation was deeply inspired me. I am extremely grateful for what he has offered me. I would also like to thank him for his friendship, empathy and great sense of humor.

Nevertheless, my profound acknowledgement will extend to my Head of Department of Surveying and Geo- informatics, The kwara state polytechnic and all other departmental lecturers for the advice, support and correction made to me while in the classroom, during practical and every time I need their assistance. I pray you all continuous to leave in good health and more promotion on your field sir and ma.

TABLE OF CONTENTS

CHAPTER ONE

1.0 INTRODUCTION

This report presents my experiences and achievements during my four-month industrial attachment at **AJIBEZ NIG. LIMITED.** The report provides an overview of the organization, its objectives, and the activities I was involved in during my attachment.

It also highlights the skills and knowledge I acquired during the period, including practical experience with surveying equipment, geospatial software, and project management techniques.

1.1 INCEPTION OF STUDENT INDUSTRIAL WORK EXPERIENCE SCHEME

The Students Industrial Work Experience Scheme (SIWES) is a program that was established in Nigeria to bridge the gap between theoretical knowledge acquired in the classroom and practical skills required in the workplace. SIWES was initiated in Nigeria in 1973 by the federal government as a response to the need for practical exposure of students in higher institutions to real work environments. Its relevance in the education system cannot be over emphasized as it develops the student to become skilled and experience professionalism in the various disciplines. It enables students to appreciate the basic concept involved in their field of study. SIWES, which involves the university authorities and the industrial sector, runs for 24 weeks for students in the fourth academic year in the universities. The scheme was organized by the federal Government and jointly coordinated by the Industrial Training Fund (ITF) and the Nigerian Universities Commission (NUC). The importance of the training scheme is justified as it is a research field, which enables students to be totally in- depth in finding the working culture, practice and tools in their various areas of specialization.

1.2 OBJECTIVES

The Students' Industrial Work Experience Scheme (SIWES) was created with the goal of fostering and supporting the development of skills in business and industry in order to create a pool of qualified native workers sufficient to meet the demands of the economy. Any industrial organization's most valuable resource depends on the technical proficiency of its workforce to operate and maintain its non- human assets and resources, which is why SIWES is required. According to the program's operational norms and guidelines, students are assigned to a structured environment (private or public), whose operations are related to their course of study. The purpose of this training time is to help students at different levels connect the theory they learn in class to real- world applications. According to the government's education policy,

CHAPTER TWO

2.0 DESCRIPTION OF THE ESTABLISHEMENT OF ATTACHMENT

The name of the company is **AJIBEZ Nig LTD** and it's the was found 2007 the company deal selling of property(land and house) and surveying and The name of the GM(General manager) is surveyor Ajiboye,And company consist of field department and cartography department

Facilities and Equipment

AJIBEZ NIG. LIMITED has a well-equipped office with state-of-the-art surveying and geospatial equipment, including:

- Total stations
- GPS receivers
- GIS software (ArcGIS, QGIS)
- Surveying software (Autodesk, Carlson)
- Computers and laptops

Services Offered

The company offers a range of services, including:

- Topographic surveys
- Boundary surveys
- GIS mapping
- Geospatial consulting
- Project management

2.1 LOCATION AND BRIEF HISTORY OF ESTABLISHMENT

ARCHY KINGZ CONSULT is located at:

NO 8, KULENDE - AKEREBIATA ROAD, OFF ILORIN JEBBA OLD ROAD, P.O.BOX 5374, ILORIN, KWARA STATE

Brief History of Establishment

AJIBEZ NIG. LIMITED was established in 2018 by **Surveyor AYOWALE OLAWALE** (**MNIS**) a seasoned surveyor with nine years of experience in the industry.

The company started as a small surveying firm providing services to local clients but has since grown to become a leading provider of surveying and geospatial services in [Region/State]. Over the years, the company has built a reputation for delivering high-quality services and has worked on numerous high-profile projects in Industry

AJIBEZ NIG. LIMITED is a private Survey firm. The company was established and legal registered under C.A.C corporate commission in the year 2019, the firm name has been in existences since seven year back. And the firm has fully involved in both government and privates survey job both in the state and outside the Lagos State.

The mandate of the ministry is primarily to formulate and implement the policies, programmes and projects of the Federal Government of Nigeria (FGN) with respect to road transport, highway construction and rehabilitation; highways planning and design monitoring and maintenance of federal roads and bridges nationwide.

2.3 OBJECTIVES OF ESTABLISHMENT

The primary objective of establishing **AJIBEZ NIG. LIMITED** is to provide innovative and cutting-edge surveying and geospatial services to clients in various industries, including:

Infrastructure Development : To support the development of infrastructure projects, such as roads, bridges, and buildings, by providing accurate and reliable surveying and mapping services.

Land Administration: To assist in the management and administration of land resources by providing services such as land surveying, mapping, and GIS analysis.

3. **Environmental Monitoring**: To support environmental monitoring and management efforts by providing services such as GPS tracking, GIS analysis, and remote sensing.

4. **Professional Development** To provide training and development opportunities for surveying and geospatial professionals, promoting capacity building and skills development in the industry.

aims to become a leading provider of surveying and geospatial services in the region, known for its excellence, innovation, and commitment to delivering high-quality services.

Topographic Surveying

Geographic Information System Analysis

Digital Mapping and Street Guide Mapping

Drone Mapping and Analysis

Hydrographic Surveying

2.5 Departments and Units in the Firm

The following departments/section were operated and function well, they are:-

ii. Managing Director

iii. GIS Section

iv. Admin. Section

v. Finance and Accounting Section

vi. SIWES/IT Student Section

ORGANIZATION STRUCTURE

MANAGING DIRECTOR

↓

GIS STORE

↓

ADMIN SECTION ← → SECRETARY

↓

SIWES/ IT STUDENTS

CHAPTER THREE

3.0 DETAIL OF THE TRAINIG WORKS

CHAPTER THREE

During my SIWES attachment at **AJIBEZ NIG. LIMITED,**
I had the opportunity to participate in several field survey projects.
This chapter reports on my experiences and the skills I acquired during these projects.

The term CAD (Computer Aided Design) applies to a wide range of programs that allow th user to created drawings, plans, and designs electronically. AutoCAD is one such program and it main claim to fame is that it is relatively easy to use, it is very comprehensive in its ability to create 2D and some 3D drawings, and it is very popular. Seventy percent of the CAD users in the world use AutoCAD.

I Starting AutoCAD

You can start AutoCAD by either double clicking on the program Icon on the desktop or by clicking on the program name in the Start menu.
The program will start and after a minute or so should display a screen similar to the one shown below. The dialog box in the middle will aid you in getting started at either creating a new drawing or continuing your work on a drawing that is not finished.

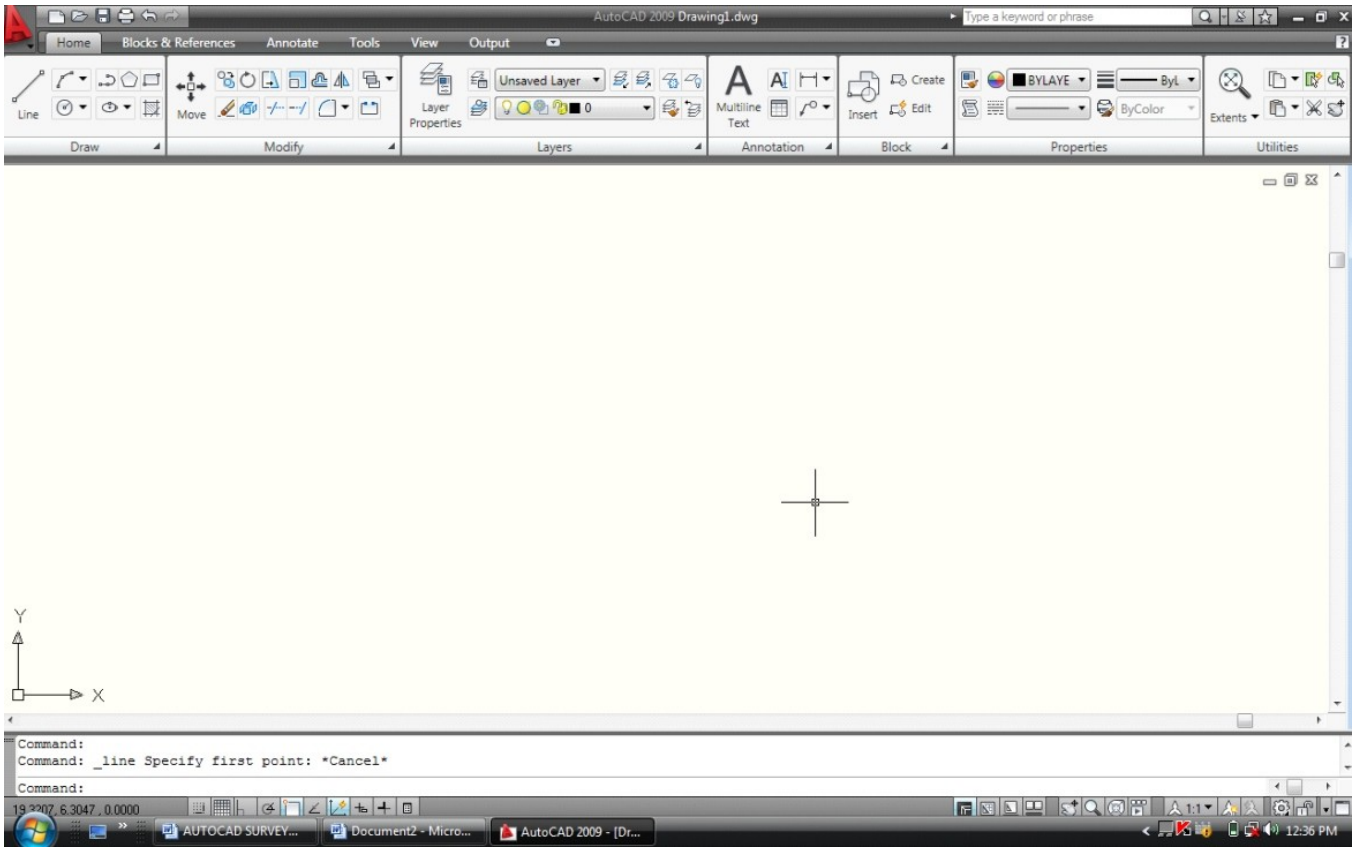
If you are continuing work on a drawing, click on the "A" icon in the extreme upper left corner of the window and Open->Drawing. A "Select File" dialog box will open allowing you to select the drawing file you want to open.

II The Initial Screen

AutoCAD has a very versatile user interface that allows you to control the program in several different ways. At the top of the window is a row of menus. Clicking on the Home, Insert, or Annotate causes another selection of menus to appear. This new selection of commands is frequently called a Ribbon or a Dashboard. You can operate the program by clicking on the icons in these menus.
Another method of using the program is typing in the command names. This is frequently faster than using drop down menus for frequently used commands because you do not have to search for the correct menu or icon.

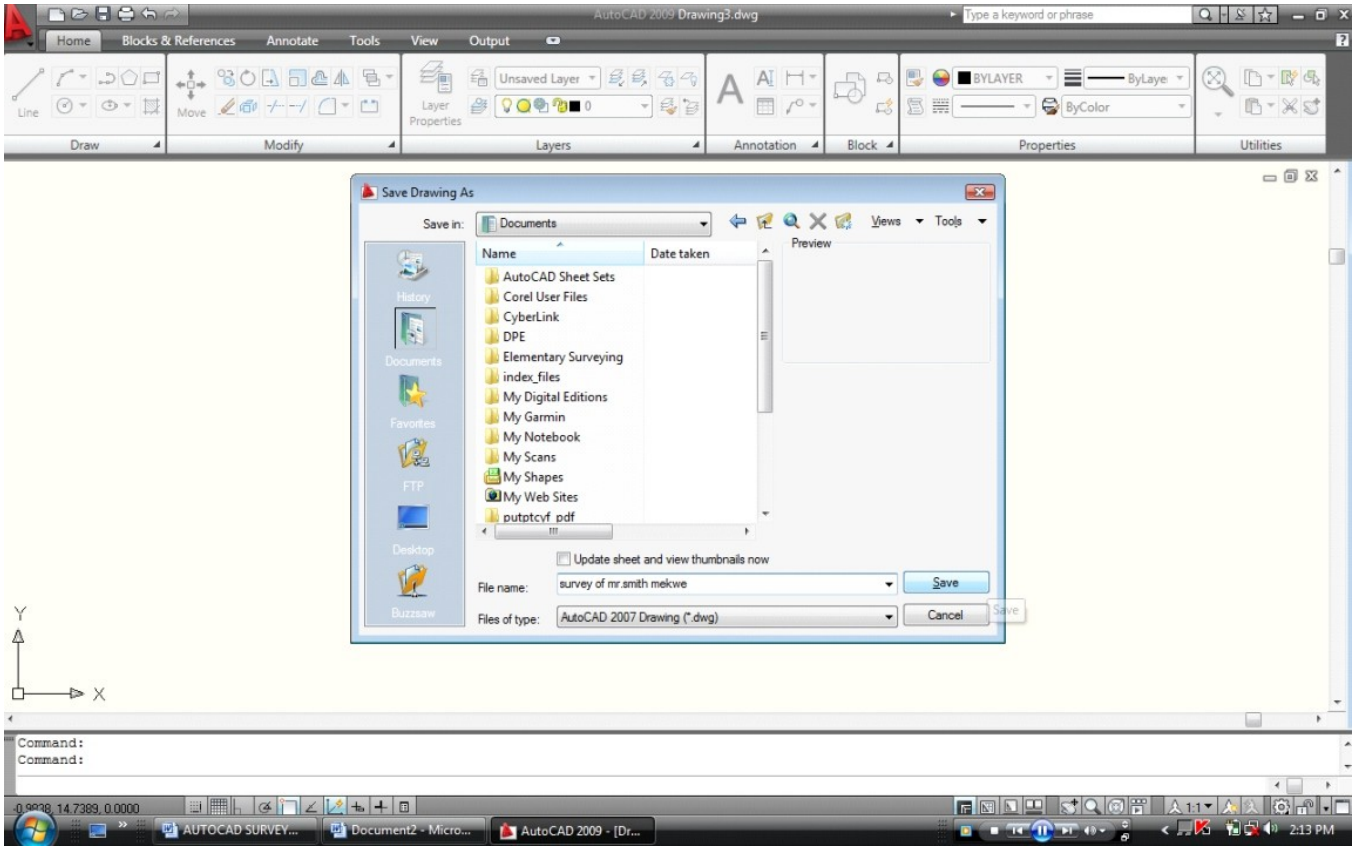
STEPS IN AUTO-CAD

Step 1: Open AutoCAD



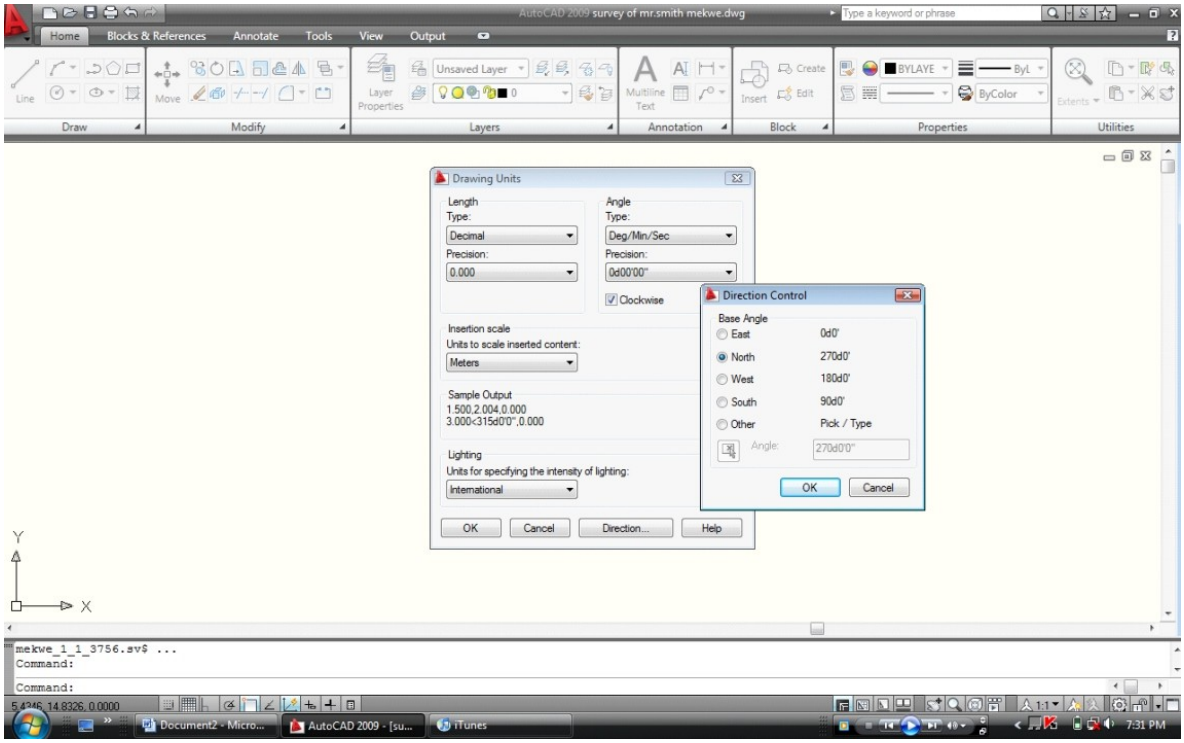
- Double-click on the AutoCAD icon on your computer to launch the application.
- Alternatively, you can search for AutoCAD in your computer's search bar and click on the application to open it.

Step 2: Name the Page



- Click on "File" in the top-left corner of the screen.
- Select "Save As" from the drop-down menu.
- Enter a name for your drawing in the "File Name" field.
- Choose a location to save your drawing and click "Save."

Step 3: Set Drawing Units



- Click on "Format" in the top menu bar.
- Select "Units" from the drop-down menu.
- In the "Drawing Units" dialog box, select the desired units for your drawing (e.g., feet, inches, meters, etc.).
- Click "OK" to apply the changes.

Step 4: Set Layers

- Click on the "Layer Properties" button in the "Layers" panel.
- In the "Layer Properties Manager" dialog box, click on the "New Layer" button.
- Enter a name for your new layer and select a color.
- Click "OK" to create the new layer.

Step 5: Start Plotting

- - Type ***line*** in the command box then press ***enter***. Or
- Click on the ***line*** symbol
- Type in the rectangular coordinate for the reference point.
- Specify first point: 355013.495,247063.130
- Specify next point or[Undo]:type @30.50<150d17’
- Specify next point or[Close/Undo]:type @61.00<240d06’
- Specify next point or[Close/Undo]:type @30.50<330d17’
- Type ***close***
- Type ***zoom extent*** or click on ***zoom extent***

Step 6: Set Beacon

- Click on the "Beacon" button in the "Tools" panel.
- In the "Beacon" dialog box, select the desired beacon type (e.g., point, line, etc.).
- Click "OK" to set the beacon.

Step 7: Write Beacon Number

- Click on the "Text" button in the "Annotate" tab.
- In the "Text" dialog box, enter the beacon number.
- Click "OK" to place the text.

Step 8: Plot Bearing and Distance

- Click on the "Bearing and Distance" button in the "Tools" panel.
- In the "Bearing and Distance" dialog box, enter the bearing and distance values.
- Click "OK" to plot the bearing and distance.

Step 9: Plot Road

- Click on the "Line" button in the "Draw" tab.
- Draw the road centerline using the "Line" command.
- Use the "Offset" command to create the road edges.

Step 10: Plot Detail

- Click on the "Detail" button in the "Tools" panel.
- In the "Detail" dialog box, select the desired detail type (e.g., tree, building, etc.).
- Click "OK" to plot the detail.

Step 11: Set Title

- Click on the "Text" button in the "Annotate" tab.
- In the "Text" dialog box, enter the title text.
- Click "OK" to place the title.

Step 12: Set Layer to Scale

- Click on the "Layer Properties" button in the "Layers" panel.
- In the "Layer Properties Manager" dialog box, select the layer to scale.
- Click on the "Scale" button and enter the desired scale factor.
- Click "OK" to apply the changes.

Step 13: Set Layer to Border

- Click on the "Layer Properties" button in the "Layers" panel.
- In the "Layer Properties Manager" dialog box, select the layer to border.
- Click on the "Border" button and select the desired border style.
- Click "OK" to apply the changes.

Step 14: Coordinate Lines/North Direction

- Click on the "Coordinate" button in the "Tools" panel.
- In the "Coordinate" dialog box, select the desired coordinate system.
- Click "OK" to set the coordinate system.
- Click on the "North" button in the "Tools" panel to set the north direction.

Step 15: Verge the Plot

- Click on the "Verge" button in the "Tools" panel.
- In the "Verge" dialog box, select the desired verge type (e.g., grid, axis, etc.).
- Click "OK" to verge the plot.

Step 16: Plot

- Click on the "Plot" button in the "Output" tab.
- In the "Plot" dialog box, select the desired plotter or printer.
- Choose the plot scale and orientation.
- Click "OK" to plot the drawing.

CHAPTER FOUR

INTRODUCTION TO CADASTRAL SURVEY

A cadastral survey is a type of survey that focuses on the definition, redefinition, and verification of property boundaries and rights. The primary purpose of a cadastral survey is to create and maintain an accurate and up-to-date record of land ownership and boundaries.

Key Objectives:

1. Boundary Definition: To define and mark the boundaries of individual parcels of land.
2. Property Rights:To verify and record the rights and interests of landowners and other stakeholders.
3. Land Administration: To provide a framework for the administration of land, including the registration of land titles and the management of land use.

Methods and Techniques:

1. Field Surveys: Cadastral surveys involve field measurements and observations to determine the location and extent of property boundaries.
2. Geographic Information Systems (GIS): GIS technology is used to create and maintain digital cadastral maps and databases.

3. **Remote Sensing**: Remote sensing techniques, such as aerial photography and satellite imagery, may be used to support cadastral surveying.

Importance:

1. **Secure Land Ownership**: Cadastral surveys provide a secure and transparent record of land ownership, reducing the risk of disputes and conflicts.
2. **Efficient Land Administration**: Cadastral surveys support efficient land administration, enabling governments to manage land use, collect taxes, and provide services.
3. **Economic Development**: Accurate and reliable cadastral data can facilitate economic development by providing a foundation for investment, trade, and commerce.

Challenges:

1. **Complexity**: Cadastral surveys can be complex and time-consuming, requiring specialized skills and expertise.
2. **Cost**: Cadastral surveys can be costly, particularly in areas with complex boundaries or disputed ownership.
3. **Data Management**: Managing and updating cadastral data can be a significant challenge, particularly in countries with limited resources and infrastructure.

Here is the continuation of the explanatory note on cadastral survey:

Benefits:

1. **Improved Land Ownership Security**: Cadastral surveys provide a secure and transparent record of land ownership, reducing the risk of disputes and conflicts.
2. **Increased Efficiency in Land Administration**: Cadastral surveys support efficient land administration, enabling governments to manage land use, collect taxes, and provide services.
3. **Enhanced Economic Development**: Accurate and reliable cadastral data can facilitate economic development by providing a foundation for investment, trade, and commerce.
4. **Better Decision-Making**: Cadastral surveys provide valuable data for decision-making, enabling policymakers to make informed decisions about land use, infrastructure development, and resource allocation.

Challenges and Limitations:

1. **Complexity**: Cadastral surveys can be complex and time-consuming, requiring specialized skills and expertise.
2. **Cost**: Cadastral surveys can be costly, particularly in areas with complex boundaries or disputed ownership.
3. Data **Management**: Managing and updating cadastral data can be a significant challenge, particularly in countries with limited resources and infrastructure.
4. **Disputes and Conflicts**: Cadastral surveys may reveal disputes and conflicts over land ownership and boundaries, requiring careful management and resolution.

Best Practices:

1. **Use of Technology**: Leverage technology, such as GIS and remote sensing, to support cadastral surveying and data management.
2. **Stakeholder Engagement**: Engage with stakeholders, including landowners, communities, and government agencies, to ensure that cadastral surveys are accurate, reliable, and responsive to their needs.
3. **Capacity Building**: Build the capacity of surveyors, land administrators, and other stakeholders to undertake cadastral surveys and manage cadastral data.
4. **Continuous Updating**: Regularly update cadastral data to reflect changes in land ownership, boundaries, and use.

CHAPTER FIVE

5.1 PROBLEM ENCOUNTERED

I encountered financial support during the training

5.2 SUGGESTION FOR THE IMPROVEMENT OF THE SCHEME

Based on my experience during the SIWES program, I propose the following suggestions to improve the scheme:

- **Better Supervision and Mentoring**

- Assign experienced supervisors/mentors to guide students throughout the program.

- Regular meetings and feedback sessions to ensure students are meeting program objectives.

- **Enhanced Orientation Program**

- Conduct a comprehensive orientation program for students before the commencement of the SIWES program.

- Provide detailed information on program objectives, expectations, and evaluation criteria.

- **Improved Logistical Support**

- Provide adequate logistical support, including transportation, accommodation, and equipment.

- Ensure that students have access to necessary resources and facilities.

- **Regular Evaluation and Feedback**

- Conduct regular evaluations and feedback sessions to assess student performance.

- Provide constructive feedback to students to improve their performance.

5.3 RECOMMENDATION

There is no doubt that some students during their Industrial Training do not have the opportunity of being exposed or intentional do not attend SIWES PROGRAMED.Those external supervisors should be sent to the various industrial training attachment

areas and centers to find out if the Industrial Training is suitable and functional or even

at times do not see any place of attachment.