A REPORT ON

STUDENTS INDUSTRIAL WORK EXPERIENCESCHEME (SIWES)

HELD AT

YEMI OYEWUMI & CO NIG. LIMITED

KLM 4, ONDO/IFE ROAD, PELE ONDO STATE

FROM
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BY
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SUBMITTED TO

THE DEPARTMENT OF SURVEY AND GEO-INFORMATICS, INSTITUTE OF ENVIRONMENTAL STUDIES, KWARA STATE POLYTECHNIC, ILORIN

IN PARTIAL FULFILMENT OF THE REQUIREMENT FOR THE AWARD OF NATIONAL DIPLOMA (ND) IN SURVEY AND GEO-INFORMATICS.

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DEDICATION

I dedicate this Students Industrial Work Experience Scheme (SIWES) report to God Almighty for his grace and mercy towards the completion of the SIWES programme.

ACKNOWLEDGEMENT

My acknowledgement goes to God almighty, my parents, Kwara State Polytechnic, Ilorin, my supervisors at YEMI OYEWUMI & CO NIG. LIMITED and to my friends.

REPORT OVERVIEW

This is an industrial attachment report for the Students' Industrial Work Experience (SIWES) programme carried out at **YEMI OYEWUMI & CO NIG. LIMITED, KLM 4, Ondo/Ife Road, Pele Ondo State** *within the period of three months from August, 202**4** to November, **2024***

The report comprises the background of SIWES, the description of the organization, its aims and objectives, the experiences gained as an industrial training student and the summary, conclusions and recommendations.

It has a total of 5 chapters with sub-chapters. It also has the preliminary pages, such as the title page, report overview and table of contents and recommendations on the improvement of scheme.

TABLE OF CONTENTS

Title page		i
Dedication		ii
Acknowledgment		iii
Report Overview		iv
CHAPTER ONE: INTRODUCTION		**1**
1.1	Background of SIWES	1
1.2	Objectives of SIWES	1
1.3	History of SIWES	1
CHAPTER TWO: HISTORY OF THE ORGANIZATION		
2.1	Brief History of YEMI OYEWUMI & CO NIG. LIMITED	3
2.2	Scope of Training	3
CHAPTER THREE: INTRODUCTION TO SITE AND INSPECTION		**5**
3.1	Introduction to Site	5
3.2	Site Inspection Using GPS	5
3.3	Reconnaissance Survey	5
3.4	Site Review	5
3.5	Plotting on AutoCAD	6
3.6	Land Demarcation	6
3.7	Pillar Arrangement and Establishment	6
3.8	Filling Office Ledger with Pillar Numbers	7
CHAPTER FOUR: FIELD WORK AND PRACTICAL SURVEYING		
4.1	Picking of Points Using GPS	8
4.2	Setting Out	8
4.3	Writing Pillar Number on Site	8
4.4	Printing of Plan	8
4.5	Traverse Survey	9
4.6	Introduction to Surveying Instruments	9
4.7	Computation of Forward and Backward Bearings	9
4.8	Pegging of Points	9
49	Tracing Out Land Boundaries	10
CHAPTER FIVE: CONCLUSION AND RECOMMENDATIONS		**11**
5.1	Summary of Experience Gained	11
5.2	Challenges Faced During TrainingX	11
5.3	Recommendations for Future SIWES Students	11
5.4	Conclusion	12

CHAPTER ONE

INTRODUCTION

1.1 Background of SIWES

The Student Industrial Work Experience Scheme (SIWES) is a skills development program designed to prepare students for industrial work by bridging the gap between theory and practice. It provides an opportunity for students to gain practical knowledge and hands-on experience in their field of study.

1.2 Objectives of SIWES

1. To provide students with industrial skills and needed experience while the course of study.
2. To create conditions and circumstances, this can be as close as possible to the actual work flow.
3. To prepare specialists who will be ready for any working situations immediately after graduation.
4. To make student gets the experience on the equipment that may not be available within the walls of an educational institution.
5. To give students the ability to try and apply the given knowledge.

The objectives of SIWES programme are all about strengthening future employees. Such program is successful attempt to help students to understand the underlying principles of their future work. After passing the programs, the students can concentrate on the really necessary factors of his or her work.

1.3 HISTORY OF SIWES.

Students Industrial Work Experience Scheme was initiated by the Industrial Training Fund (I.T.F) in 1973 so as to complement the theoretical knowledge acquired in higher institutions with practical experience. It is coordinated by I.T.F and N.U.C and is under the umbrella of the Ministry of Education. It gives a unique opportunity to student to be

introduced to the industrial environment and obtain the technical knowledge while studying

It was established as a result of realization by the Federal Government in 1971, of the need to introduce a new dimension to the qualify and standard of education detained in the country in order to achieve the much needed technology advancement, because it has been shown that a correlation exist in a country level of economic, technological development and its level of investment in manpower.

It is funded by the Federal Government of Nigeria and operated by I.T.F and coordinated agency are (NUC, NCCE, NBTF) Employees of labours and the institution

CHAPTER TWO

2.1 BRIEF HISTORY OF THE ORGANIZATION

YEMI OYEWUMI & CO NIG. LIMITED YEMI OYEWUMI & CO NIG. LIMITED is a reputable surveying and geo-informatics firm that specializes in land surveying, geospatial analysis, and mapping services. The company has been actively involved in various surveying projects, ranging from cadastral and engineering surveys to geodetic and hydrographic surveys. With a team of experienced professionals and state-of-the-art equipment, the firm plays a significant role in the development of infrastructure and land administration in Nigeria. During my training, I had the opportunity to work under the guidance of seasoned surveyors who provided me with hands-on experience and mentorship.

YEMI OYEWUMI & CO NIG. LIMITED is a reputable land surveying firm specializing in cadastral surveys, engineering surveys, and geo-spatial data analysis. The company has played a significant role in land mapping and surveying projects in Nigeria.

2.2 SCOPE OF TRAINING

During the SIWES program at YEMI OYEWUMI & CO NIG. LIMITED, I was exposed to various aspects of land surveying, including site inspections, plotting, demarcation, GPS operations, and surveying computations. The training covered both fieldwork and office-based activities to ensure comprehensive learning. I was exposed to various surveying activities, including:

- Site introduction and reconnaissance, where I learned how to analyze the environment before conducting a survey.
- Site inspection using GPS technology, which allowed me to understand the accuracy and importance of GPS in land surveying.
- Land demarcation and pillar establishment, giving me practical exposure to the process of boundary setting.

- Plotting survey data using AutoCAD, where I enhanced my technical drawing and mapping skills.
- Picking of points and setting out survey control points, which improved my understanding of positioning and measurement.
- Computation of forward and backward bearings, an essential part of land surveying calculations.
- Pegging of points and tracing land boundaries, helping me gain confidence in physical demarcation and boundary identification.
- Printing of plans and documentation of survey reports, ensuring that I understood the importance of proper record-keeping in surveying projects.

The training provided me with valuable practical experience, allowing me to apply my theoretical knowledge to real-world projects. I also had the opportunity to work alongside experienced surveyors, which enhanced my understanding of industry best practices and professional standards. This experience has greatly improved my confidence in the field of surveying and has prepared me for future challenges in my career.

CHAPTER THREE

SITE INTRODUCTION AND INSPECTION

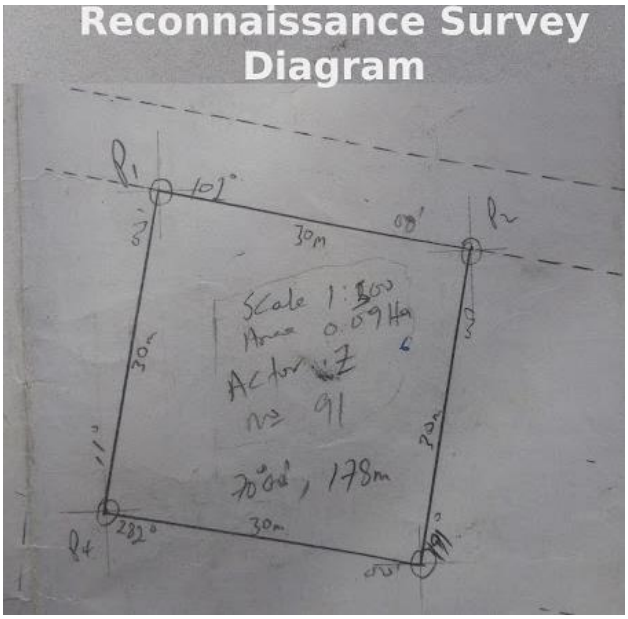
3.1 Introduction to Site On my first day at YEMI OYEWUMI & CO NIG. LIMITED, I was introduced to the surveying site. I was given an overview of the location, the purpose of the survey, and the key objectives of our fieldwork. I learned how to assess a site before beginning any survey work, considering factors such as terrain, accessibility, and potential obstacles.

3.2 Site Inspection Using GPS I was taught how to inspect a site using GPS technology. Under the supervision of experienced surveyors, I used a handheld GPS device to collect coordinates and identify key points on the land. This practical experience helped me understand the importance of GPS in modern surveying and how it enhances accuracy in data collection.

3.3 Reconnaissance Survey Before any major survey work, I participated in a reconnaissance survey. This involved walking around the site to identify existing boundary markers, notable landmarks, and potential challenges. I learned how to take preliminary measurements, mark control points, and plan the best approach for conducting a full survey.

3.4 Site Review After completing the initial site inspection and reconnaissance, I assisted in reviewing the collected data. I helped compare the GPS coordinates with existing records to ensure accuracy. This process reinforced my understanding of data validation and quality control in surveying.

These hands-on experiences gave me a deeper appreciation for the importance of site preparation before conducting a survey. I learned how to use professional equipment effectively and gained practical insights into fieldwork planning and execution.



GPS ROVER

MY EXPERIENCE ON SURVEYING TECHNIQUES AND APPLICATIONS

3.5 Plotting on AutoCAD One of the essential skills I acquired during my training was plotting on AutoCAD. I was taught how to input survey data into the software, create accurate site plans, and generate layouts for land demarcation. Through hands-on practice, I became proficient in using AutoCAD tools to design survey maps, which helped me improve my technical drawing and digital mapping skills.

3.6 Land Demarcation I actively participated in land demarcation projects, where I learned the importance of properly marking land boundaries to prevent disputes. I was involved in setting out demarcation lines using coordinates obtained from GPS devices and translating them onto the physical land using markers and pegs. This process gave me a deep understanding of land division and allocation in surveying.

3.7 Pillar Arrangement and Establishment As part of my training, I was involved in the arrangement and establishment of survey pillars. I learned how to identify the correct positions for placing pillars based on the survey plan and how to properly install them to ensure longevity and accuracy. This task required precision and adherence to surveying standards to ensure the correctness of land boundaries.

3.8 Filling Office Ledger with Pillar Numbers One of my responsibilities in the office was to fill the office ledger with pillar numbers. This involved carefully recording the assigned pillar numbers for each surveyed land and ensuring that all data matched the field records. This task helped me develop attention to detail and reinforced my understanding of proper documentation in surveying.

These experiences significantly enhanced my technical and practical skills in surveying. Each task allowed me to apply my classroom knowledge to real-world scenarios, strengthening my confidence in the field of survey and geo-informatics.

CHAPTER FOUR

MY EXPERIENCE GAINED ON FIELD WORK AND PRACTICAL SURVEYING

4.1 Picking of Points Using GPS One of the most practical aspects of my training was learning how to pick points using GPS. Under the supervision of my mentor, I was assigned the task of using a GPS device to mark out and collect coordinates of specific points on the site. This exercise improved my understanding of georeferencing and data collection. Initially, I faced difficulties in accurately positioning the receiver, but with time and guidance, I became more confident in handling the equipment.

4.2 Setting Out I actively participated in setting out, a crucial process in surveying that involves marking the positions of structures or boundaries on the ground. I worked with total stations and theodolites to ensure precise alignment of points. My task was to assist in driving pegs into the designated points, and I also learned how to double-check our work using measurement tapes and GPS devices. This experience taught me the importance of accuracy and patience in surveying work.

4.3 Writing Pillar Number on Site As part of land demarcation, I was responsible for writing pillar numbers on site. After the establishment of pillars, I carefully wrote their assigned numbers using waterproof markers to ensure longevity. I also double-checked each number with the site ledger to avoid errors. This task, though simple, reinforced my attention to detail and accuracy.

4.4 Printing of Plan Once the fieldwork was completed, I was involved in the finalization of survey plans. I learned how to transfer data from the field notes into AutoCAD and other software for proper mapping. After verifying the accuracy of the plotted points, I assisted in printing the final survey plan. Seeing my work transformed into a detailed plan gave me a sense of accomplishment and made me appreciate the importance of data presentation in surveying.

4.5 Traverse Survey I also gained experience in traverse surveys, which involved establishing a network of control points for mapping. I assisted in setting up the total station, taking angular and distance measurements, and computing coordinates. I learned how to perform both closed and open traverses and how to correct minor errors in readings. This was one of the most technical aspects of my training, and I found it both challenging and rewarding.

Through these field activities, I developed a deep understanding of practical surveying work. The hands-on experience helped me grasp concepts that were previously theoretical, and I became more proficient in using modern surveying instruments. This chapter of my training was crucial in building my confidence and technical competence in the field.

MY EXPERIENCE GAINED ON SURVEYING INSTRUMENTS AND COMPUTATION

4.6 Introduction to Surveying Instruments During my training, I was introduced to various surveying instruments such as the total station, GPS receiver, theodolite, leveling instrument, and measuring tape. I was guided on how to set up and use each instrument correctly. I found the total station particularly fascinating because of its accuracy and efficiency in data collection. Initially, I struggled with adjusting the instrument properly, but with time and practice, I became more comfortable handling it.

4.7 Computation of Forward and Backward Bearings One of the major tasks I performed was the computation of forward and backward bearings. I learned how to take angular measurements and apply trigonometric formulas to calculate coordinates. Under supervision, I manually computed forward and backward bearings using field data. It was challenging at first, but as I gained more experience, I improved my accuracy and speed in performing these computations.

4.8 Pegging of Points Pegging of points was another important task I participated in. I worked alongside my supervisors to place pegs at predetermined locations based on the survey plan. I used a measuring tape and total station to ensure accuracy. I also learned

how to double-check our placements to confirm that they matched the calculated coordinates. This task improved my understanding of precision in fieldwork and the importance of teamwork in surveying projects.

4.9 Tracing Out Land Boundaries I was actively involved in tracing out land boundaries using survey instruments and existing records. I assisted in identifying boundary markers, verifying coordinates, and ensuring that all marked points aligned with official land documents. This exercise helped me understand the legal and technical aspects of land demarcation, and I gained practical experience in resolving discrepancies that sometimes arose due to overlapping boundaries or errors in previous surveys.

CHAPTER FIVE

CONCLUSION AND RECOMMENDATIONS

5.1 Summary of Experience Gained

During my SIWES training, I gained hands-on experience in various surveying activities; including GPS operations, AutoCAD plotting, site inspections, and land demarcation. I also improved my technical competence in handling surveying instruments and computations. Working with professionals in the field gave me deeper insight into practical land surveying, and I was able to apply classroom knowledge to real-world scenarios.

5.2 Challenges Faced During Training

During the training, I encountered several challenges, including:

- Harsh weather conditions that sometimes made field operations difficult.
- Technical issues with GPS and surveying instruments, requiring troubleshooting and patience.
- Difficult terrain and accessibility challenges that made some sites hard to navigate.
- Time constraints in completing fieldwork and data processing, requiring effective time management.

5.3 Recommendations for Future SIWES Students

Based on my experience, I recommend the following for future SIWES students:

- Adequate preparation and familiarization with surveying equipment before going to the field.
- Effective time management and planning for field activities to meet deadlines efficiently.
- Continuous learning and practice with AutoCAD and other surveying software to improve technical proficiency.

- Collaboration with experienced professionals to gain deeper insights into best practices in land surveying.

5.4 Conclusion

My SIWES training was a valuable and rewarding experience that bridged the gap between theoretical knowledge and practical application. The exposure I received at YEMI OYEWUMI & CO NIG. LIMITED significantly enhanced my skills in surveying and geo-informatics. I was actively involved in both fieldwork and office tasks, which helped me, understand real-world surveying challenges and develop solutions.

Working with surveying instruments such as GPS, Theodolites, and Total Stations, as well as software like AutoCAD, greatly improved my technical expertise. The training also taught me the importance of accuracy, precision, and teamwork in executing surveying projects successfully.

Despite the challenges faced during the training, I developed resilience, adaptability, and problem-solving skills that will be beneficial in my future career. The experience prepared me for the demands of the surveying profession and reinforced the importance of continuous learning and self-improvement.

In conclusion, the SIWES training was an essential part of my academic and professional growth. It provided me with the practical knowledge and confidence needed to excel in the dynamic field of surveying and geo-informatics. I am grateful for the opportunity to have participated in this program and look forward to applying the skills I have gained in my future endeavors.