



**TECHNICAL REPORT
ON
STUDENT INDUSTRIAL WORK EXPERIENCE SCHEME (SIWES)**

**HELD AT
MLF GLOBAL MART
SUITE 202 & 207 100% MERCY PLAZA, 39 CAMP DAVIDS ROAD AYOBO,
LAGOS STATE.**

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**SUBMITTED TO
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DEDICATION

This work is dedicated to Almighty Allah for His love, mercy, guidance, and protection throughout this journey and beyond.

It is also dedicated to my loving and supportive parents, **Mr. & Mrs. Abdulrasaq**, as well as my wonderful brothers and sisters for their unwavering love, support, and encouragement.

ACKNOWLEDGEMENT

I would like to first and foremost express my profound gratitude to almighty Allah for his protection, guidance, and blessings throughout my Siwes Training.

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My special thanks go to the management of [company name] and my supervisor for their invaluable support and guidance in making this experience a success.

I am deeply grateful to my beloved parents, **Mr. & Mrs. Abdulrasaq**, for their unwavering love, encouragement, and support throughout this journey.

Additionally, I sincerely appreciate my colleagues for their cooperation, my siblings for their constant support, and my friends for their encouragement and advice.

ABSTRACT

The relevance of the Student Industrial Work Experience Scheme (SIWES) to the Department of Computer Science was explored in this study. Practical applications were utilized to address the research questions, and the findings were compiled and analyzed across the chapters that constitute this report and project work.

Based on the analysis, key findings revealed that students gained hands-on experience through on-the-job training. The SIWES program further provided exposure to the proper use and handling of information technology (IT) equipment and development at **MLF Global Mart**.

However, the study concluded that students' performance could be significantly enhanced if they are adequately provided with research materials and facilities, assigned proper supervision by experienced supervisors, and given well-structured orientation on equipment and machinery handling.

Therefore, the researcher recommends the following:

- Employers should be encouraged to accept students for industrial training.
- Each student should be assigned a dedicated supervisor for guidance.
- Students should be allowed to gain early exposure to IT practices to develop a deeper understanding before the commencement of the program, ensuring improved performance.

CHAPTER 1

Student Industrial Work Experience Scheme (SIWES)

The **Student Industrial Work Experience Scheme (SIWES)** is a skills development program initiated by the **Industrial Training Fund (ITF)** in 1973 to bridge the gap between theoretical knowledge and practical application for students in Engineering, Technology, and related fields in Nigerian higher institutions. It provides students with hands-on experience by exposing them to industry-standard work methods, equipment, and machinery that may not be available in their academic institutions.

SIWES was established by the **ITF** to address the lack of adequate practical skills among Nigerian graduates, which are essential for employment in various industries. Through this program, students gain industry-based skills that facilitate a smooth transition from the classroom to the professional workforce. The scheme also familiarizes students with real-world applications of their academic training, ensuring they develop competence in handling industry-specific tools and equipment.

Participation in **SIWES** has become a mandatory requirement for the award of **Diploma and Degree** certificates in selected disciplines across most Nigerian tertiary institutions, as mandated by the national education policy.

Duration: Four months for Polytechnic students.

Aim of the Study

The primary objective of this study is to evaluate the impact of **SIWES** on technical skill development in the Nigerian economy. This assessment will enable higher institutions and relevant stakeholders to evaluate their roles and contributions toward the success of the scheme.

THE ROLE OF THE INDUSTRIAL TRAINING FUND (ITF)

The **Industrial Training Fund (ITF)** was established under **Decree No. 47 of 1971** and is responsible for promoting and facilitating industrial skill acquisition. Its goal is to build a well-trained indigenous workforce capable of meeting the economy's demands and fostering national development.

In the implementation of **SIWES**, the **ITF** plays several key roles, including:

- Supervising students during their industrial training.
- Organizing orientation programs to prepare students for the experience.
- Disbursing financial allowances to eligible students.

THE SCOPE AND IMPORTANCE OF SIWES

The **SIWES** scheme applies to all science and technology-related students in **monotechnics, polytechnics, and universities** across Nigeria. Given the large number of participants, the program is effectively managed through collaboration with both public and private industries.

The significance of **SIWES** includes:

- Providing students with industry-specific knowledge and hands-on experience in their fields of study, particularly in technology-based disciplines.
- Enhancing students' ability to apply theoretical knowledge to solve real-world problems.
- Bridging the gap between classroom learning and industrial practice, thereby improving students' employability.

THE ROLE OF STUDENTS AND INSTITUTIONS

Student Responsibilities:

Students are expected to fully participate in the **SIWES** program to maximize its benefits. To achieve this, they should:

- Show commitment and dedication to learning.
- Be proactive in asking questions and seeking clarification.
- Adhere to the rules and regulations of the organization where they are placed.

Institutional Responsibilities:

Higher institutions play a crucial role in ensuring the smooth execution of **SIWES** by:

- Identifying suitable industrial placement opportunities for students.
- Providing financial support for **SIWES** supervision.
- Assessing students' performance during and after the program.

Through effective collaboration among students, institutions, and industries, **SIWES** continues to be a vital tool in equipping Nigerian graduates with the skills necessary for national development.

CHAPTER 2

About the Organization

Our **Information and Communications Technology (ICT)** organization, **MLF Global Mart**, was established on **June 2, 2011**. Often referred to as an IT organization, it serves as a critical component of modern businesses and institutions. Its primary objective is to manage and optimize technology to support the organization's goals, operations, and strategic objectives. Below is an overview of the key functions of our ICT organization:

Infrastructure Management

MLF Global Mart is responsible for maintaining and expanding its technological infrastructure, including networks, servers, data centers, and cloud services. The organization ensures these components operate efficiently, securely, and reliably.

Software Development and Application Management

The organization focuses on developing and maintaining software applications that align with its needs. This includes custom software development, integration of third-party applications, and ensuring seamless system functionality.

Information Security

Protecting sensitive data and systems is a top priority. MLF Global Mart implements security measures such as firewalls, antivirus software, encryption, and employee cybersecurity training to safeguard against threats.

User Support and Helpdesk

Providing technical support to end-users is a crucial role. This involves troubleshooting issues, offering guidance, and ensuring smooth interaction with technology for employees and stakeholders.

Data Management and Analytics

The organization oversees data storage, retrieval, and analysis to support informed decision-making. Business intelligence tools and data analytics technologies are leveraged to gain insights and improve operations.

Project Management

Managing IT projects efficiently is essential. The organization utilizes project management methodologies to ensure the successful completion of technology initiatives within budget and on schedule.

Vendor Management

MLF Global Mart collaborates with technology vendors and suppliers, negotiating contracts, maintaining vendor relationships, and assessing third-party services and products for efficiency and value.

Compliance and Regulatory Adherence

Adhering to industry regulations and standards is vital, especially in sectors such as finance and e-commerce. Compliance measures ensure data protection and legal adherence.

Innovation and Strategy

Staying updated with technological advancements is crucial. The organization explores emerging technologies and develops IT strategies that align with business objectives for future growth.

Cost Management

Budgeting and controlling IT expenses is critical to ensuring technology investments are sustainable and provide maximum value to the organization.

Disaster Recovery and Business Continuity

MLF Global Mart has backup and recovery strategies in place to minimize the impact of disasters such as data breaches or system failures, ensuring business continuity.

Training and Skill Development

Keeping IT staff updated with the latest technologies and certifications is essential for maintaining a skilled and efficient workforce.

Conclusion

In summary, MLF Global Mart's ICT department plays a crucial role in leveraging technology for business growth. Its responsibilities span infrastructure management, software development, cybersecurity, user support, data management, and strategic planning, all aimed at achieving the organization's digital transformation and operational efficiency.

CHAPTER 3

ACTIVITIES DURING THE PROGRAMS AS FOLLOWS:

3.1 MICROSOFT OFFICE (WORD, EXCEL, POWERPOINT)

Microsoft Office is a powerful suite of applications used for word processing, data analysis, and presentations. I worked with **Microsoft Word, Excel, and PowerPoint**, learning how to utilize their features effectively.

Microsoft Word

Microsoft Word is used for document creation, editing, and formatting. Some of its key features include:

- **Text formatting** (font styles, sizes, bold, italics, underline).
- **Page layout** (margins, orientation, columns, headers, and footers).
- **Tables and Charts** for organizing and presenting information.
- **Spell check and grammar tools** for professional document writing.

Example Task: Creating a Professional Report

To create a well-structured report:

1. Open Microsoft Word and select a **Blank Document**.
2. Insert a **Title** and format it using bold and a larger font.
3. Use **headings and subheadings** for organization.
4. Add a **table** to display structured information.
5. Insert **page numbers, headers, and footers** for a professional touch.

Microsoft Excel

Excel is a spreadsheet application used for organizing, analyzing, and visualizing data. Features include:

- **Formulas and Functions** (SUM, AVERAGE, IF statements).
- **Charts and Graphs** to visualize data trends.
- **Pivot Tables** for data summarization.
- **Conditional Formatting** to highlight important data.

Example Task: Creating a Student Grade Sheet

1. Open Excel and create a table with columns for **Name, Subject, Score, and Grade**.
2. Enter student names and scores.
3. Use the formula `=IF (B2>=70, "Pass", "Fail")` to auto-generate grades.
4. Insert a **bar chart** to visualize students' performance.

Microsoft PowerPoint

PowerPoint is a presentation software used to create slideshows. Features include:

- **Slide Templates** for professional design.
- **Animations and Transitions** to enhance engagement.
- **Multimedia Integration** (videos, images, and audio).
- **Slide Master** for uniform slide formatting.

Example Task: Creating a Business Presentation

1. Open PowerPoint and select a **Blank Presentation**.
2. Add a **Title Slide** with a background image.
3. Use **bullet points** to summarize key ideas.
4. Apply **transitions** between slides for smooth navigation.
5. Insert **charts and images** to illustrate data.

3.2 GRAPHIC DESIGN (CANVA, CORELDRAW, PHOTOSHOP - BASIC)

Graphic design involves creating visual content for branding and communication. I worked with **Canva, CorelDraw, and Photoshop** to design professional graphics.

Canva

Canva is a simple yet powerful online design tool. Key features include:

- **Drag-and-drop editor** for easy customization.
- **Pre-designed templates** for flyers, posters, and presentations.
- **Text and Image Editing** tools for personalized designs.

Example Task: Creating a Social Media Flyer

1. Open Canva and select **Flyer Template**.
2. Choose a **background image** and adjust opacity.

3. Add **text** with appropriate fonts and colors.
4. Insert **icons and shapes** for extra design elements.
5. Export the design in **PNG or PDF format**.

CorelDraw

CorelDraw is a vector-based graphic design software. Features include:

- **Pen Tool** for precise drawing.
- **Layering System** for better design organization.
- **Color Palette** for custom color selection.

Example Task: Designing a Simple Logo

1. Open CorelDraw and create a **new document**.
2. Use the **Ellipse Tool** to draw a circular shape.
3. Add a **business name** using the Text Tool.
4. Apply **gradient fill** for color effects.
5. Save as **SVG or PNG**.

Photoshop (Basic)

Photoshop is a professional image editing tool. Features include:

- **Layers Panel** for non-destructive editing.
- **Filters and Effects** for image enhancements.
- **Selection Tools** for object manipulation.

Example Task: Editing a Profile Picture

1. Open an image in **Photoshop**.
2. Use the **Crop Tool** to adjust the frame.
3. Apply a **brightness/contrast filter**.
4. Use the **Spot Healing Brush** to remove blemishes.
5. Save as **JPEG or PNG**.

3.3 WEB DESIGN (HTML, CSS, JAVASCRIPT)

Web design involves creating user-friendly websites. I used **HTML, CSS, and JavaScript** in **VS Code** for web development.

HTML & CSS

HTML structures a webpage, while CSS styles it. Features include:

- **HTML Elements:** Headings, paragraphs, lists, images.
- **CSS Styling:** Colors, fonts, layout.

Example Task: Creating a Simple Webpage

```
<!DOCTYPE html>
<html>
<head>
  <title>My Webpage</title>
  <style>
    body { background-color: lightblue; text-align: center; }
    h1 { color: darkblue; }
  </style>
</head>
<body>
  <h1>Welcome to My Website</h1>
  <p>This is a simple HTML and CSS webpage.</p>
</body>
</html>
```

JavaScript

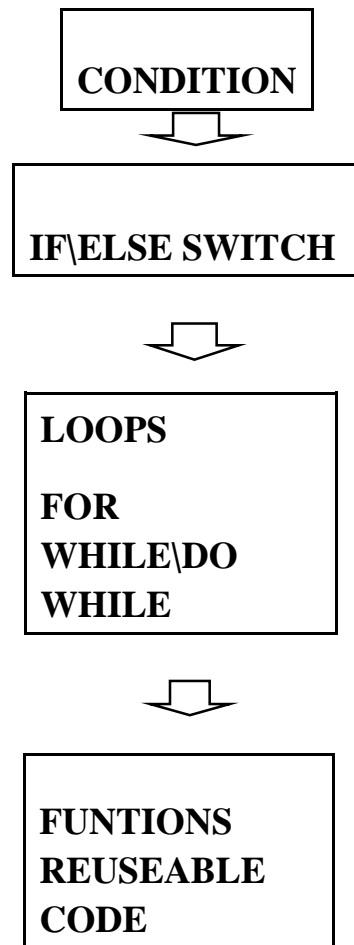
JavaScript adds interactivity. Features include:

- **Event Handling** (e.g., button clicks).
- **Form Validation** (checking user input).

Example Task: Adding a Button Alert

```
<button onclick="showMessage()">Click Me</button>
<script>
function showMessage() {
  alert("Hello, welcome to my webpage!");
}
</script>
```

JAVASCRIPT CONTROL STRUCTURE



CHAPTER 4

CHALLENGES OF ICT DURING SIWES

The **ICT environment** has significantly transformed various professional fields, introducing new tools for information exchange and changing traditional methods of operation. At **MLF Global Mart**, I encountered several challenges related to **Information and Communication Technology (ICT)**, which impacted workflow efficiency and professional adaptation. These challenges required a shift in skills, roles, and organizational structures, as discussed below:

4.1 Digital Transformation

ICT has created a **digital workspace** that has led to the widespread adoption of **digitization**, where information is converted from physical formats to digital form for better storage and accessibility. Digital tools now play a vital role in processing, retrieving, and managing information efficiently.

During my SIWES at **MLF Global Mart**, I noticed that adapting to this digital environment required new skills, particularly in managing digital content, website operations, and data organization. The transition from traditional methods to a fully digital workspace required training and an understanding of **cloud storage, database management, and content organization techniques**.

4.2 Emerging Career Specializations

With the rapid expansion of ICT, **new career opportunities** have emerged, requiring professionals to go beyond their traditional roles. The digital environment has given rise to **specialized fields** such as:

- **Digital Content Management** – Handling and organizing digital data efficiently.
- **Web Development & Design** – Creating and managing online platforms for businesses.
- **Data Analytics** – Using ICT tools to analyze and interpret business data.

At **MLF Global Mart**, I observed that professionals needed to develop expertise beyond their primary roles, engaging in **web content management, digital marketing, and online customer interactions**. This shift required continuous learning and upskilling to stay relevant in a technology-driven workspace.

4.3 Challenges in ICT Adoption

Despite the benefits, implementing ICT tools comes with challenges, including:

- **Learning Curve** – Many employees struggle to adapt to digital tools.
- **Internet Reliability** – Inconsistent network connectivity can disrupt workflow.
- **Security Concerns** – Digital platforms require strong **cybersecurity measures** to prevent data breaches.

During my SIWES, I experienced difficulties with **software adaptation, network issues, and cybersecurity awareness**, which highlighted the need for **continuous training and technical support**.

Conclusion

The integration of ICT into the workplace has reshaped job roles and introduced both opportunities and challenges. At **MLF Global Mart**, I learned that **adapting to digital tools, developing ICT skills, and addressing cybersecurity risks** are essential for efficient operations in a tech-driven work environment. Overcoming these challenges requires **continuous learning, innovation, and proactive digital management** to remain competitive in the evolving digital age.

CHAPTER 5

CONCLUSION

During my four-month **SIWES (Student Industrial Work Experience Scheme)** at **MLF Global Mart**, I acquired valuable technical skills in **Website Design, Microsoft Office, and Graphic Design**, as well as additional competencies such as **networking and managerial skills**. This experience provided me with the opportunity to apply theoretical knowledge gained in the classroom to real-world problem-solving. The SIWES program has been highly beneficial, as it allowed me to gain hands-on experience and practical knowledge that would not have been possible within a traditional lecture setting.

RECOMMENDATION

Based on the challenges encountered during the SIWES program, I recommend the following improvements:

1. **Extension of SIWES Duration:** The duration of the program should be increased to allow students to gain deeper practical experience and exposure to industry practices.
2. **Provision of Monthly Allowances:** The **Industrial Training Fund (ITF)** should provide monthly stipends to students to help cover transportation and other expenses, reducing financial constraints during the training period.
3. **Institutional Support for Placement:** Both **educational institutions and ITF** should actively assist students in securing suitable placements to ensure a smooth and timely start to the program.
4. **Effective Coordination and Supervision:** The organizations responsible for **SIWES, including ITF, NUC, NBTE, and NCCE**, should collaborate to establish a structured system that guarantees effective supervision. Efforts should be made to ensure students are engaged in activities relevant to their field of study.
5. **Early Liaison with Industries:** The managing bodies should establish partnerships with industries in advance to minimize student rejection rates and ensure sufficient placement opportunities.
6. **Timely Issuance of Logbooks and IT Letters:** Logbooks and IT placement letters should be provided at the end of the **first semester exams** rather than after the second semester to give students enough time to secure relevant training positions.

7. **Employment of Career Development Experts:** Institutions should consider hiring professionals specialized in career development to oversee industrial placements and provide guidance to students for a more structured learning experience.

By implementing these recommendations, the **SIWES program** can be more effective in providing students with **practical, industry-relevant experience**, ultimately preparing them for future career opportunities.