TECHNICAL REPORT ON STUDENT INDUSTRIAL WORK EXPERIENCE SCHEME (SIWES)

SIWES REPORT

UNDERTAKEN AT

LMD AUTOMOBILE COMPANY

NO 7 ARILEWO STREET, AIRPORT, ILORIN KWARA STATE

BY

MUDASHIR ABDULSALAM

ND/23/MAC/PT/0081

SUBMITTED TO DEPARTMENT OF MECHANICAL ENGINEERING, INSTITUTE OF TECHNOLOGY, KWARA STATE POLYTECHNIC, ILORIN

IN PARTIAL FULFILMENT OF THE REQUIREMENT FOR THE AWARD OF NATIONAL DIPLOMA (ND) IN MECHANICAL ENGINEERING

AUGUST, 2024

TABLE OF CONTENTS

WEEK ELEVEN AND WEEK TWELVE

Explanation on Low Fixed Shaft Issues

CHAPTER FOUR

Conclusion

Recommendation

Acknowledgement

References

DEDICATION

This report is dedicated to Almighty God for His divine mercy on me and my family who has given me the strength, wisdom, knowledge and understanding in working toward my success, I also dedicate this report to my parent and the family for their support and to my supervisor for the success of this report.

ACKNOWLEDGEMENT

To God who owns life, I wish to express my sincere appreciation and gratitude for serving me throughout my Siwes Report in Kwara State Polytechnic, and for making my vision come to reality, also for His Goodness, Mercy, Provision and Grace upon my life.

My profound gratitude goes to my sincere appreciation goes to my Dear Parent **Mr. & Mrs. Mudashir** my God be with you.

My special thanks goes to the head of Department and the Entire staff of Computer Science Department, Institute of Information Communication Technology, Kwara State Polytechnic, Ilorin for sharing wealth of Experience with me in my course of study.

Furthermore, thanks goes to my honorable and diligent supervisor for his advice, guidance and adequate encouragement relish from him which has contribute in no more small measure to the success of completion for this report.

Finally, my sincere gratitude also goes to my lovely friend both within and outside the institution.

ABSTRACT

This report gives a good account of the training and experience which exposed student during the Student Industrial Work Experience (SIWES) at all Technology Institute.

CHAPTER ONE

INTRODUCTION

The Student Industrial Work Experience Scheme (SIWES) is an integral part of academic training for students in various fields. This report outlines the activities conducted during a SIWES program focused on web development.

It is a program designed to expose students to practical work experiences related to their field of study. This report details the activities undertaken during a SIWES program focused on web development. The program spanned twelve weeks, with each phase dedicated to learning specific concepts and technologies related to Automobile.

Objectives of SIWES:

1. Skill Development: SIWES aims to provide students with practical exposure to real-world work environments, allowing them to develop industry-specific skills and competencies relevant to their field of study.
2. Industry Integration: The program seeks to foster collaboration between academic in situations and industries by facilitating student placements in various organizations, where they can apply theoretical knowledge to practical tasks and projects.
3. Professional Development: SIWES offers students the opportunity to gain insights into professional practices, work ethics, and workplace dynamics, thereby preparing them for future employment and career advancement.
4. Technology Transfer: Through engagement with industry professionals and exposure to state-of-the-art technologies, SIWES enables students to acquire knowledge of emerging trends and innovations in their respective fields.
5. Career Exploration: The program allows students to explore different career paths and industry sectors, helping them make informed decisions

about their future academic and professional pursuits.

Key Components of SIWES:

1. Industrial Attachment: Students are typically required to undergo a specified period of industrial attachment, ranging from three months to one year, depending on their academic program's requirements. During this period, students work under the supervision of industry mentors and engage in practical tasks relevant to their field of study.
2. Field Reports: Throughout the SIWES program, students are required to submit periodic field reports documenting their experiences, activities, and learning outcomes. These reports serve as a means of assessing students' progress and performance during their industrial attachment.
3. Seminar Presentations: Students may be required to deliver seminar presentations or project reports based on their SIWES experiences, highlighting key learning's, challenges encountered, and recommendations for future improvement.
4. Evaluation and Assessment: At the conclusion of the SIWES program, students are evaluated based on their performance during the industrial attachment, as well as the quality of their field reports and seminar presentations. Assessment criteria may include punctuality, professionalism, technical competence, and adherence to workplace protocols.

Benefits of SIWES:

1. Hands-on Experience: SIWES provides students with hands-on experience in real-world work environments, allowing them to apply theoretical knowledge to practical tasks and projects.
2. Industry Connections: The program enables students to establish valuable connections with industry professionals, potentially leading to

future employment opportunities and career networking.

3. Skill Enhancement: Through exposure to industry-specific skills and technologies, SIWES helps students develop competencies that are highly sought after by employers, enhancing their employability and career prospects.
4. Personal Growth: SIWES fosters personal and professional growth by challenging students to step out of their comfort zones, adapt to new environments, and acquire transferable skills such as communication, teamwork, and problem-solving.
5. Career Readiness: By gaining firsthand experience in the workplace, SIWES equips students with the confidence, resilience, and adaptability required thriving in their chosen career path sup on graduation.

In summary, the SIWES program plays a crucial role in preparing students for the demands of the modern workforce, fostering a culture of lifelong learning, and promoting industry-academia collaboration for mutual benefit. Through its emphasis on practical training, skill development, and professional exposure, SIWES serves as a cornerstone of experiential education in Nigeria's higher education system.

CHAPTER TWO

MAJOR ACTIVITIES OF LMD AUTOMOBILE COMPANY

LMD AUTOMOBILE COMPNAY, situated Zone D, Ajegunle, Ilorin, Kwara State, was founded to address specific technical needs in the center and its vicinity.

The organization engages in a variety of maior activities aimed at providing comprehensive office technology solutions. Here's a breakdown of each activity:

1. **Repairing of Automobile:** Automobile repair encompasses fixing and maintaining vehicles, including routine maintenance like oil changes and tire rotations, as well as addressing more complex issues like engine problems or body damage

2. **Car Rentals:**

- Providing vehicles for short-term use, such as vacations or business trips.
- Managing a fleet of vehicles and ensuring their availability.
- Providing customer service and handling rental agreements.

3. **Towing:**

- Providing roadside assistance for disabled vehicles.
- Transporting vehicles to repair shops or storage locations.
- Offering specialized towing services, such as heavy-duty towing.

4. **Car Washes:**

- Providing cleaning services for vehicles, both manually and automatically.
- Offering additional services, such as waxing and detailing.
- Maintaining a clean and safe environment for customers.

5. **Auto Electrical Services:**

- Installing, maintaining, and repairing electrical systems in vehicles.
- Diagnosing and fixing electrical problems, such as battery issues or wiring problems.
- Providing services for advanced technologies, such as electric vehicles.

6. **Supply Chain Management:**

- Managing the flow of materials, components, and finished vehicles from suppliers to customers.
- Optimizing logistics and inventory to ensure timely delivery and minimize costs.
- Building strong relationships with suppliers and customers.

CHAPTER THREE

Weeks1-2: Introduction to Block Engine and Automobile Engine and the Component

An Engine block, also referred to as a Cylindrical block, is a critical component in the design and construction of internal combustion engines. This robust piece of machinery serves as the foundation for an engine's key components, including the cylinders, pistons, and crankshaft. By housing these critical elements and providing a secure structure for their operation, the cylinder block plays a pivotal role in the functioning of various types of engines, from those found in automobiles to industrial machinery and even power generators. This article presents all the answers related to what is Cylinder block. This topic in mechanical engineering is important for your upcoming examinations like SSC JE ME and RRB JE Mechanical Engineering.

What is a Cylinder Block?

The cylinder block, commonly referred to as the engine block, serves as the heart of an engine, comprising one of its central components. Crafted from high-quality materials to fulfil the specific functions of its various elements, the Engine block plays a pivotal role in the lubrication system of IC Engine, temperature regulation, and overall stability. Consequently, its construction demands top-tier materials to avert any potential shortcomings.

Engine blocks are meticulously engineered to endure a wide range of temperatures and mechanical stresses, ensuring the engine's longevity and efficient lubrication. Within these blocks, numerous oil galleries facilitate the essential oil circulation throughout the engine. Additionally, water galleries are strategically incorporated to manage engine temperature and maintain optimal operational conditions.

Weeks3-4: Gasket

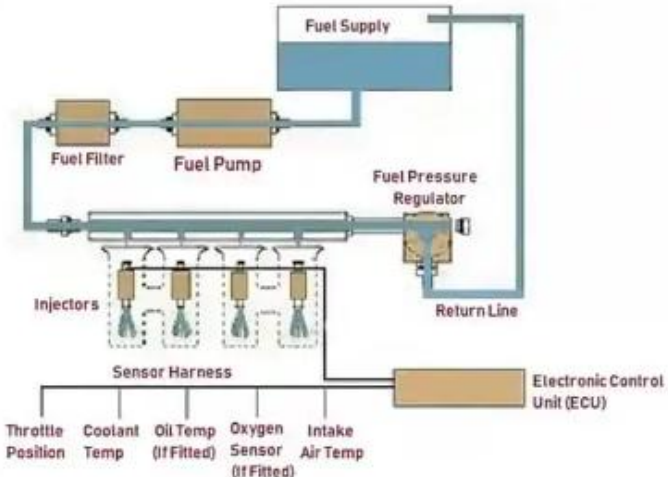
a flat piece of soft material or rubber that is put between two joined metal surfaces to prevent gas, oil, or steam from escaping:

A blow a gasket *The gasket has blown (= allowed gas, oil, or steam to escape).*

Weeks5-6: Cylinder Head Gasket

Weeks7-8: Electronic Control Gasoline

Electronic control of gasoline refers to systems like Electronic Fuel Injection (EFI) that use an Engine Control Unit (ECU) to precisely manage fuel delivery, ignition timing, and other engine functions for optimized performance and efficiency



Weeks9-10: TRUST LUBE FLUID

Weeks11-12: EXPLANATION ON LOW FIXED SHAFT ISSUES

Shaft misalignment happens when two rotating shafts are not parallel to one another, or are parallel but offset in different planes. This kind of machinery misalignment is extremely common in rotating equipment and is often the root cause of failure.

The good news is that today's shaft alignment tools make it faster and easier to identify misalignment in motors, pumps, blowers, and fans. Once shaft misalignment is diagnosed, these same shaft alignment tools also make it easier than ever to fix the problem and complete a precise machinery alignment.

CHAPTER FOUR

Conclusion:

The SIWES program provide us with a comprehensive learning experience in Files, Register, Incoming Registration, Outgoing Registration, Voucher Salary, Excel Etc. Through a combination of theoretical knowledge and hands-on practice, We acquired the skills and confidence to tackle real-world web development challenges. The program's structured curriculum, hands-on projects, and expert guidance fostered a conducive learning environment, empowering participants to embark on successful careers in web development.

Recommendations:

Based on the experiences gained during the SIWES program, it is recommended to incorporate more real-world projects and industry-relevant tasks into future training modules. Additionally, providing opportunities for collaboration and mentorship with experienced professionals can further enrich students' learning experiences and facilitate their transition into the workforce.

Acknowledgments:

We extend our gratitude to the organizers, instructors, and industry partners who facilitated the SIWES program and contributed to the success of the learning experience.

References:

Any textbooks, online resources, or materials used during the SIWES program should be referenced accordingly.

This technical report serves to document the activities, learning outcomes, and recommendations derived from the software development SIWES program, providing insights in to the practical aspects of training in the field of software development.