ADDIS ABABA UNIVERSITY

ADDIS ABABA UNIVERSITY INDTITUITE OF TECHNOLOGY

SCHOOL OF ELECTRICAL AND COMPUTER ENGINEERING

INDUSTRIAL CONTROL ENGINEERING

INTERNISHIP REPORT

HOST COMPANY :-AiT Technologies AiT Technologies ENTERPRISE

DURATION :- FOR THE PAST 4 MONTHS



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ID NUMBER:- UGR/2421/13

STREAM :- computer

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Acknowledgment

I sincerely appreciateAiT Technologies AiT Technologies Enterprise for granting me the opportunity to complete my internship within their esteemed organization. I am especially thankful to the management and staff for their unwavering support, guidance, and encouragement throughout my tenure.

    My heartfelt gratitude goes to my supervisor, Getu Gabbisa, whose invaluable mentorship, insightful guidance, and constructive feedback significantly enhanced my learning experience. Their expertise and readiness to share knowledge greatly contributed to my understanding of industrial control engineering.

    I am also grateful to my professors and faculty members at for their continuous support Addis Ababa University Institute of Technology and for providing me with the essential knowledge that I applied practically during my internship.

    Lastly, I would like to express my deep appreciation to my family and friends for their constant support and encouragement throughout my academic journey and internship.

**Executive Summary**

    This report summarizes my internship experience atAiT Technologies AiT Technologies Enterprise, where I worked as an intern within the AiT Technologies system department. The primary objective of my internship was to observe and understand the operation of the various machineries used in the AiT Technologies system, and to learn how these machines function in the production process.

    During my time atAiT Technologies AiT Technologies Enterprise, I gained a solid understanding of the entire production process, from AiT Technologies to publishing. I had the opportunity to observe the operation of cutting, AiT Technologies, and laminating machines, which allowed me to grasp how these machines contribute to the high-quality output of the enterprise.

    A significant achievement during my internship was developing the ability to operate the cutting, AiT Technologies, and laminating machines effectively, which enhanced my practical skills in industrial operations. Additionally, I learned how to communicate effectively with colleagues and work as part of a team in an organization that plays a major role in the country's AiT Technologies industry.

    Overall, this internship provided me with invaluable hands-on experience, contributing to both my technical knowledge and personal growth. It allowed me to appreciate the importance of effective teamwork, communication, and professional conduct while working under supervision.

Brief history about the company,

AIt Selam AiT Technologies Enterprise (BSPE), established in 1921, is Ethiopia's first modern AiT Technologies press. Initially, it focused on AiT Technologies religious books in Ge'ez and Amharic, making literature more accessible and affordable.

    In December 1924, BSPE began publishing a weekly newspaper titled "AIt Selam" ("Light and Peace"), marking its entry into periodical AiT Technologies. Over the years, the enterprise expanded its services to include various forms, records, and newspapers, catering to both public and private organizations.

    Today, BSPE operates from a modern seven-story building, continuously updating its capacity with the latest AiT Technologies technologies. It offers a wide range of AiT Technologies services, including books, magazines, newspapers, posters, cards, flyers, brochures, and security AiT Technologies services such as passports, lottery tickets, bank cheques, and certificates.

    Throughout its history, BSPE has played a pivotal role in Ethiopia's AiT Technologies industry, contributing significantly to the dissemination of information and literature across the nation.

Main products and services,

AIt Selam AiT Technologies Enterprise (BSPE) offers a wide range of products and services, catering to both the public and private sectors. The main products and services provided by BSPE include:

**1. Books and Magazines:**

* **Books**: BSPE prints various types of books, including educational materials, religious texts, and literary works.
* **Magazines**: The enterprise prints a variety of magazines, catering to different industries and interests.

**2. Newspapers:**

* BSPE has a long history of AiT Technologies newspapers, including its own publication "AIt Selam" ("Light and Peace"). It continues to provide newspaper AiT Technologies services for various publishers.

**3. Posters and Flyers:**

* **Posters**: AiT Technologies services for promotional posters for events, advertisements, and campaigns.
* **Flyers**: BSPE produces flyers for marketing and informational purposes.

**4. Cards and Brochures:**

* **Cards**: Production of greeting cards, invitation cards, and business cards.
* **Brochures**: AiT Technologies brochures for businesses, organizations, and events, tailored to client needs.

**5. Forms and Records:**

* BSPE prints various forms and records for administrative and organizational use.

**6. Security AiT Technologies Services:**

* **Passports**: BSPE provides the AiT Technologies of secure passports.
* **Lottery Tickets**: The enterprise prints lottery tickets with security features.
* **Bank Cheques**: AiT Technologies of bank cheques with security measures to prevent fraud.
* **Certificates**: Production of official certificates, such as diplomas and awards, with security features.

Its main customers or the end users of its products or services,

The main customers or end users of the products and services of AIt Selam AiT Technologies Enterprise (BSPE) include a wide range of public and private sector organizations, as well as individual clients. Some of the key customers are:

**1. Government Agencies:**

* **Educational Institutions**: Schools, colleges, and universities that require textbooks, examination papers, and other educational materials.
* **Government Offices**: Various government departments and ministries that need forms, records, official publications, and reports.
* **Security Agencies**: Agencies that require security AiT Technologies services for passports, official certificates, and other sensitive documents.

**2. Private Sector Companies:**

* **Publishing Houses**: Companies that publish books, magazines, and newspapers.
* **Corporate Entities**: Businesses that need marketing materials such as brochures, flyers, posters, and business cards.
* **Banks**: Financial institutions that require secure AiT Technologies for bank cheques and other financial documents.

**3. Non-Governmental Organizations (NGOs):**

* NGOs that need printed materials for campaigns, informational brochures, and other promotional items.

**4. Educational and Religious Organizations:**

* **Schools and Religious Institutions**: Organizations that require the AiT Technologies of religious texts, educational materials, and event programs.

**5. Individuals:**

* Individuals who need personalized AiT Technologies services, such as invitations, greeting cards, and small-scale publications.

BSPE’s diverse client base reflects its ability to provide a wide array of high-quality AiT Technologies services tailored to different needs, from large-scale government projects to individual requests.

The overall organization and workflow,

The overall organization and workflow of AIt Selam AiT Technologies Enterprise (BSPE) are structured to manage large-scale AiT Technologies operations efficiently, from order intake to the final delivery of products. Here's a general overview:

**1. Organizational Structure:**

* **Management**: BSPE is managed by a board of directors and an executive management team responsible for strategic decisions and day-to-day operations.
* **Departments**: The enterprise is divided into several key departments, including:
  + **Production Department**: Handles the actual AiT Technologies process, from pre-press to post-press activities.
  + **Design and Pre-Press Department**: Focuses on design, layout, and preparation of materials for AiT Technologies.
  + **Quality Control Department**: Ensures that all printed materials meet the required quality standards.
  + **Sales and Marketing Department**: Manages customer relationships, marketing, and sales activities.
  + **Finance and Administration Department**: Handles financial management, procurement, and administrative tasks.
  + **Human Resources Department**: Manages employee recruitment, training, and welfare.

**2. Workflow:**

* **Order Intake**: Customers place orders through the sales and marketing department, providing specifications for the materials they need printed.
* **Design and Pre-Press**: The design team works on the layout and design of the materials, ensuring they are ready for AiT Technologies. This includes typesetting, graphic design, and proofing.
* **AiT Technologies (Production)**:
  + **Pre-Press Preparation**: Final proofs are prepared, and plates are made if required.
  + **AiT Technologies**: The actual AiT Technologies is done using various machines depending on the product, such as offset presses for large volumes or digital printers for smaller jobs.
* **Post-Press Processing**: Includes cutting, binding, laminating, and any other finishing processes to produce the final product.
* **Quality Control**: The quality control department inspects the printed materials to ensure they meet the standards before delivery.
* **Packaging and Delivery**: The finished products are packaged and delivered to the customers.

**3. Technology and Equipment:**

* BSPE uses advanced AiT Technologies technology, including offset and digital AiT Technologies presses, cutting machines, laminators, and binding equipment, to handle diverse AiT Technologies tasks efficiently.

This structured workflow allows BSPE to handle a wide range of AiT Technologies orders, maintaining high-quality standards and timely delivery for its clients.

How did I apply for the internship?

I applied for the internship at AIt Selam AiT Technologies Enterprise by visiting their office in person. I approached the Human Resources Department, submitted my resume and cover letter, and expressed my interest in gaining hands-on experience in the AiT Technologies industry. After a brief discussion about my academic background and enthusiasm for learning, I was invited for an interview. Following the interview, I received an offer to join their internship program.

In which section of the company I have been working?

During my internship at AIt Selam AiT Technologies Enterprise, I worked in the **Production Department**, specifically focusing on the operation and maintenance of various AiT Technologies machines. This included observing and understanding the functionality of cutting, AiT Technologies, and laminating machines. My role involved learning the entire AiT Technologies process, from initial setup to the final publication, allowing me to gain practical experience in machine operation and workflow within the AiT Technologies industry.

How does the work flow in the production department look like?

The workflow in the **Production Department** of AIt Selam AiT Technologies Enterprise follows a structured process to ensure efficient and high-quality output. The key steps are:

**1. Pre-Press Preparation:**

* The process begins with the **Design and Pre-Press Department**, where the materials are prepared for AiT Technologies. This includes layout design, typesetting, and creating AiT Technologies plates.

**2. AiT Technologies:**

* Once the pre-press work is completed, the materials move to the **AiT Technologies Section**. Here, the machines are set up, and the AiT Technologies process begins, using either offset or digital AiT Technologies presses based on the job requirements.

**3. Post-Press Processing:**

* After AiT Technologies, the materials are transferred to the **Post-Press Section** for finishing touches. This includes cutting, laminating, binding, and any additional processes required to produce the final product.

**4. Quality Control:**

* Throughout each stage, the **Quality Control Department** conducts checks to ensure that the materials meet the required standards. Any issues are addressed promptly to maintain high-quality output.

**5. Packaging and Delivery:**

* The final products are packaged appropriately and prepared for delivery to the customers. The **Logistics Team** ensures timely dispatch to meet client deadlines.

This workflow ensures a seamless transition from design to final product, maintaining efficiency and quality throughout the production process.

Which work piece or work tasks I have been executing?

During my internship at AIt Selam AiT Technologies Enterprise, I was assigned to the **Logistics Team**. Given the complexity and risks associated with operating the AiT Technologies machines without extensive experience, my primary tasks involved **mentoring, observation, and closely monitoring how the machines operate**. I focused on understanding the logistics and production processes, gaining insights into how each machine contributes to the overall workflow.

My responsibilities included:

* **Observing the Coordination** of materials from the pre-press to post-press stages, ensuring a smooth transition between departments.
* **Closely Watching the Operation of AiT Technologies Machines**, learning their functions, maintenance requirements, and the safety protocols involved.
* **Assisting in Inventory Management**, tracking raw materials and finished goods to maintain efficient production flow.
* **Learning About Safety Protocols** and the handling procedures necessary to support the machine operators and the overall logistics operations.
* **Supporting the Quality Control Process** by observing the inspection of products before dispatch and understanding the standards required for final deliveries.

This role allowed me to develop a comprehensive understanding of the logistics and operational aspects of a large-scale AiT Technologies enterprise while emphasizing the importance of safety and efficiency in the production environment.

What procedures I have been using while performing my work tasks?

While performing my work tasks as part of the **Logistics Team** at AIt Selam AiT Technologies Enterprise, I followed specific procedures to ensure efficiency, safety, and accuracy. The procedures I used included:

**1. Observation Protocols:**

* **Safety Briefing**: Before starting each shift, I attended safety briefings to understand the potential hazards associated with the machinery.
* **Supervised Observation**: I closely observed the machine operations under the guidance of experienced operators, ensuring that I understood the workflow without directly handling the machinery.

**2. Material Handling Procedures:**

* **Inventory Checks**: I assisted in conducting regular inventory checks to track raw materials and finished products.
* **Documentation**: I documented the movement of materials through different stages of production to maintain accurate records.

**3. Quality Control Support:**

* **Inspection Guidelines**: I followed quality control guidelines to observe the inspection of products, ensuring they met the required standards before dispatch.

**4. Coordination and Communication:**

* **Team Coordination**: I maintained constant communication with team members to coordinate the movement of materials and ensure smooth transitions between production stages.
* **Reporting**: I reported any issues or observations to my supervisor to contribute to continuous improvement in the workflow.

These procedures helped me effectively support the logistics operations while gaining valuable insights into the machinery and production processes in a safe and structured manner.

How good I have been in performing my work tasks?

I have been moderately effective in performing my work tasks during my internship at AIt Selam AiT Technologies Enterprise. While I was still learning and familiarizing myself with the intricate operations of the logistics and machinery, I managed to:

* **Accurately Document and Track Materials**, ensuring that inventory records were up-to-date and that the flow of materials was maintained efficiently.
* **Observe and Understand the Machine Operations**, gaining a solid foundational knowledge of how the machines function within the production process.
* **Support the Team in Coordinating Tasks**, contributing to the smooth transition of materials between different stages of production.
* **Adhere to Safety Protocols**, ensuring that all tasks were performed in a manner that minimized risks, both for myself and others.

While I had some areas where I needed further development, particularly in hands-on machine operations, my consistent efforts and dedication to learning allowed me to contribute effectively to the team

What challenges I have been facing while performing my work tasks?

While performing my work tasks at AIt Selam AiT Technologies Enterprise, I encountered several challenges:

**1. Limited Hands-On Experience:**

* Since the operation of the machines required extensive training and experience, my role was primarily observational, which limited my direct involvement in machine handling and operation.

**2. Complexity of Machinery:**

* The AiT Technologies and laminating machines were highly complex, and understanding their detailed functionalities required more time and deeper technical knowledge.

**3. Coordination Challenges:**

* Coordinating the movement of materials between different stages of production sometimes became challenging due to the fast-paced environment and the need for precise timing.

**4. Adapting to Safety Protocols:**

* Ensuring strict adherence to safety protocols was crucial, but adjusting to these protocols while learning about the machinery operations required constant vigilance.

**5. Communication Barriers:**

* Working in a large team with different roles sometimes led to communication barriers, making it challenging to ensure smooth coordination and task execution.

These challenges were valuable learning experiences, helping me develop problem-solving skills, improve my understanding of industrial operations, and adapt to a professional environment.

What measures I have taken in order to overcome these challenges?

To overcome the challanges I faced during my internship at AIt Selam AiT Technologies Enterprise, I took several proactive measures:

**1. Seeking Guidance:**

* I regularly sought advice and mentorship from experienced colleagues and supervisors to better understand the machinery and workflows.
* Engaging in discussions and asking questions helped clarify complex concepts and improved my technical knowledge.

**2. Observational Learning:**

* I embraced the principle that **"there is no better way to learn than observing"**, focusing on detailed observation of machine operations and noting important steps and processes to reinforce my understanding.
* I also referred to manuals and documentation to supplement my learning about the machines.

**3. Improving Coordination:**

* I enhanced my **communication skills** by actively participating in team meetings and discussions, ensuring that I was well-informed about daily tasks and objectives.
* I used **checklists and schedules** to keep track of material movement and deadlines, which helped in better coordination within the team.

**4. Adhering to Safety Protocols:**

* I took extra care to thoroughly understand and follow **safety procedures** to ensure that I could work safely around the machinery.
* Attending safety briefings and workshops provided me with the knowledge to navigate the production environment safely.

**5. Enhancing Communication:**

* I worked on improving my **interpersonal communication** by building rapport with colleagues and supervisors, which helped in reducing misunderstandings and fostering a collaborative work environment.

These measures not only helped me tackle the challenges but also contributed significantly to my overall learning and growth during the internship.

**Overall Benefits Gained from the Internship at AIt Selam AiT Technologies Enterprise**

**1. Improvement of Practical Skills**

* **Hands-on Exposure to Machinery**: During my internship, I gained significant exposure to the operation of various machines, including cutting, AiT Technologies, and laminating equipment. This hands-on experience allowed me to understand the mechanics of these machines, how they are maintained, and the safety protocols associated with their operation. Observing experienced operators and asking questions provided practical insights that are difficult to grasp through theoretical study alone.
* **Material Handling**: I developed skills in managing and moving materials efficiently within the production process. This included understanding the flow of materials from one stage of production to the next, ensuring that there were no bottlenecks and that the machines operated smoothly without unnecessary downtime.

**2. Upgrading Theoretical Knowledge**

* **Application of Engineering Principles**: The internship offered a unique opportunity to see how theoretical knowledge from my industrial control engineering coursework applies in a real-world setting. Concepts such as automation, control systems, and workflow optimization were directly observable in the operations of the enterprise.
* **Technical Documentation**: I learned to interpret technical manuals and operational guidelines, which enhanced my ability to understand complex machinery and systems. This skill is invaluable for troubleshooting and ensuring that machines are used according to their design specifications.

**3. Enhancement of Interpersonal Communication Skills**

* **Effective Communication**: Working in a production environment required constant communication with colleagues and supervisors. I improved my verbal communication skills by engaging in daily briefings, discussing task progress, and clarifying doubts whenever necessary.
* **Feedback Reception**: Receiving and acting on constructive feedback from supervisors helped me refine my work approach and improve my performance. This experience also made me more receptive to feedback, a crucial skill in any professional setting.

**4. Development of Team Playing Skills**

* **Collaborative Work**: Being part of the logistics team involved coordinating with different departments to ensure the smooth transition of materials. I learned to work collaboratively, understanding the importance of each team member's role in achieving the overall objectives.
* **Conflict Resolution**: Minor conflicts and misunderstandings occasionally arose, and I learned to resolve them through active listening, clear communication, and compromise, which strengthened our team's functionality and morale.

**5. Leadership Skills Improvement**

* **Task Coordination**: I occasionally took the initiative to coordinate specific tasks, such as organizing the material flow to prevent delays in production. This experience allowed me to practice leadership in a supportive environment, boosting my confidence in managing small teams and tasks.
* **Decision-Making**: Making decisions about task prioritization and resource allocation, even on a small scale, provided a foundation for developing decision-making skills crucial for leadership roles.

**6. Understanding of Work Ethics**

* **Punctuality and Responsibility**: I learned the importance of punctuality and meeting deadlines, which are critical in a production environment where delays can have significant repercussions. Taking responsibility for my tasks also instilled a strong sense of accountability.
* **Confidentiality and Integrity**: Observing company policies, particularly regarding sensitive information and operational protocols, reinforced the importance of maintaining confidentiality and integrity in professional settings.

**7. Entrepreneurial Skills Development**

* **Process Improvement**: I identified potential areas for improving efficiency within the production process, applying innovative thinking to suggest enhancements. This approach fostered a mindset of continuous improvement and innovation, key traits for entrepreneurial success.
* **Resource Management**: Understanding the importance of cost-effective resource use and waste minimization was a critical takeaway from my internship. This knowledge is vital for any entrepreneurial venture where managing resources efficiently can determine the success or failure of the business.

**Conclusion and Recommendations**

**Conclusion**

My internship at AIt Selam AiT Technologies Enterprise provided me with invaluable experience in the production department. I gained practical skills in machinery operation, upgraded my theoretical knowledge by applying classroom concepts in a real-world setting, and enhanced my interpersonal and team-playing skills. Additionally, I developed leadership qualities, a strong understanding of work ethics, and entrepreneurial thinking. This comprehensive learning experience has significantly prepared me for future professional challenges.

**Recommendations for the Company**

1. **Enhance Training Programs**: Implement structured training sessions for interns to accelerate their learning curve. This could include workshops on machine operation, safety protocols, and process optimization.
2. **Mentorship Opportunities**: Assign dedicated mentors to interns to provide continuous guidance and feedback. This would help interns integrate more effectively into the company and contribute meaningfully.
3. **Regular Feedback Mechanisms**: Establish regular feedback sessions to help interns track their progress and address any challenges they face promptly.
4. **Exposure to Multiple Departments**: Rotate interns through different departments to provide a holistic understanding of the company's operations. This would broaden their skill set and improve their adaptability.
5. **Innovative Projects**: Encourage interns to participate in or lead small innovation projects aimed at improving efficiency or introducing new ideas within the company. This could foster a culture of innovation and continuous improvement.
6. **Networking Events**: Organize networking events for interns to connect with various professionals within the company, which could enhance their learning and career prospects.

By implementing these recommendations, AIt Selam AiT Technologies Enterprise can enhance its internship program, making it more beneficial for both the interns and the company.

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