

# **INDUSTRIAL TRAINING FINAL REPORT**

## PERUNDING ALIF BERSATU SDN BHD

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## CHAPTER 1 INTRODUCTION

#### **1.1 Company Profile**

Perunding Alif Bersatu Sdn. Bhd., established on July 3, 2003, is a leading engineering consultancy firm based in Shah Alam, Selangor, Malaysia. Specializing in Mechanical and Electrical Engineering as well as Project Management Consultancy, the company has built a strong reputation for providing innovative and high-quality solutions to both private and public sector clients. With over two decades of experience, the firm has successfully delivered projects in various industries, including residential, commercial, industrial, and infrastructure developments, ensuring adherence to local and international standards.

The company is driven by a dedicated team of professionals, including six skilled engineers, one accountant, one administrative staff, and five CAD operators. This talented team works collaboratively to provide tailored engineering designs and project management services that focus on sustainability, efficiency, and costeffectiveness. Perunding Alif Bersatu Sdn. Bhd. prides itself on its ability to offer cutting-edge solutions, whether in the design of mechanical and electrical systems or in overseeing the execution of complex projects from start to finish, ensuring they are completed on time and within budget.

At Perunding Alif Bersatu, sustainability is a core principle, with a focus on integrating energy-efficient technologies and green solutions into all projects. This commitment, combined with the company's extensive expertise in project management, allows them to manage the entire project lifecycle effectively. Their ability to deliver high-quality, environmentally responsible designs has earned them a trusted reputation among clients. With a proven track record and a client-centric approach, Perunding Alif Bersatu Sdn. Bhd. continues to be a leader in the engineering consultancy industry, committed to excellence and innovation in every project they undertake.

1.1.1 Objective and Scope of Perunding Alif Bersatu Sdn. Bhd.

#### **Objective:**

The objective of Perunding Alif Bersatu Sdn. Bhd. is to provide innovative, highquality, and sustainable engineering solutions in the fields of Mechanical and Electrical Engineering, as well as Project Management Consultancy. We aim to deliver cost-effective, reliable, and tailored solutions that meet the specific needs of our clients while adhering to industry standards, local regulations, and environmental sustainability. Through continuous improvement, technical excellence, and a clientfocused approach, we strive to be a leading firm recognized for our professionalism, dedication, and ability to manage and complete projects successfully.

#### Scope:

The scope of services offered by Perunding Alif Bersatu Sdn. Bhd. includes a wide range of consultancy and engineering services, with a strong focus on Mechanical and Electrical Engineering and Project Management. Our expertise encompasses:

#### 1. Mechanical and Electrical Engineering:

- Design and implementation of mechanical and electrical systems for buildings and infrastructure projects.
- HVAC (Heating, Ventilation, and Air Conditioning) system design.
- Plumbing, fire protection, and other utility systems.
- Electrical power distribution, lighting design, and building wiring.
- Integration of renewable energy solutions for energy efficiency.

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2. Project Management Consultancy:
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- Project planning, scheduling, and cost estimation.
- Feasibility studies and risk assessments.
- Coordination between clients, contractors, and other stakeholders.
- Quality control, monitoring, and evaluation throughout the project lifecycle.
- Managing and ensuring compliance with safety standards, regulations, and sustainability requirements.

### **CHAPTER 2**

### **JOB RESPONSIBILITIES**

#### 2.1 Task Execution

- 2.1.1 Extra Low Voltage (ELV) Layout Design
- 2.1.1.1 Work Procedure & Flowchart:

The ELV layout design for the masjid encompasses the schematic design and installation details of various components essential for the functioning of the system. Below is a step-by-step breakdown of the procedure:

1. Info Link System Schematic Diagram:



Figure 1. 1: Info Link System Schematic Diagram

- Devices: This includes components such as laptops, high-quality video data converters, HDMI cables, and LCD screen monitors.
- System Design: The schematic layout connects all devices to form a network. The system is designed to enable high-speed data transmission via fiber optic converters, HDMI cables, and 6 LCD monitors, each equipped with AC 230V (13A) sockets for power.
- Cable Layout: Proper cable routing is done to ensure there are no signal losses or interference. The system's power and data flows are routed to designated service boxes and sockets.