# **MUHAMMAD SHAMIM BIN SULAIMAN**

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Process Engineer with 2 years of experience in semiconductor manufacturing, specializing in process optimization, reliability, and documentation. Currently undergoing SIEMENS PLC with Manufacturing Industry course at Pahang Skills Development Centre (PSDC), which includes PLC programming (LAD, STL, FBD), Siemens TIA Portal, HMI integration, electrical motor control, industrial IoT, and Festo FluidSIM Pneumatic simulation. Strong focus on advancing expertise in automation and control systems for industrial applications.

### WORK EXPERIENCE

#### UNISEM ADVANCED TECHNOLOGIES – Simpang Pulai, Perak

#### Process Engineer

July 2022 – July 2024

- Successfully transitioned the first 300mm wafer engineering lot to production, streamlining processes and enabling full-scale manufacturing, which resulted in a 10% increase in production capacity.
- Led wafer bumping operations for 300mm wafers, focusing on coating, exposure, and develop processes, resulting in a reduced cycle time by 10%.
- Enhanced process efficiency by optimizing coat, exposure, and develop parameters through Design of Experiments (DOE), and continuously updating Standard Operating Procedures (SOP), Out-of-Control Action Plans (OCAP), and Statistical Process Control (SPC) charts, leading to a 20% improvement in process accuracy.
- Utilized Root Cause Analysis (RCA) techniques, such as 5 Why and Fishbone Diagrams, to investigate and resolve process issues, reducing downtime by 25% and ensuring consistently high-quality output.
- Spearheaded the integration of industry best practices, resulting in increased team efficiency and was recognized as a Finalist in the Technical Excellence Competition.
- Conducted detailed engineering calculations using Analysis of Variance (ANOVA) to optimize process parameters, resulting in a 10% improvement in production consistency.
- Applied Process Failure Modes and Effects Analysis (PFMEA) and other quality methodologies (FMEA, VDA 6.3, ISO 9001/14001), ensuring process reliability and achieving zero non-conformance in final audits.

## KEJURUTERAAN ELEKTRIK PROTON – Cheras, Kuala Lumpur

#### Process Engineer Intern

- Designed AutoCAD SLD drawings for 45 switchboards and assembled/wired 70 switchboards, ensuring compliance with standards and operational functionality.
- Improved workflow by integrating DocFetcher, increasing productivity by 40%.
- Supervised mass production of 33 distribution boards, ensuring client specifications and quality standards.

## EDUCATION

PAHANG SKILLS DEVELOPMENT CENTRE – Kuantan, Pahang

SIEMENS PLC with Manufacturing Industry

UNIVERSITI TEKNOLOGI MARA – Shah Alam, Selangor Bachelor of Engineering (Hons) Chemical; Second Class (Upper)

July 2019 – September 2019

October 2024

January 2021

#### AWARDS AND CERTIFICATIONS

AWARDS: Unisem Technical Excellence Finalist Award (2023), Best 3D Plant Layout Award (2020),

**CERTIFICATIONS:** SIMATIC S7 Programming 1 in the TIA Portal (TIA-PRO1) (2024), Introduction to Sustainable Development & ESG by SHRDC (2024), VDA 6.3 Process Audit Methodology by Philip MS Training & Consultancy (2023), Graduate Engineer by BEM (2021)

## SKILLS

**DATA ANALYSIS:** Advanced in Design of Experiment (DOE), Statistical Process Control (SPC), Root Cause Analysis (RCA), Process Failure Modes and Effects Analysis (PFMEA), Analysis of Variance (ANOVA), Six Sigma

**PROCESS DESIGN:** Intermediate in Process Flow Diagram (PFD), Piping and Instrumentation Diagram (P&ID), Heat and Material Balance (HMB), Electrical Single Line Diagram (SLD), EPLAN, AutoCAD

**AUTOMATION SYSTEM:** Intermediate in Siemens S-1500, Emerson Delta-V, Foxboro, Siemens TIA Portal (PLC programming, HMI integration, troubleshooting), DCS/SCADA systems, Festo FluidSIM Pneumatic, Electrical Motor Control Systems (installation, commissioning)

**SOFTWARE & PROGRAMMING:** Beginner in Aspen HYSYS, MATLAB, Visual Basic for Application (VBA), C#, Node-Red programming for IoT integration

LANGUAGES: Malay (Native), English (Full Professional Proficiency)

#### REFERENCES

NAME: Mohd Adhan Safarin Bin Kamaruddin

**POSITION:** Assistant Director of Special Program Unit

**COMPANY:** Pahang Skills Development Centre

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NAME: SY See Thoh

**POSITION:** Process Manager

**COMPANY:** Unisem Advanced Technologies

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