

MOHAMMAD SAIFUDDIN BIN SANUSI

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Result oriented and multilingual research engineer specializing in data analysis with a background in hydrogen fuel cell technology, customer service, mechatronics, polymer extrusion, green energy, sales, and management.

WORK EXPERIENCE

Testing & Research Engineer | Sydrgoen Energy Pte Ltd

June 2023 – Present

- Performing 500 hours durability, DFM, RA, FMEA, performance, and environmental testing on hydrogen fuel cells and PEM electrolyzer prototype.
- Leading Gas Chromatography sample testing, creating protocols that **improved data accuracy by 20%**.
- Scaling and transitioning products from **New Product Introduction to High Volume Production**.
- Formulating the catalyst formulation based on the cost and performance analysis.
- Managing projects including product sampling and leveraging 3D printing technology for rapid prototyping.
- Supporting **CE certification** of first hydrogen fuel cell product through testing and assembly collaboration with China team.

Process Engineer | Powerzone H2 Technologies Pte Ltd

Sept 2022 – June 2023

- Developed SOPs, BOMs, and managed the product development including design, manufacturing, and final packaging.
- Established relationships with over 45 suppliers and handled inquiries from potential customers.
- Enhanced product visibility by **increasing booth traffic by 30%** through marketing strategies.

Associate Engineer | Kulicke & Soffa Pte Ltd

June 2021 – Sept 2022

- Troubleshoot and resolved complex mechanical, electrical, and process issues during equipment assembly and testing phases.
- Assembled and tested **2 wire bond machines** in under 4 hours, adhering to standard work instructions.
- Acted as a technical mentor, leading diagnostic processes on testing and calibration for machine components.

EDUCATION

UNIVERSITY OF MASSACHUSETTS AMHERST, USA | 2020

Bachelor of Science in Chemical Engineering

SKILLS

| LANGUAGE | SOFTWARE | MACHINERY |
|------------|--------------------|---|
| • Malay | • Microsoft Office | • Polymer Extruder Machine |
| • English | • MATLAB | • Tensile Testing Machine |
| • Thai | • C++ | • Eye Tracking Device |
| • Mandarin | • Aspen | • 3D Resin Printing |
| | • SQL | • AutoCAD |
| | | • Rheometer |
| | | • UV-Vis |
| | | • Wire Bond Process Analytical |
| | | • Gas Chromatography (GC) |
| | | • High Performance Liquid Chromatography (HPLC) |
| | | • Digital Scanning Calorimeter (DSC) |