

# MOHAMMAD SAIFUDDIN BIN SANUSI

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Analytic • Testing • Research • Green Energy

Result-oriented and multilingual research engineer specializing in **hydrogen fuel cell** technology, with a background in customer service, semi-conductor, polymer extrusion, green energy, sales, and management.

## WORK EXPERIENCE

### TESTING & RESEARCH ENGINEER

06/ 2023 – PRESENT

SYDROGEN ENERGY PTE LTD | AYER RAJAH, SG

- Leading Gas Chromatography sample testing, creating protocols that **improved data accuracy by 20%**.
- Conducting and analyzing 500-hour durability tests on hydrogen fuel cells, using predictive analytics to forecast initial product performance, resulting in a **15% improvement in product reliability**.
- Formulating the catalyst formulation based on the cost and performance analysis.
- Managing projects including product sampling and leveraging 3D printing technology for rapid prototyping.
- Played a key role in New Product Introduction (NPI), coordinating design validation, testing, and scaling processes to transition products from prototype to high-volume production.

### PROCESS ENGINEER (hydrogen fuel cell startup company)

09/ 2022 – 06/2023

POWERZONE H2 TECHNOLOGIES PTE LTD | KALLANG, SG

- Developed SOPs, BOMs, and managed the product development - 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

06/ 2021 – 09 / 2022

KULICKE & SOFFA | SERANGOON, SG

- 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 and meeting production targets.
- Acted as a technical mentor, leading diagnostic processes on testing and calibration for machine components.

## PROJECT

### Polymer Extrusion

- Conducted tooling and material evaluations, optimizing die (ribbon and circular die) characteristics for ABS and polyethylene resin.
- Identified viscosity and shear rates to improve product quality.
- Successfully **reduced the cost of the raw material up to 35%** from the recycling of the polymers with quality maintenance.

## EDUCATION

### UNIVERSITY OF MASSACHUSETTS AMHERST, USA

- BACHELOR OF SCIENCE IN CHEMICAL ENGINEERING

## SKILL SET

- **LANGUAGE** – Malay, English Thai, Mandarin
- **SOFTWARE** – Microsoft Office, SQL, Tableau, MATLAB, C++, Aspen, BORIS, Agile, AutoCAD

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• **Expected Salary:**\$5,500 - \$ 6,500

• **Notice:** 1 Month of notice

• Refer to Github for more data analytic projects ( <https://github.com/Saifsan97>)