

MUHAMMAD SHADIQ BIN MOHAMMAD SHAHRIL

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Location: Johor, Malaysia

CAREER OBJECTIVE

Mechanical Engineering diploma Student specializing in Petrochemicals, with hands-on experience in machining, welding, mechanical fabrication, engine assembly and maintenance. Equipped with technical and problem-solving skills, seeking an entry-level position or internship in mechanical maintenance, manufacturing or petrochemical operations.

EDUCATION

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| <ul style="list-style-type: none">Diploma in Mechanical Engineering (Petrochemical)
Institution: Politeknik Tun Syed Nasir Syed Ismail
Graduation: July 2027
CGPA: 3.59 | <ul style="list-style-type: none">Sijil Pelajaran Malaysia (SPM)
SM Teknik Johor Bahru
Year 2019 - 2023
Mechanical Engineering Course. |
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FINAL YEAR PROJECT

Thermodynamic Learning Tool & Custom HHO Injection System.

- Designed and fabricated a physical thermodynamic test bench powered by a 4-stroke 6.5 hp gasoline engine.
 - Custom-built an HHO (Hydrogen-Oxygen) dry cell generator utilizing SS 316L stainless steel plates and an integrated gas-liquid separation system.
 - Programmed an ESP32 microcontroller using PWM control to dynamically regulate HHO injection and track active fuel consumption on a timed cycle.
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WORKSHOP EXPERIENCE

- Practised SMAW welding in 3G position using various joint configurations such as butt, T-joint, corner and lap joints.
- Performed MIG, TIG and oxy-acetylene welding for basic fabrication and joining applications.
- Operated CNC, milling and lathe machines for machining and component fabrication.
- Practised coupling installation and shaft alignment using shims and precision measuring gauges.
- Applied engineering drawings, measurement techniques and proper fitting procedures during practical workshop activities.
- Followed appropriate workshop safety procedures when operating machinery, tools and equipment.

EXTRACURRICULAR ACTIVITIES

- **July 2026:** Participant, **Johor Talent Development Council (JTDC) Program. (Polytechnic Level).**
 - **September 2023:** Participant, **Karnival SUKe @ SM Teknik** – Showcase Technical Product Outputs **(National Level).**
 - **June 2023:** Competed in the **Penang International Robot Competition (PIRC)** (SUMO Category), **(International Level).**
 - **December 2022:** Competed in the national-level **Petrosains RBTX Competition. (National Level).**
 - **December 2022:** Awarded a 2nd-place team medal at the **Myrobotz Challenge Competition** in Subang Jaya, Selangor. **(National Level).**
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TECHNICAL SKILLS

- Petrochemical & Plant Operations: Three-Phase Separator Operation, Wellhead/Hydrocarbon Phase Separation (Gas-Oil-Water), Scrubber Systems, Process Flow Analysis, Fluid Handling Protocols.
- Machining: CNC, Milling, Lathe, Hydraulic Press Brake Machine operation.
- Welding: SMAW, MIG, TIG and oxy-acetylene.
- Static & Rotating Equipment: Coupling alignment, shaft alignment, piping fitting, gate & butterfly valve inspection and assembly.
- CAD & Design: Basic 2D drafting & 3D modeling (AutoCAD, Autodesk Inventor, AutoCAD Plant 3D), engineering drawing setup.
- Software & Tools: Microsoft Office, Arduino IDE Software, Ableton Live 11 (Digital Signal Processing).
- Safety & Standards: CIDB Green Card Training (Scheduled: October 2026).

LANGUAGES

- Malay: Fluent (Spoken and Written)
 - English: Intermediate (Spoken and Written)
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ACHIEVEMENTS

- Anugerah Ketua Jabatan (Dean's List): Awarded for achieving a CGPA of 3.50 and above during Semesters 1, 3, and 4 of the Diploma Program.
 - Secured First Place in the interstream Science Month Competition competing against multiple technical courses such as Mechanical, Electrical, Civil, and others at the Technical High School.
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REFERENCES

Mr. Jamaludin Bin Mohd Tolkah
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