

MUHAMMAD SHADIQ BIN MOHAMMAD SHAHRIL

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18 August 2026

Internship Coordinator

PETRONAS CHEMICALS DERIVATIVES SDN. BHD.

PETRONAS Petroleum Industry Complex,
KM 106 Jalan Kuala Terengganu – Kuantan,
24300 Kerteh, Kemaman, Terengganu

SUBJECT: **APPLICATION FOR MAINTENANCE INTERNSHIP – PETRONAS CHEMICALS DERIVATIVES SDN. BHD.**

Dear Internship Coordinator,

I am excited to apply for the Maintenance Internship at PETRONAS Chemicals Derivatives Sdn. Bhd., Kerteh, where I can apply my mechanical engineering skills in a real plant environment. As a Mechanical Engineering Diploma student specializing in Petrochemicals at Politeknik Tun Syed Nasir Syed Ismail, I have developed a strong foundation in mechanical systems, instrumentation, and preventive maintenance practices. With a current CGPA of 3.59 and hands-on experience in fabrication, troubleshooting, and workshop operations, I am eager to contribute my technical skills and enthusiasm to support the reliability and safety of your plant operations.

I am particularly drawn to PETRONAS Chemicals Derivatives because of its reputation as a leader in the petrochemical industry and the opportunity to gain hands-on exposure to advanced plant operations and world-class maintenance practices. During my studies and workshop training, I gained practical skills in machining (CNC, milling, lathe), welding techniques (SMAW 3G, MIG, TIG, oxy acetylene), and static & rotating equipment maintenance, such as engine disassembly, assembly, and precision coupling alignment. I believe that applying these skills within PETRONAS's challenging plant operations will help me strengthen my technical expertise while showing my commitment to learning, contributing, and maintaining high standards of safety and quality.

For my Final Year Project, I designed and fabricated a physical thermodynamic test bench powered by a 4-stroke engine and engineered a custom HHO (Hydrogen-Oxygen) dry cell injection system with PWM control implemented using an ESP32 microcontroller. This project honed my technical troubleshooting, component fabrication, and real-world system testing capabilities.

In addition to technical execution, my active participation in national and international engineering and robotics competitions, along with completing the Johor Talent Development Council (JTDC) program has reinforced my adaptability, team collaboration, and focus on safety and quality in engineering work.

I am confident that my technical skills, commitment to learning and contributing, and background in mechanical and petrochemical principles will allow me to contribute effectively to your team. I would welcome the opportunity to discuss how my qualifications align with the Maintenance Internship role at PETRONAS Chemicals Derivatives. Thank you for your time and consideration.

Sincerely,



MUHAMMAD SHADIQ BIN MOHAMMAD SHAHRIL