

Industry Final Year Project (iFYP) at School of Chemical Engineering, Universiti Sains Malaysia.

Year	iFYP Title/Topic	Company
2025/6	Bioflocculation of Microalgae by Fungal	PETRONAS Research Sdn. Bhd. (PRSB)
	Effect of Drying Methods and Drying Temperatures on the Nutritional Composition of Selected Outdoor Cultivated Duckweed Genera	Tsukasa Petco Singapore Pte. Ltd.
	Cu Resistivity Measurement (Benching). Investigation of The Effects of Stabilizer Concentration and Hydrodynamic Conditions on Defect Formation and Thickness Uniformity in Electroless Nickel Plating. Process Optimization of Electroless Copper Plating for Improved Film Smoothness and Mechanical Strength. Contamination Characterization of Dielectric Post-Wet Process. Application of Cyclic Voltammetry Stripping for Quantitative Determination of Glyoxylic Acid in Electroless Copper Plating Mixture. SiC Activation for Electroless Nickel Deposition. Influence of Deposition Process on Delamination of Titanium Nitride Oxidation. Identification of the Chemistries of Premature Decomposition in Electroless Palladium Plating Baths. Investigation of Electroless Nodule Formation Induced by Pretreatment Chemicals. Contamination Studies for the Incoming Concentrate Pd for Electroless Pd Plating.	Infineon (Kulim) Sdn Bhd
	Optimising Acidification and Blending Parameters for Waste from Refined Butadiene Process	Toray Plastics (Malaysia) Sdn Berhad.
	Process Simulation and Optimization of Ammonia Recovery from Wastewater with Downstream Ammonium Sulfate Crystallization	Petronas Chemicals Fertilizer Kedah Sdn Bhd
	The Effect of UV Gluing Properties and Process on Filling Morphology in Small Tubular Substrate	Ambu Innovation Sdn. Bhd
	Optimization of Electroless Copper Plating Replenishment Procedure with Additives.	Infineon (Melaka) Sdn Bhd
	Investigating Temperature Fluctuation Causing Irregular Growth in Mushroom Fruiting Chambers through Computational Fluid Dynamics. Exploring Mycelium of Pleurotus Ostreatus as a Source of Binding Component for Packaging Materials Using Spent-Substrate.	Golden Fungi Sdn. Bhd.

	Risk and Resilience: Process Safety Analysis of Ammonia as Hydrogen Carrier.	PETRONAS
	Optimization of System Performance Using Aspen Plus to Address Hazop-Related Operational Issues. Simulation Based on Hazop Analysis using Aspen Plus.	CIH Consult Sdn Bhd
	Optimization of Roasting Parameters for Sesame Seed Oil Extraction. Optimization of Edible Oil Recovery from Sesame Sludge using Mechanical Pressing and Food-Grade Ethanol Solvent Extraction. Optimizing Recovery of Sesame Oil From Sesame Cake by Ultrasonic Assisted Extraction.	Ghee Hiang Manufacturing
	AI-Driven Predictive Modeling of Carbon Monoxide Emissions and Turbine Efficiency for Fuel Switching Optimization in GT17 Power Generation.	Sarawak Energy Sdn Bhd
	Optimization of Powder Coating Parameters to Enhance Coating Quality and Productivity in Motor Component Manufacturing	Minebea Electronics Motor (M) Sdn. Bhd.
	Electro-Oxidation Process to Remove the Refractory Components from the Biologically Treated Palm Oil Refinery Wastewater. Polishing of Treated Palm Oil Refinery Wastewater using Hybrid Ceramic Ultrafiltration – Nanofiltration.	Integrated Modern Environmental Control Sdn. Bhd.
	Ammoniacal Nitrogen Removal from Wastewater Using Zeolite: Performance Evaluation and Reusability Study.	Indah Water Konsortium Sdn.Bhd
2024/5	Development of Inferential Models for Refinery Process Quality Variables Using Machine Learning and Regression Approaches	Malaysian Refining Company (Melaka) Sdn Bhd
	Techno-economic analysis of micro-algae biomass pyrolysis	PETRONAS Research Sdn Bhd
	Magnetophoresis of iron oxide nanoparticles across stacked layers of cellulose matrix.	B. Braun Medical Industries Sdn. Bhd.
	Material characteristics study (mechanical resistance, chemical resistance, and molecular interactions) for the application of balloon-to-sheath adhesive for 2-way sensor catheter. Root cause analysis and solution development for manufacturing defects found in synthetic latex nasopharyngeal airway product.	Teleflex Medical
	Fireproofing study for refinery plant in Malaysia	PETRONAS
		INFINEON
	Study on reduction of oil and grease at CPI PPTSB	PETRONAS PENAPISAN SDN BHD

	Effect of extraction parameters on physicochemical properties of dried extract Kulim extract for beverage applications. Physiochemical properties of fresh Kulim extract under different storage and extraction parameters in beverage applications.	EMZI - UiTM NANOPARTICLE COLLOIDS & INTERFACE INDUSTRIAL RESEARCH LABORATORY (
	Optimizing hydrogen production from biogas by steam methane reforming. Effect of cryogenic LNG operating unit conditions on LNG temperature and cooling efficiency.	Cambridge CARES
2023/4	Si waste particle modification. Eless Cu on mold compound (additives studies). Eless Cu on mold compouund (nano bubble aeration). Eless Pd bath life improvement/Eless Ni/Pd electromigration. Plating chemicals by product removal. Si waste sludge purification & wastewater recovery prototype improvement. Hydroxylamine (polymer removal) - chemical process life extension. Development of chromatography methods for organic detection in nitride etch (H3PO4). Photolithography resist developer step & resist strip step improvement. Eless Cu Wafer level application. Development of chromatography methods for organic detection of chemicals.	Infineon
	Development and performance analysis of media filtration using phase inversion technology.	May Air