



PETRONAS

PETRONAS FUTURE**TECH** 4.0

*Scaling the next generation of technology
startups for industries of tomorrow*

DEMO DAY

25 August 2025
Kuala Lumpur Convention Centre

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Please email futuretech@petronas.com.my for any enquiries.

AGENDA

1:30PM - 2.00PM

- Registration & Startups Booth Showcase

2:00PM - 4.30PM

- Startups Pitches
- Startups Booth Showcase
- FutureTech Awards
- Networking Session

ABOUT THE PROGRAMME

What is FutureTech 4.0?

PETRONAS FutureTech is an accelerator programme tailored for early to growth startups, designed to bring innovative solutions into PETRONAS' innovation pipeline where they can be defined, piloted, and activated. The programme is committed to driving innovation, sustainability, and nation-building by identifying and nurturing emerging tech talent to tackle real-world industry challenges while fostering economic growth.

Through strategic collaboration with corporate partners across Asia Pacific, FutureTech equips startups with the tools and opportunities to scale, strengthening Malaysia's tech-driven ecosystem and contributing to the region's socio-economic transformation.

www.petronas.com/ventures



OUR KEY VERTICALS

Future of Industry & Work

Solutions that enhance operational efficiency and workforce capabilities. This includes predictive maintenance systems, inventory management platforms, HSE tools, and next-generation training technologies to reduce costs, improve safety compliance, and address skill gaps in industrial operations.

Future of Energy

Solutions that help tackle critical challenges in energy efficiency and emission reduction. This includes real-time energy monitoring, optimise energy usage, and provide actionable insights to achieve sustainability targets.

Future of Chemicals & Materials

Solutions that enable the development of sustainable and/or bio-based specialty chemicals and materials. Specifically, we are looking for startups whom we can partner with in our R&D efforts.

CORPORATE & ECOSYSTEM PARTNERS

Corporate Partners

S P SETIA



Ecosystem Partners

cradle

MRANTI
Malaysian Research Accelerator for Technology & Innovation



JETRO
Japan External Trade Organization



MEET THE FUTURETECH 4.0 COHORT

Future of Industry & Work



Future of Energy



Future of Chemicals & Materials



PING Ventures

SEEd.Lab Ventures



JURY MEMBERS



Dr. Fauzy Omar Basheer Othman
Senior General Manager,
Technology Digital Solutions
PETRONAS



Toshihiko Mori
Director
Panasonic Asia Pacific Pte. Ltd.



Prof Dr Rofina Yasmin Othman
Chairman & Board of Director
Malaysian Research Accelerator for
Technology & Innovation (MRANTI)



Yi Chung Ng
Partner
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Future of Industry & Work



Abhishek Mari Gowda
Director of Technology



Chinar Gauri
Product Marketing Manager



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Altoura is a VR training platform that helps enterprises onboard employees faster and reduce workplace injuries through immersive, hands-on learning.

About us:

Altoura is an AI-powered spatial computing platform that transforms standard operating procedures into immersive VR/AR training and collaboration experiences—helping frontline teams train 60% faster and reduce errors across industries. Its no-code builder and AI assistant, Prodigy, enable businesses to create and deploy interactive 3D learning content at scale, bridging the gap between virtual instruction and real-world execution.

Our solution:

Altoura Frontline is an AR solution designed to empower frontline workers with hands-free task guidance, real-time remote collaboration, and AI-powered training. It helps teams perform complex procedures with greater accuracy and efficiency—anytime, anywhere.



Rashad Tajuddin
CEO and Founder



Hajar M Arifin
CFO



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Enygma makes surveillance and inspection smarter, faster, and safer with AI.

About us:

Enygma is a Malaysian AI startup delivering a cutting-edge platform for automated inspections, asset integrity and digital twin services. Trusted by major clients like PETRONAS Gas and Pertamina, Enygma combines AI, computer vision, and predictive analytics to support industrial-grade monitoring and decision-making across sectors.

Our solution:

Through its Sentry platform, Enygma integrates data from surveillance cameras, drones, and satellite imagery into an AI-powered inspection engine. It reduces pipeline inspection times from weeks to just hours, speeds up report generation by up to 10x, and delivers real-time alerts, predictive fault detection, and digital twin visualisation to boost operational safety and efficiency.

KinetixPro



Joel JH Lee
CEO and Co-Founder



Muhammad Luthfi
Machine Learning Engineer



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AI for Workplace Safety.

About us:

KinetixPro is a Singapore-based AI startup, founded in 2022, that empowers industrial and logistics sites to transform their existing CCTV infrastructure into a real-time safety monitoring system. Their computer-vision platform automatically identifies workplace hazards, non-compliant behaviours, and security anomalies—helping companies reduce incidents and enhance operational oversight.

Our solution:

KinetixPro's Safety-AI platform continuously processes feeds from CCTV cameras to detect risks like missing PPE, improper practices, or hazardous proximity incidents. It provides instant alerts, behaviour analytics, and trend dashboards to enable proactive safety interventions—serving industries ranging from manufacturing and ports to oil & gas and warehousing. The system is plug-and-play compatible, optimised for low bandwidth, and scales across global operations.

LiLz Gauge



Aya Thosert-Belcher
Head of Global Expansion



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Remote inspection solution for analogue gauges powered by AI.

About us:

LiLz Inc. is a Japanese IoT/AI startup developing LiLz Gauge, a remote inspection platform that automates the reading of analogue gauges using ultra-low-power cameras. It enables industrial facilities—often lacking power or network access—to digitise analogue gauge data without manual visits, significantly boosting inspection efficiency.

Our solution:

LiLz Gauge uses battery-powered IoT cameras with built-in LTE that can operate continuously for up to three years (based on capture frequency). The system captures gauge images multiple times a day, automatically extracts numerical readings through AI/ML vision algorithms, and sends the data to a cloud dashboard or existing maintenance systems via API. It supports diverse gauge types and multiple instruments per image, reducing manual labour and enabling trend monitoring and alerting remotely.



Mudasser Iqbal
CEO



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TeamSolve codifies human expertise and makes it actionable for faster incident response and smarter asset renewals.

About us:

TeamSolve is a Singapore-based AI startup founded in 2022. The company develops Agentic AI co-pilots—notably their flagship Knowledge Twin™—designed to support frontline operators and managers with real-time insights into asset health, safety, and efficiency. Their solutions help organisations retain critical institutional knowledge and overcome workforce challenges in utility, industrial, and commercial operations.

Our solution:

Knowledge Twin™, an industrial co-pilot that helps frontline teams diagnose issues, plan maintenance, and stay compliant—using familiar tools like WhatsApp. By combining institutional knowledge with real-time field input, it reduces time spent on-site by up to 40% and accelerates onboarding for new hires by months.



Jagadish Gattu
CEO and Founder



Janmejay Dash
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Patented AI-based Operational Excellence (OEx) platform for heavy industry that mimics experts to improve operations and increase profitability.

About us:

UptimeAI is an AI-powered SaaS platform focused on transforming reliability across heavy industries like oil & gas, chemicals, metals, and cement. Trusted by enterprise clients such as Shell and Chevron, UptimeAI delivers explainable, self-learning AI that acts like a virtual expert—combining engineered domain knowledge with real-time data and operational workflows.

Our solution:

The AI-Expert OEx platform continuously ingests sensor and process data from across the plant to detect anomalies and suggest prescriptive actions—eliminating false alarms by up to 10x and driving a 7x faster ROI within three months. Clients have reported maintenance cost reductions of around 30% and significant annual savings, including more than US \$1 million per plant in heavy industry deployments.



Dr. Wandee Wattanakrit
CEO



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MUI-Robotics is a deep-tech startup in Sensory AI which imitate human smell sense for Quality Control and Environmental Monitoring.

About us:

MUI-Robotics is a deep-tech startup based in Thailand that pioneers Sensory-AI, enabling machines to truly sense smell. Their flagship AI-Nose reliably mimics the human sense of smell with up to 98% accuracy, eliminating the inconsistencies and limitations inherent in human testing.

Our solution:

The AI-Nose platform combines advanced olfactory sensors with AI-driven processing to convert smells into digital "Smell IDs." It's deployed across industries such as food & beverage, cosmetics, agriculture, chemicals, and environmental monitoring to automate odor detection, contamination alerts, and quality control—enhancing consistency, efficiency, and safety in repetitive or hazardous workflows.



Mohammad Hafiz Hasan
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Simplifi.my is a digital platform revolutionising property transactions by seamlessly connecting homebuyers with lawyers, bankers, agents, and runners—all in one place.

About us:

Data Analytech Sdn Bhd, headquartered in Penang, Malaysia, is the technology company behind Simplifi.my. Simplifi.my is a cloud-based SaaS platform that brings together buyers, sellers, lawyers, bankers, and agents in a unified ecosystem to streamline property transactions and legal workflows.

Our solution:

Simplifi.my offers features like case tracking, secure document uploads, client dashboards, automated notifications, and stakeholder communication—purpose-built for conveyancing law firms. Its automation reduces manual tasks, enhances transparency among participants, and accelerates property transaction timelines.

LOGICAL STRUCTURE



**Mohammed Hasif
Aktar**
Founder



**Syed Haziq Ali
Syead Mohamad Raffie**
Sales & Marketing Executive



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The New Era of Modular Living.

About us:

Logical Structure is an innovative, lean-driven startup focused on bridging everyday challenges with the most efficient technologies to deliver affordable, practical, and scalable solutions. While many focus on trending markets, we prioritise real-world problems that are often overlooked, bringing simple, effective solutions back to the forefront.

Our solution:

By 2030, 1.6 billion or 20% of the global population will lack adequate housing, despite it being a basic human need. Modera is our highly scalable concrete modular housing system, designed to address this crisis with speed, affordability, and sustainability. Engineered for flexibility and circular economy principles, it empowers families to start small and expand over time, providing much-needed opportunities for all. Ultimately, we aim to revolutionise this labour-intensive industry, much like the EV, through seamless integrated ecosystem of cutting-edge digital and physical solutions.





Future of Energy



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CEO and Co-Founder



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System Engineer



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AltoTech offers intelligent, data-driven solutions to manage air-side and water-side systems, reducing energy consumption, enhancing operational efficiency, and driving sustainability across diverse industries.

About us:

AltoTech is a Thai startup driving energy sustainability with its AIoT platform, Alto CERO. The platform enables hotels, commercial buildings, and factories to reduce energy consumption and carbon emissions through smart automation powered by IoT and AI.

Our solution:

Alto CERO offers real-time monitoring and intelligent control of HVAC, lighting, and energy systems. By combining sensor data with AI algorithms, it delivers hands-free automation, predictive maintenance alerts, and actionable insights—helping clients lower energy bills and environmental impact efficiently.



Blue Whale Energy



Gabriel Lim
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Software Engineer



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Blue Whale Energy is a battery-powered virtual power plant.

About us:

Blue Whale Energy is a climate tech startup building a battery-powered virtual power plant to accelerate the energy transition in cities. By manufacturing and deploying sodium-ion battery modules for commercial and industrial sites, the company turns everyday buildings into distributed energy assets.

Our solution:

The company manufactures compact sodium-ion battery modules designed to fit under rooftop solar panels, making them ideal for space-limited urban buildings. These batteries require no complex fire mitigation or cooling systems and are deployed at zero upfront cost. Once installed, they are connected into a virtual power plant that provides flexibility to the grid while helping customers lower energy costs and emissions.



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Powering a sustainable future with hydrogen technology.

About us:

Faraday's Energy is a Malaysian green-tech startup specialising in clean hydrogen solutions. Their flagship product, FELECTRON, delivers a hydrogen-based energy system designed to replace diesel generators with quieter, lower-emission power for industrial, agricultural, and remote settings.

Our solution:

FELECTRON utilises hydrogen electrochemistry, producing power with minimal operational noise and no combustion-based emissions. Tailored for off-grid or backup applications, it offers a sustainable alternative to diesel with potential cost and environmental benefits.



Prof. Izumi Ichinose
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World lowest-cost CO² Separation Technology.

About us:

Carbon CryoCapture is a pioneering cleantech startup committed to achieving zero greenhouse gas emissions in natural gas, hydrogen, and biogas operations. They employ a cutting-edge, low-cost CO² capture technology that combines cryogenic separation with polymer sorbent (PDMS) to deliver efficient and scalable decarbonisation.

Our solution:

Their system cools and compresses gas streams to induce CO² solidification and separation, using PDMS—a durable and flexible polymer with excellent low-temperature stability. This cryogenic process delivers high-purity CO² capture with minimal energy input and avoids chemical reagents. Applied at natural gas wells or hydrogen/biogas facilities, Carbon CryoCapture's solution enables energy developers to eliminate emissions at source and support the transition to cleaner fuels.

ASUENE



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Your all-in-one decarbonisation partner and thrive in a net-zero future.

About us:

Asuene is Japan's No.1 carbon-accounting SaaS platform, trusted by over 10,000 organisations to measure, report, and manage Scope 1–3 greenhouse gas emissions across supply chains and operations. As a certified B Corp and climate tech leader in Asia Pacific, Asuene supports businesses on their end-to-end decarbonisation journey.

Our solution:

Asuene also offers an Agentic AI-powered HVAC optimisation solution that helps companies enhance energy efficiency and reduce emissions. In partnership with major industry players, the solution provides automated HVAC tuning, predictive analytics, and intelligent energy control—making sustainability efforts smarter, faster, and more measurable.



Ashish Justin
CEO and Co-Founder



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We are an Agentic AI power HVAC Optimisation solution company.

About us:

Carnot Innovations is a climate tech startup focused on optimising chiller plant operations through Agentic AI. Their platform is designed to boost energy and operational efficiency in commercial buildings, using advanced logic and machine learning without altering existing infrastructure.

Our solution:

By harnessing Large Language Model (LLM) technologies and real-time operational data, Carnot dynamically adjusts chiller plant setpoints, identifies inefficiencies, and enables predictive control. This results in lower energy consumption, reduced carbon emissions, and smoother building management—all with minimal integration friction.



Future of Chemicals & Materials

VETOMIN-M™

Natural Multivitamin For Livestock



Siti Sofiah Ramli
CEO and Founder



Dr. Wan Mahani
COO and Co-Founder



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VETOMIN - Innovative natural immunity booster for livestock made from coconut oil.

About us:

Dunita International Sdn Bhd is a Malaysian agritech and animal-health startup behind Vetomin-M, a natural immunity-boosting multivitamin for livestock made from virgin coconut oil. Formulated by a team of veterinarians, medical doctors, and bioscientists, Vetomin-M uses high-Lauric-acid coconut oil enriched with omega nutrients to support health and growth in poultry—naturally and without synthetic additives.

Our solution:

Vetomin-M is a drug-free, halal-certified alternative to conventional livestock supplements, leveraging coconut oil's antimicrobial properties to reduce disease risk and antibiotic reliance across farms. Tested and validated by Malaysia's Department of Veterinary Services, the product is scaling through domestic and international deployment to support sustainable livestock farming and healthier animals at scale.



Amit Kumar Khan
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Greenitio produces sustainable, high-performance alternatives to specialty petrochemicals.

About us:

Greenitio is a Singapore-based climate-tech startup using computational materials science and green chemistry to design and manufacture bio-based specialty chemicals. They produce biodegradable polymers and ingredients that serve as high-performance, plant-derived alternatives to conventional petrochemical materials across personal care, cosmetics, food packaging, and more.

Our solution:

Using AI-powered molecular design and a proprietary water-based process, Greenitio transforms plant waste and renewable feedstocks into biodegradable polymers. Their ingredients—like Chitobe and Chitobela—deliver moisturising, UV-protective, and antimicrobial benefits, helping brands formulate safer, cleaner, and more eco-friendly products while reducing carbon emissions by up to 90%.



Dr. Nisha Govender
CEO and Founding CTO



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Green agritech startup addressing fertiliser inefficiency through cutting-edge controlled-release technology for precision fertilisation.

About us:

Nanofertech is a Malaysian agritech startup pioneering precision fertilisation through affordable, high-performance controlled-release nanobiotechnology. Through a circular economy mindset, they aim to increase fertiliser efficiency and reduce environmental impact in Southeast Asian farming systems.

Our solution:

Their flagship technology, LAMATu, is a controlled-release fertiliser using biodegradable nano-coatings to regulate nutrient delivery over the crop lifecycle. With AI-driven modeling and tailored release profiles, it enables one-time application—reducing nutrient loss by up to 50–70 percent while enhancing yield, lowering labour, and supporting long-term soil health.



Professor PJ Cullen
Co-Founder and Chief Science Officer



Dr. Charlie Cao
CTO



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PlasmaLeap builds some of the world most advanced zero-emissions chemical reactors for hard-to-abate sectors.

About us:

PlasmaLeap Technologies is an Australian cleantech startup engineering cutting-edge, zero-emission plasma reactors that enable distributed chemical synthesis for hard-to-decarbonise industries. Their systems produce green eFuels, fertilisers, and specialty chemicals using only electricity, air, and water—eliminating reliance on fossil fuels.

Our solution:

Their modular eNFix units use plasma-assisted chemistry under ambient conditions to convert air and water into nitrogenous fertiliser or eFuels. These reactors are tightly integrated with renewable energy sources and enable on-site production—a scalable alternative to energy-intensive Haber-Bosch processes. PlasmaLeap targets energy efficiencies reaching ~20 kWh per kilogram of ammonia and offers competitive on-farm fertiliser production at approximately US\$ 0.95–1.42/kg, while dramatically reducing CO₂ emissions.



PETRONAS Incubated Startups

Alngineer



Lee Kian Seng
CEO



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CTO



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AI copilot augmenting engineers with deep technical knowledge and insights from codes, standards and institutional database.

About us:

Alngineer is a venture from PING or PETRONAS Innovation Garage - a wholly-owned subsidiary of PETRONAS Leadership Centre (PLC), dedicated to employee-driven innovation and entrepreneurship. Alngineer is a Malaysia-based industrial AI startup developing an AI copilot for engineers, deeply embedded into everyday workflows. Designed by engineers for engineers, it integrates with technical databases, engineering codes, and standards to elevate decision-making, preserving institutional knowledge while enhancing reliability and reducing diagnostic time.

Our solution:

Leveraging Large Language Models (LLMs) and machine learning, Alngineer augments engineers by instantly retrieving precise, explainable technical guidance relevant to their tasks. In collaboration with PETRONAS and Microsoft, their platform has demonstrated measurable improvements in operational efficiency, lower maintenance costs, and accelerated engineering workflows.

aqufish



Rafiq Hakim Bin Razali
CEO



**Wafiy Hilman
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CTO



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Aqufish is a Malaysian aqua-tech startup revolutionising fish farming with AI-powered solutions for sustainable, efficient aquaculture.

About us:

Aqufish PLT is a Malaysian aqua-tech startup transforming fish farming with AI-powered innovation. Their platform, including AquMonitor, supports local fish farmers by automating feeding and monitoring systems to boost productivity and enhance sustainability across the aquaculture industry.

Our solution:

Their AI-driven auto feeders detect fish hunger signals in real time, reducing overfeeding, feed waste, and operational costs. Simultaneously, their smart monitoring systems analyse water quality and fish behaviour for actionable insights—helping farmers increase yield, cut feed expenses, and operate more sustainably.



SEEd.Lab



**Luqman Hakim
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CEO & CTO



Tan Gim Thee
CFO



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Using satellite technology to detect pest & disease in farm monitoring.

About us:

Pro Ladang is a Malaysian agritech startup that empowers farmers through satellite-based precision agriculture. Their signature platform, AgriAssist, transforms daily satellite imagery into actionable insights—helping farmers monitor crop health, detect stress, and optimise field interventions in near real-time.

Our solution:

Pro Ladang is a venture from SEEd.Lab or Social Enterprise Education Laboratory. SEEd.Lab, powered by PETRONAS and Tata Consultancy Services (TCS), is a social enterprise innovation hub dedicated to nurturing sustainable social enterprises by empowering and guiding aspiring entrepreneurs through end-to-end journey of startup. Using AI-powered analysis of multispectral satellite data, AgriAssist identifies early signs of pest infestations, diseases, and nutrient deficiencies—often days before symptoms are visible—enabling proactive field management. The platform also tracks nitrogen and chlorophyll levels to guide precision fertilisation decisions, reducing waste and improving yield outcomes.

TECH TREK: DISCOVER, COLLECT, WIN!

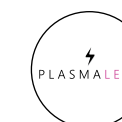
The journey is not without rewards!

Visit and talk to our startups at their booth, stick the stickers here and redeem the rewards!

Future of Industry & Work



Future of Chemicals & Materials



Flip to the next page for more instructions!

TECH TREK: DISCOVER, COLLECT, WIN!

The journey is not without rewards!

Visit and talk to our startups at their booth, stick the stickers here and redeem the rewards!

Future of Energy



PETRONAS Incubated Startups



Name:

Email:

Startups(s) you wish to connect with:

PETRONAS FUTURETECH 4.0

TECH TREK: DISCOVER, COLLECT, WIN!

- Visit and talk to our startups at their booths.
- Collect a sticker from each booth you visit.
- Make sure you visit at least 10 booths.
- The journey is with rewards! Once you have collected at least 10 stickers or 19 stickers, please visit our Redemption booth to claim your rewards!

*Be quick! Each booth will have a limited amount of these stickers to give!



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