



**Experiencing
is Enriching**

We Are Your Technical Learning Solutions Partner

PETRONAS Technical Training Sdn Bhd (956097-W)

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Instep



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INSTEP

Experience INSTEP



Learning Programmes

At INSTEP, we offer programmes in two main areas:

Onboarding Solutions, full-time training to bridge technicians' and engineers' existing knowledge & skills with the required competencies by the industry

Technical Certification Solutions, competency-based training programmes designed to certify technicians and operators with Baseline Assessment studies in meeting statutory requirements

Facilities Hire

Upstream Downstream Training Plant (UDTP)

UDTP is the key element of PETRONAS' experience-based technical training concept.

UDTP is a suitable testbed to test and pilot new & innovative technology development in **safe and real-world simulation** of Upstream & Downstream Plant scenarios. It enables **experiential learning, technology deployment** and **competency development**.

Contact us to find out what other facilities are available.





Consultancy

Competency Management Solution

How career-ready, future-ready, and world-ready is your workforce?

As your capability caretaker, we offer end-to-end consultancy services to realise the full potential of your workforce.

INSTEP offers excellent network of **certified instructors and subject matter experts** with **solid assessment and verification processes** for continuous competency enhancement.

We cover **competency gap analysis, technical capability development and sustainability**, as well as **competency-based assessments** to support your needs.

End-to-End Consultancy Services

Unlock the potential of local talents, faster, and with greater certainty

We take responsibilities for your vision of **capability development** and **make it a reality**.

We are ever-ready to help our clients **setting up their own training ground to grow** and **expediting the development of local talent** by providing comprehensive end-to-end consultancy services for capability development solutions.

We have the expertise and experience to help you determine the optimal approach, and we make it both **practical and actionable**.



Ignite Learning Possibilities

Exploration & Production

Focuses on exploitation and processing of oil and gas, as well as provides actual offshore rig environments at UDTF

Professional Development Programmes

- Introduction to Upstream Petroleum Technology
- Gaslift Operations and Optimisation
- Introduction to Petroleum Technology

Assessment & Certification Programmes

- Advanced Pigging Operation Certification Scheme
- Upstream Panel Operator Certification Programme



Pigging Test Loop

Process & Analytical

Provides training in process, utilities, refinery, gas processing, petrochemical, LNG processing, and testing for crude, water, and petroleum products

Professional Development Programmes

- Water and Wastewater Analysis
- Filter and Strainer: Operation and Care
- Reactor: Operation and Care

Assessment & Certification Programmes

- Certified Environmental Professional in the Operation of Industrial Effluent Treatment Systems - Biological Processes
- Panel Operator Training & Competency Programme



Distillation and DCS Practice

Electrical

Offers fundamental principles of electrical engineering to high-level programmes, which focus on operation and maintenance of electrical equipment

Professional Development Programmes

High Voltage Switching and Generator Synchronising
Selection, Installation and Inspection of Ex Equipment in Hazardous Area
Low Voltage & High Voltage Overhead Transmission Lines

Assessment & Certification Programmes

Chargeman A0, A4, B0 & B4
IECEx Certification of Personnel Competence



Ex Equipment Wiring Bay

Mechanical & Inspection

Provides training, certification and consultancy services; focuses on developing skills for maintenance job for mechanical equipment at processing plant

Professional Development Programmes

Positive Displacement Pump
Single State Centrifugal Pump
Diesel Engine: Operation & Maintenance

Assessment & Certification Programmes

Steam Boiler Engineer Grade 1 & 2
Internal Combustion Engine Engineer Grade 1 & 2
Steam Boiler Driver Grade 1 & 2



Design, Operation, Maintenance and Inspection of Gas Turbine

Instrumentation

Offers well-structured training programmes covering Field Instrumentation, Quality Measuring Instrument, and other industries for technicians and engineers

Professional Development Programmes

Fundamental of Process Measurement
Distributed Control System Operation
Control Valve

Assessment & Certification Programmes

Instrument Fitter
Tank Gauging & Calibration
Metering Calibration & Validation



Liquid Metering Training Skid

Health, Safety & Environment

Delivers theoretical and practical training sessions for pre-employment, short courses and long-term programmes to fulfill requirements for competent manpower

Professional Development Programmes

Tripod Beta Incident Investigation
Risk Assessment Tools (BowTie, HAZID, HAZOP and PASR Application)
Working at Height

Assessment & Certification Programmes

Authorised Entrant and Standby Person for Confined Space
Certified Environmental Professional in Scheduled Waste Management



Authorised Entrant and Standby Person (AESP)

Empowered by Innovation

Upstream Downstream Training Plant (UDTP)

PETRONAS' experience-based technical training concept

Simulates Real Plant Scenarios

Key element of PETRONAS' experience-based technical training concept

At UDTP, learners have the opportunity to perform real activities on a live plant under non-hazardous environment. Through hands-on training as well as experiential learning guided by experienced and qualified instructors, we can enhance our learners' competencies and equip them with the right skill of tomorrow.

Some activities related to learning at UDTP include:

- Training to support learning modules
- Student visit (physical or virtual)
- Live demonstration of practical work
- Job familiarisation or On Job Training (OJT)
- Plant turn-around
- Plant process & coordination
- Plant start-up & shutdown
- Plant maintenance training



Innovative Research & Development

INSTEP supports the research & development of latest industry and technology solutions in the energy industry

UDTP is a suitable testbed to test and pilot new and innovative technology deployment in safe operating conditions before the full commercial application as it has the capability to simulate real Upstream and Downstream plant scenarios in a safe environment.

Some activities related to beyond-learning at UDTP include:

- Research & Development (R&D)
- Testing of equipment/new product
- Technology readiness assessment or deployment
- Pilot project
- Broadcasting (documentary video/corporate video shooting)



Learning and Technology

Experiential/ Interactive Learning



- Practical workshop
- Simulation
- On-the-job training

Collaborative Learning

- Group project
- Case study
- Scenario based



Futuristic Learning

INSTEP is committed to preparing the global workforce of tomorrow as it continues to progress towards being a digitally-enabled learning organisation. This is why INSTEP puts great care and emphasis on embedding futuristic learning methods into its courses.



Virtual
Reality (VR)



Virtual Instructor-Led
Training (VILT)



Live
Demonstration

Why VILT?

Lecture-Based Learning



Face-to-face classroom session

Cost Effective

Value-added offerings with significant reduction in original training fees



Interactive

Live virtual engagement with live instructors through various means



State-of-the-Art

Multi-mode delivery techniques (verbal, vocal and visual)



Augmented Reality (AR)



Simulator

Guided

Personalised guidance by instructors during online and offline activities



Your Journey Starts Here

ExxonMobil

ExxonMobil has constantly been sending learners since 2008 as a result of their continual trust and belief in our competent technical learning solutions. A total of 405 job-ready technicians has been produced so far.

Apart from enriching their technical talents, we have also delivered customised intensive training programmes to reskill their IT personnel to become production operators by capitalising our training plant and practical workshops to accelerate their competencies through experiential and hands-on learning.

Our proven track record with ExxonMobil Malaysia has made INSTEP as the potential Asia Pacific regional training centre for ExxonMobil Headquarter in Houston.



For Oman Oil Refineries and Petroleum Industries Company (ORPIC) experienced engineers, we designed a wholesome programme to progressively strengthen their competencies.

The blended learning started with interactive classrooms and practical workshops, On-The-Job at INSTEP UDTP, and finally attachment at PETRONAS live operating plants. The 6-week attachment provides exposure to real case scenarios.

We create values by providing experiential learning and industry technology-driven learning solutions, which can be customised to better suit the clients' or learners' needs.



“Amazing facilities, amazing staff, amazing PASSION.”

Troy Tranquada
Manager
Global Workforce Development
ExxonMobil
Houston

“The instructors strived hard to deliver the right materials and tools. We had group discussion every day and presentation at the end of every week which improved our personal development skills.”

Ruwayia Al Mogbali
Engineer
Oman Oil Refineries and Petroleum
Industries Company (ORPIC)
Oman

“There is not only classroom training, but practical training, for example at fire training ground, confined space and working at height, that helps me to study effectively.”

Kento Matsuoka
Engineer
INPEX Corporation (INPEX)
Japan

“Simulations at training facilities allowed me to have rooms for errors, and from these errors, I understood how to correct those errors, giving me confidence in performing the necessary tasks in operation(s).”

Katherine Manus
Engineer
Oil Search Limited (OSL)
Papua New Guinea

A Progressive Solutions Partner Enriching Energy Workforce for A Sustainable Future

Our Winning Formula

Over
42 years

of oil and gas technical
training experience



Industry & Technology Driven Technical Learning Solutions

To prepare future-ready global energy
workforce, equipped with the right skills
of tomorrow

More than
156,000

technical workforce trained
since 1981



Customised Learning Solutions

Address different learning needs to help
learners and clients reach their full
potential

Serving clients from
over **50**
countries



Facilities as Testbed

Expanding the learning facilities
utilisation to support PETRONAS and
the industry research

Learners' Capacity
1,000

learners at a time
on a 200-acre campus
with integrated facilities



International Certification

Internationally accredited energy centre
with industry experienced instructors,
capable of delivering high quality
programmes

Capability Caretaker

Strengthen and close learners'
competency gap

Accreditations & Certifications



Awards & Recognition

MALAYSIAN SOCIETY FOR
OCCUPATIONAL SAFETY &
HEALTH
Gold Merit Award
2022



RoSPA HEALTH & SAFETY
Gold Award
2020, 2021 & 2022



EXXONMOBIL SUPPLIER TRACKING
ASSESSMENT & RATING (STAR)
Excellence Award
2021



BTEC INTERNATIONAL
INSTITUTION OF THE YEAR
2021
Silver Award



MALAYSIAN SOCIETY FOR
OCCUPATIONAL
SAFETY & HEALTH
2017, 2018, 2019 & 2021
Gold Class 1 Award



PRIME MINISTER'S
HIBISCUS AWARD (PMHA)
2019/2020
Notable Achievement Award
in Environmental Performance

GLOBAL GETENERGY AWARD
2019
Localisation Award



OUTSTANDING PEARSON
LEARNER AWARD
2016, 2017, 2018 & 2019



HUMAN RESOURCES
DEVELOPMENT AWARD
2017
Data Analytics Category





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