

COMPANY PROFILE



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ABOUT COMPANY

Driven to achieve industrial perfection

Insmech Engineering Sdn Bhd is a reputable Non-Destructive Testing (NDT) service provider based in Kuala Lumpur, Malaysia. Established in April 2008, we specialize in non-destructive testing procedures for, but not limited to, boiler and heat exchanger tubes such as Eddy Current Testing (ECT), ECT Array, Remote Field Electromagnetic Testing (RFET), Internal Rotating Inspection System (IRIS), Magnetic Flux Leakage (MFL), Acoustic Pulse Reflectometry (APR), Borescope, Surface Eddy Current Testing (SECT), Ultrasonic Thickness Testing Measurement (UTTM), Dye Penetrant Inspection (DPI) & Magnetic Particle Inspection (MPI)



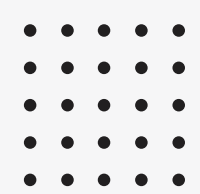
Our responsibility to the bigger picture

Our focus lies on Quality of Inspection and HSE Health, Safety and Environment (HSE). We ensure our processes meet all applicable guidelines and regulations while adopting the best industrial practices and training. At the same time, we strive to deliver added economic values to our client's technology.

Giving clients operational confidence

As an ISO 9001:2015 & ISO 45001:2018 certified company, we ensure your assets meet necessary compliance standards with minimal disruption. We aim to provide you with cost-effective and simplified solutions so that you have the safety and functional certainty to succeed.





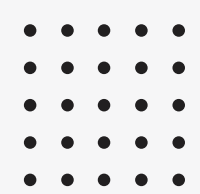
VISION AND MISSION

MISSION

- To exceed our clients' expectations.
- To maintain the highest industry standards for all our processes.
- To champion improvements and innovation that drive accuracy and productivity.

VISION

To be the leading NDT Inspection Company in the Asia Pacific Region.



CORE VALUES

INTEGRITY

Transparency and honesty are embodied in everything we do, from interactions with customers, suppliers and colleagues to business conducts and processes.

COURAGE

We do what needs to be done for the success of our clients.
We adhere to a higher standard of personal conduct and lead by example.

COMMITMENT

Our determination is relentless in the pursuit of achieving excellence for our clients. We are prompt in our communications and efficient in our actions.

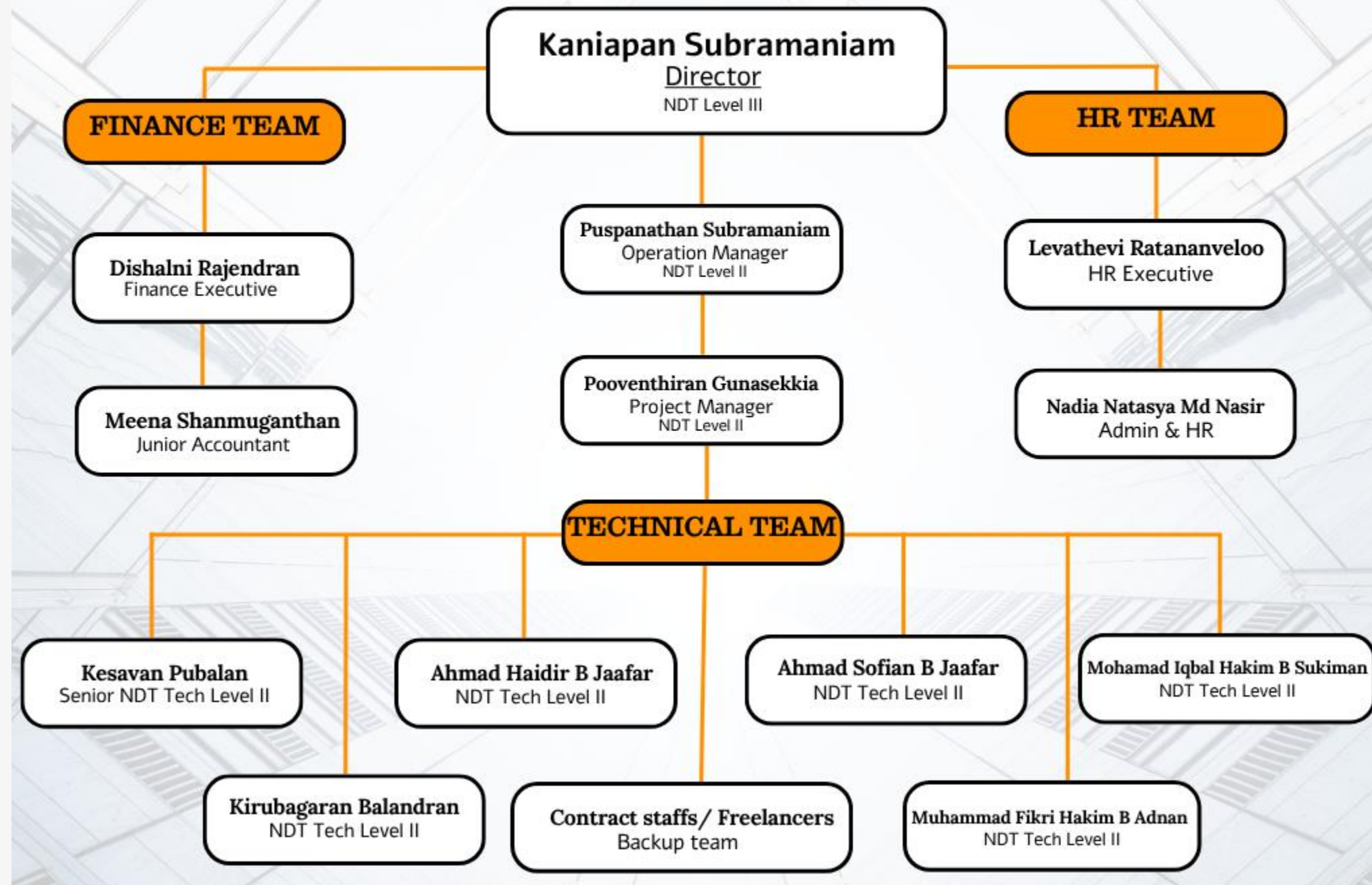
COMPASSION

We strive for meaningful relationships with our clients and coworkers by fully understanding their needs and objectives

MEET OUR TEAM

COMBINING DIVERSE EXPERTISE
FOR A COMMON GOAL

IESB Organization Chart



COMPANY INFORMATION

Name: Insmech Engineering

Sdn Bhd

Company Reg. No. : 812607-P

Corporate Status: Private Limited Company

Date of Incorporation: 6 April 2008

Registered Address: No. 7 Jalan Midah 12

Taman Midah 56000 Cheras, Kuala Lumpur

Wilayah Persekutuan

Tax ID No: C 2069747709

Business Address: No. 7 Jalan Midah 12

Taman Midah 56000 Cheras,

Kuala Lumpur Wilayah Persekutuan

Director: Sharu Subramaniam

Contact No: +6012 345 7949

Company Secretary:

Chong Lip Chee

Address: Blk J7-0-4, Desa Pandan

55100 Kuala Lumpur Wilayah Persekutuan

Auditor: JL Consulting Sdn Bhd

243A, The Summit Persiaran Kewajipan

47600 Subang Jaya, Selangor

Bankers: CIMB Taman Mutiara Cheras

No. 2468, Jalan Mutiara Timur 1

Taman Mutiara

56100 Cheras Kuala Lumpur

VALUE PROPOSITIONS

SERVICE CULTURE: We go above and beyond to ensure our client's objectives are not only met, but exceeded. Their needs are placed at the forefront of our business operations, empowering our team to take positive initiatives to service our customers. Our experts are trained to think critically and take creative action to add value to your machinery.



EMPLOYEE ENGAGEMENT: At Insmech Engineering, we empower our people by providing unending resources and support. Our work environment encourages them to have a say in the organisation and freely express ideas and views in any decisionmaking process. Built with trust and bonded by mutual respect, our team readily works together towards a common goal.

SERVICE QUALITY: Our long list of returning clients is a testament to our exceptional service quality. We remain economically competitive in the local NDT industry while providing a high level of customer service. Feedbacks from our current or potential customers have kept us on the right track. We believe by constantly improving and evolving, Insmech Engineering will climb to be Malaysia's NDT service provider of choice.

CUSTOMER EXPERIENCE: Great customer service is guaranteed with Insmech Engineering. Every move we make is guided by our mission to achieve a positive and enjoyable customer experience. Our team is trained to be approachable, responsive and knowledgeable in solving any of your inspection needs with creative and cost-effective solutions.





OUR QUALITY & SAFETY POLICIES

Insmech Engineering Sdn Bhd promotes the following:

- Compliance with ISO 9001:2015, ISO 45001:2018 and NIOSH
- A “target zero” principle that encourages reporting of all incidents and accidents to the higher management team for further investigation and preventative measures
- Continuously striving for improvements in quality, safety management and inspection performance

- Regular health and safety training, ensuring all personnel are equipped with the knowledge to execute procedures safely and are prepared for worst-case scenarios
- Annual review of safety and quality policies to ensure all staff are made aware of their responsibility and obligations

Get to know what is OUR SERVICES



1. Why do you need NDT Services?

- With NDT service, you can detect any damages or faults without compromising the whole structure of your machinery

2. Benefit of NDT Services?

- To ensure your components or materials are in perfect condition

3. How about our NDT Services

- We provide a Non-intrusive, cost-effective, simplified solutions



4. What are the types of NDT Services we provide?

ADVANCED NDT

RFET

ECT

MFL

APR

IRIS

BORESCOPE

SURFACE ECT

ECT ARRAY

ACOUSTIC
EMISSION

BASIC NDT

MPI

DPI

UTTM



OUR ADVANCE NDT SERVICES



REMOTE FIELD TESTING (RFET)



Also known as Remote Field Eddy Current (RFEC) or Remote Field Electromagnetic Technique (RFET), RFT is a popular choice for inspections of ferromagnetic tubing on boiler tubes and heat exchangers – with reason. Our RFT technology offers:

- Equal sensitivity on inner and outer surfaces
- High-level sensitivity to wall thickness variations
- Effectively locates any anomalies or defects with little attenuation.

OUR ADVANCE NDT SERVICES



EDDY CURRENT TESTING (ECT)

Our ECT method is used to inspect nonferrous tubes. It offers fast and efficient inspection with technology that adds a layer of flexibility and versatility. The ECT technique can:

- Detect small surface cracks, cavities, ID/ OD pitting and corrosions as small as 0.5mm
- Inspect 700 6-metre tubes per day
- Detect defects through several layers, including non-conductive surface coatings and support plates, without any interference from planar defects
- Effective on objects with physically complex geometries.



OUR ADVANCE NDT SERVICES



MAGNETIC FLUX LEAKAGE (MFL)



The ideal solution for ferromagnetic tubes such as aluminium-finned carbon steel tubes commonly found in air coolers and heat exchangers. This method allows the magnetic field to be completely unaffected by the presence of such fins. Our MFL technique is designed to:

- Accurately detect significant longitudinally or transversely oriented anomalies such as pits, scabs, seams, cracks and improper welds
- Have an inspection speed of up to 1 m/s
- Offer rapid results and high sensitivity to pitting
- Have a signal output that is sensitive to speed variation.

OUR ADVANCE NDT SERVICES



ACOUSTIC PULSE REFLECTOMETRY (APR)

Introducing the latest advancement in the field of NDT methods, APR uses acoustic waves to evaluate the integrity of tubes in heat exchangers, boilers, chillers, reactors, and more. Our APR technology, Dolphin G3™ and APRIS enable ultra-fast, accurate and extensive assessment of your equipment, regardless of shape or material.

- Inspect tubes up to 4 inches in diameter
- Tube size ID from 8 to 104 mm
- An inspection speed 10-20 times faster than its contenders
- Conquers many limitations of conventional NDT techniques
- Increases inspection cycle efficiency and operational cost savings.



OUR ADVANCE NDT SERVICES

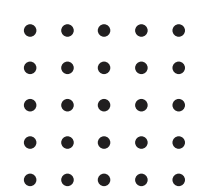


INTERNAL ROTATING INSPECTION SYSTEM (IRIS)

The perfect alternative for when electromagnetic testing is not permitted. IRIS is an ultrasonic method typically used in boilers, shell-and-tube heat exchangers, and fin-fan heat exchanger tubes.

- Adaptable to all types of materials
- Displays impressive accuracy and sensitivity
- Obtain 3D images complete with detailed data, including the profile and depth of defects
- Produces easy-to-digest data interpretation compared to other NDT techniques.

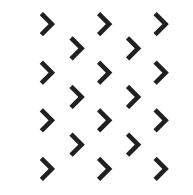




OUR **ADVANCE** NDT SERVICES



BORESCOPIES: REMOTE VISUAL INSPECTION (RVI)



RVI employs remotely operated cameras and robotic crawlers to inspect the integrity of components and infrastructure in areas with limited access for direct human intervention. With our state-of-the-art borescopes, we can help you:

- Detect localized corrosion and erosion easily
- Capture real-time views and images from inside voids such as tubes, pipes, heat exchangers, rotating machinery, and enclosed structures.



OUR ADVANCE NDT SERVICES



SURFACE EDDY CURRENT

We have successfully conducted numerous Surface Eddy Current services to several large corporations across the nation. Our experts have perfected this method for surface weld joint crack and parent material crack inspections in conductive materials. It is relied on for the inspections of roller coaster rides, cranes, gears, shafts, and more. Our work includes for industries such as

- Power Industry
- Pharmaceutical Industry
- Petrochemical
- Leisure Parks.



OUR ADVANCE NDT SERVICES



EDDY CURRENT ARRAY (ECA)



We take it one step further with an advanced version of ECT – the ECA method. While its concept remains the same, ECA can cover larger areas in a single pass than traditional ECT. Paired with our bobbin probe technology, ECA has a substantially faster inspection speed compared to ECT.

- Higher efficiency and faster performance
- More sensitive to circumferential cracking under tube sheets
- Provide more data on the circumferential extent of any defects
- Better accuracy for gradual (absolute) wall loss
- Can better distinguish defect signal and tube sheet signal.

OUR ADVANCE NDT SERVICES



ACOUSTIC EMISSION VALLEN SYSTEM (AE)



AE is the phenomenon of radiation of acoustic (elastic) waves in solids that occurs when a material undergoes irreversible changes in its internal structure, for example as a result of crack formation or plastic deformation due to aging, temperature gradients, or external mechanical forces. The range of applications for AE such as:

- inspection of pressure vessels
- testing of flat bottom storage tanks (above ground storage tanks)
- leakage testing of pipelines and valves.



OUR BASIC NDT SERVICES



MAGNETIC PARTICLE INSPECTION (MPI)



MPI used to detect surface and subsurface discontinuities in ferromagnetic materials, including iron, nickel, cobalt, and alloys made from these materials. This technique involves passing a high-amperage, low-voltage current through the part to establish a magnetic field. MPI is a reliable and efficient method for

- detecting a range of discontinuities, including cracks, porosity, and inclusions.
- relatively cost-effective metal testing method, making it a preferred inspection choice for products in many industries, including automotive parts, machinery, aircraft components, steel and iron casting, and more.

OUR BASIC NDT SERVICES



DYE PENETRANT INSPECTION (DPI)



DPI also commonly referred as Liquid Penetrant Inspection (LPI), method either uses a dye or liquid to a surface in order to identify any potential defects in the subjected item, such as airline cracks and micro-porosity to other forms of discontinuities.

- Dye penetrant inspection can be applied to both ferrous and non-ferrous materials and all non-porous materials (metals, plastics or ceramics).



OUR BASIC NDT SERVICES



ULTRASONIC THICKNESS MEASUREMENT (UTTM)



UTTM is a non-destructive testing method used to inspect the metal thickness of ship hulls, piping and structural steel. Ultrasonic thickness measurement data gives customers the necessary information required to determine if the tested item has the adequate metal thickness for which it was designed. UTM method's advantage:

- Measurement can be done from one side of the sample material.
- Gives accurate measurements with readings as low as 0.01mm
- Portable and easy to use and allows more measurements to be done within a short time
- Have a wide measurement range.

OUR CLIENTS

Our clients' successes are what drives us to produce cutting-edge solutions. We are proud of the work we have done for them and strive to assist more companies in securing their operations' safety and productivity.



CLIENT TESTIMONIALS

“

“Fast response on email and WhatsApp.”

- Ku Mohamad Syazwan,
Coordinator of ROSEN Group

”

“

“Good job on the performance for AROMA TAR 2019. Keep it up!”

-Mohd Soleham, Manager
(Area Inspection Lead) of Site
Engineering & Technical Services

”

“

“Very disciplined.”

- Asrul Sanny Yem, Manager
(Area Inspection Lead) of
Maintenance & Engineering

”

“

Insmech Engineering’s staff members are very supportive and friendly.”

- Norzaini Abd Rahim, Assist.
Project Manager of Danamin (M)
Sdn Bhd

”

“

“Easy going, full of integrity and full of knowledge.”

- Al Zubir Al Zahri, NDT Technician

”

“

“Keep up the good work!”

- Ahmad Razlin, Project
Coordination Manager of MJ
Inspection Consultancy

”





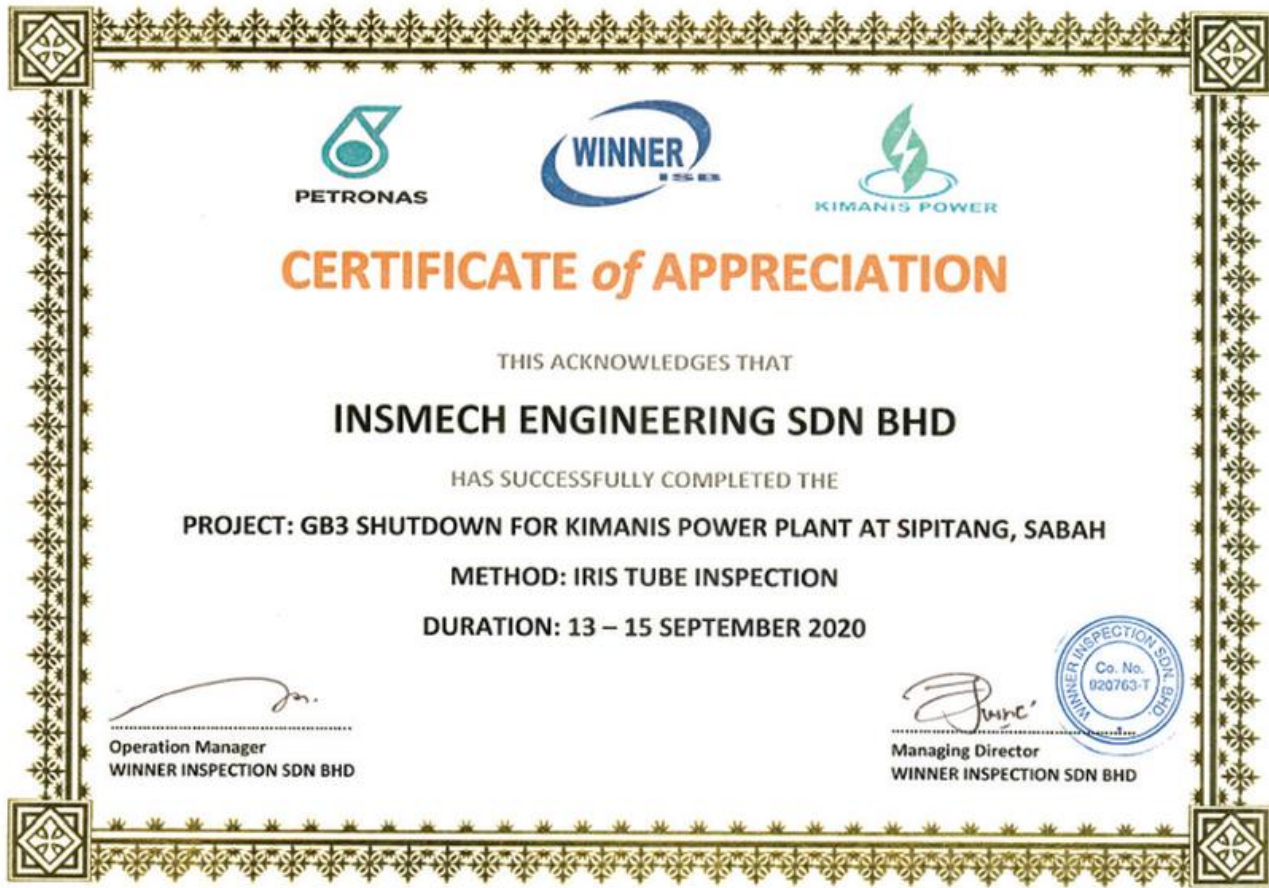
OUR PROJECTS

Insmech Engineering works collaboratively with esteemed partners in Malaysia and neighbouring countries such as Thailand, Myanmar, Philippines, Brunei and Indonesia, as well as Taiwan, New Zealand and Turkmenistan. We lend our expertise, experience and equipment to help develop new capabilities and technology.

- Petronas Penapisan (Melaka) Sdn Bhd
- Petronas Gas GPP 5 & 6 Santong Paka Terengganu
- Petronas Chemicals Ethylene Polyethylene
- BP Petronas Acetyls Sdn Bhd
- Petlin (M) Sdn Bhd
- Petronas Chemicals MTBE Sdn Bhd
- Petronas Chemicals Methanol Sdn Bhd
- Samur Sipitang Sabah Ammonia and Urea
- Sabah Oil and Gas Terminal
- BASF Petronas Chemicals Sdn Bhd
- Lotte Chemical Titan (M) Sdn Bhd
- Hengyuan Refining Company Berhad, Port Dickson
- Emery Oleochemicals (M) Sdn Bhd
- KL-Kepong Oleomas Sdn Bhd
- Semarang Indonesia
- Petronas Penapisan (Terengganu) Sdn Bhd
- Optimal Chemicals (Malaysia) Sdn Bhd
- Gas District Cooling KLCC Plant (DCC2)
- Amalgamated Metal Corporation Sdn Bhd (AMC)
- RP Chemicals Malaysia Sdn Bhd



CERTIFICATES



GALLERY



CONTACT US



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Toman Midah, 56000 Kuala
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