



REAL-TIME INSTRUMENTATION & MONITORING FOR CONSTRUCTION IN MALAYSIA





INTRODUCTION

P CON Instrumentation Sdn. Bhd. is a company that providing instrumentation and monitoring services in Malaysia mainly for:

- Developer, Main & Sub-contractors;
- Building or infrastructure maintenance teams;

Rooted from **P-CON Group** which has been in the building assessments and survey business for more than 20 years in Malaysia and Singapore, **P Con Instrumentation Sdn. Bhd.** was spun out to further serve our clients to perform monitoring services in and around construction sites.

Being co-spearheaded with our Dr. Lim Chin Hong, researcher and entrepreneur in construction monitoring services and sensors for more than 6 years in Malaysia, he and his teams including our engineer, Ir. Teng, have deployed REAL-TIME geotechnical monitoring sensors for MRT & LRT system in Malaysia for more than 4 years.

Our Ir Teng, an all-rounder experienced in Civil, Infrastructure and Geotechnical Engineering with over 37 years has been involved in numerous local and international projects in United Kingdom, Singapore, Hong Kong, Australia, Indonesia as well as in Malaysia. His broad work encompasses as follow:

- Project Management;
- Soil Investigation Works
- Geo-Environmental Investigation;
- Court Expert Witness for Structural & Geotechnical Failure;
- Consultancy In Geotechnical Works & Design;
- Road Alignment & Pavement Design;
- Structural & Geotechnical Assessment;
- Remediation Design;
- Advisory role in Structure & Geotechnical Movements Monitoring;
- Technical Report Writing & Rehabilitation (Forensic Investigation);
- Earthworks & Drainage Construction Monitoring for Housing Development;
- Mining site particularly to Water Retaining Dam & Tailing Storage Facility (TSF/ Tailings Dam);
- Serving as a Technical Consultant for an NGO in Malaysia;
- A facilitator with The Institution Of Engineers Malaysia Training for Engineer's Code Of Ethics/ Regulations Course.



OUR SERVICES & EXPERTISE



Leveraging from the Internet-of-Things (IoT) infrastructure, we have integrated 4G-enabled communication units into our device and equipment. This ensures that data is continuously collected and transmitted seamlessly to computers or smartphones via our robust Cloud architecture, enabling comprehensive REAL-TIME monitoring applications.

These real-time monitoring capabilities are crucial not only for providing accurate and timely assessments but also for acting as an early warning system. By detecting abnormalities from sensors promptly, we help prevent potential issues before they escalate.

With these capabilities, we deliver solutions that are responsive, dependable, and provide peace of mind for our clients, ensuring every project is monitored with the utmost precision and care.

Our monitoring services, designed to deliver consistent and dependable results, include:-



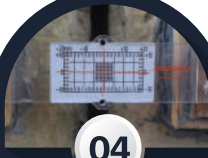
01
MONITORING Vibration
Utilizing 3-directional geophones for precise detection



02
MONITORING Noise
Equipped with sound level meter featuring 4G-enabled data logger



03
MONITORING Tilt
Featuring tiltmeters with 4G-enabled data logger & high precision low noise MEMS inclinometers



04
MONITORING Crack
Implementing Tell-Tale precision gauges for exact measurements



05
MONITORING Settlement & Movement
Using optical level equipped with Internet-enabled high resolution cameras & micro processing unit for precise tracking



06
MONITORING Slope
Deploying drone equipped with LIDAR unit for comprehensive terrace analysis



THE TEAM



Sr. Yap Yeong Chwan

Director

- B.Sc. (Hons) Building Surveying
- MRISM, MRICS, MCABE, ICIOB
- Registered Building Surveyor, Malaysia
- Chartered Building Surveyor
- Chartered Building Engineer

Dr. Chin Hong Lim

Founder & CEO

- Ph.D In Mechanical Engineering
- Specialized Structural Vibration Monitoring & Instrumentation



Dr. Huei Ee Yap

Co-Founder & CTO

- Ph.D In Mechatronics Engineering
- Founder of LP Research Pte. Ltd, Tokyo
- Specialized in Hardware & IoT

Wen Loong Lim

Co-Founder & PM

- Mechanical Engineer, 8 Years,
- Experienced in Product Design, Research, Development, QA



Associate Partner:

Ir. Teng Soon Ng (Eddie)

- B. Sc. (Hons) Civil Eng. University Of Aberdeen, Scotland, UK
- Post Graduate Diploma In Geotechnics
- Registered Professional Civil Engineer
- Engineers Australia (Registered CPEng, NPER, ASEAN & APEC Engineer)
- Board of Engineers Malaysia (Registered PE)

VISION

Digitalize automate all the instrumentation monitoring works to provide more effective solution than the existing practices.

MISSION

To provide more resource-effective monitoring services to construction site and existing buildings.

WHY US?

- Trained personnel to perform design & planning, deployment, and on-site data collection in REAL-TIME monitoring;
- Our sensors were optimized to be able to operate continuously without any human intervention for months on harsh outdoor environment
- Our sensors able to be controlled remotely via 4G connection to provide the measurement data with the least lag time.
- Powered with portable battery, our sensors continuously monitor that would last a month.



P CON Instrumentation Sdn. Bhd.

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REAL-TIME Monitoring to save time, money & project



TRACK RECORD

No	Client	Project Title	Description of Works	Commencement	Completion
KUALA LUMPUR					
1.	Access Benefit Sdn. Bhd.	Cadangan Pembangunan (Kediaman) 1 Blok Pangsapuri Servis 32 Tingkat (306 Unit) Di Atas Lot 20007, Seksyen 91, Jalan Cheras, Bandar Kuala Lumpur, Wilayah Persekutuan, Kuala Lumpur Untuk Tetuan: Warisan Tradisi Sdn. Bhd.	Vibrometer: 3 nos. Noise sensor: 3 nos. Settlement marker: 15 nos.	Feb 2025	On-going
2.	CNQC Engineering & Construction (Malaysia) Sdn. Bhd.	Cadangan Pembangunan Pangsapuri 31 Tingkat (Parcel A1) Di Atas Pt 50162, Jalan Jalil Perkasa 7, Mukim Petaling, Wilayah Persekutuan Kuala Lumpur Untuk Tentuan Berjaya Hartanah Berhad.	Noise sensor: 2 nos. Tiltmeter: 4 nos.	Dec 2024	On-going
3.	QSE Construction Sdn Bhd	Paip Ampang - Pakej 15 (2): Kerja-Kerja Penyambungan Ke Sistem Sediaada Dan Memasang Paip Jenis Keluli Lembut (Mild Steel) Bergaris Pusat Nominal 1400mm Dari Kolam Air Ampang Ke Sistem Sediaada Di Jalan Bukit Belacan Dan Taman Shamelin Serta Menyiapkan, Mengujiterima Dan Mentauliah Kerja-Kerja Sivil Dan Yang Berkaitan Di Daerah Hulu Langat, Selangor Darul Ehsan Dan Wilayah Persekutuan Kuala Lumpur.	Settlement marker: 13 nos.	May 2023	On-going
4.	Powerfuel Petrol Sdn Bhd	Cadangan Meroboh Sebuah Medan Selera Sedia Ada Dan Membina Sebuah Stesen Minyak Di Atas Lot 54374, Jalan Metro Perdana Timur 1, Mukim Batu, Daerah Kuala Lumpur, Wilayah Persekutuan Kuala Lumpur Untuk Tetuan Powerfuel Petrol Sdn. Bhd.	Vibrometer: 2 nos. Settlement markers: 5 nos. <i>(Installed at elevated MRT piers)</i>	May 2023	Mar 2024
5.	Central Geo Sdn. Bhd.	Cadangan Meroboh 6 Blok Bangunan 4 Tingkat Hingga 8 Tingkat Sedia Ada Dan Membina Semula 3 Blok Condominium 42 Tingkat Dan 26 Tingkat (462 Unit) Di Atas Lot 263, Seksyen 89A, Jalan Ampang Hilir, Bandar Kuala Lumpur, Wilayah Persekutuan Untuk Tetuan Paramount Property (Cityview) Sdn Bhd	Vibrometer: 5 nos. Noise sensor: 5 nos.	Aug 2022	Mar 2024
6.	Asia Pacific Engineering Consortium Sdn. Bhd.	Real-time vibration monitoring at house No. 64, Jalan Balau, Bukit Damansara, Mukim Kuala Lumpur, Wilayah Persekutuan.	Vibrometer: 1 no.	Mar 2022	Mar 2022
7.	Pengurusan Perbadanan Kondominium Seri Duta 1	Real-time slope/ structures movement monitoring at Seri Duta 1 Condominium.	Real-Time Settlement/ movement Sensor: 2 nos.	Jan 2022	Mar 2022
8.	Pasukhas Construction Sdn. Bhd.	Cadangan Pembangunan Satu Blok Bangunan Perdagangan Sementara 3 Tingkat Di Atas Lot PT 550 (PT 431) & Lot 551 (PT 432), Jalan Tun Razak, Seksyen 90, Bandar Kuala Lumpur, Wilayah Persekutuan Kuala Lumpur Untuk Tetuan Famous Ambience Sdn. Bhd.	Noise sensor: 1 no.	Mar 2021	Mar 2021

No	Client	Project Title	Description of Works	Commencement	Completion
9.	Wira Syukur (M) Sdn. Bhd.	Cadangan Pembangunan Bercampur 2,499 Unit Rumahwip (47 Tingkat) Yang Mengandungi:- Block A, D, E (37 Tingkat) - Block B, C (39 Tingkat) - Kemudahan Penduduk (1 Tingkat) - Lobi, 14 Unit Kedai Dan Podium Tempat Letak Kereta (7 Tingkat) Beserta 2 Aras Sub Basemen Di Atas Lot 8947 & 8948, Jalan Gombak, Mukim Setapak, Wilayah Persekutuan Kuala Lumpur For Tetuan Hektar Aneka Sdn. Bhd.	Building settlement Marker: 40 nos. Automatic Settlement/ movement Sensor: 38 nos.	Aug 2020	Aug 2021
10.	Mr. John Nathan	Structural Movement Monitoring of bungalow No. 10, Persiaran Negeri Sembilan, Federal Hill, 50480 Kuala Lumpur.	Automatic Settlement/ movement Sensor: 4 nos.	Jan 2020	Apr 2020
11.	China Railway17th Bureau Group (M) Sdn. Bhd.	Sungai Besi Station, LRT Station, Project Mass Rapid Transit Laluan 2: Sg. Buloh-Serdang-Putrajaya (SSP).	Automatic Settlement/ movement Sensor: 4 nos. Vibrometer: 5 nos.	Dec 2019	Oct 2020
SELANGOR					
12.	Nilai Sejahtera (M) Sdn Bhd	Proposed Sewer Network Rectification Work for Indah Water Konsortium Sdn Bhd (Asset No. PTG239) at Jalan SS15/4 & Jalan SS15/8, Subang Jaya, Selangor Darul Ehsan.	Settlement marker: 4 nos.	Mar 2024	On-going
13.	MGB Berhad	Cadangan Membina 2 Blok 1448 Unit Pangsapuri Rumah Selangorku Idaman MBI 23 Tingkat Di Atas Lot 120760, Cybersouth, Mukim Dengkil, Daerah Sepang, Selangor Darul Ehsan Untuk Tetuan Idaman Living Sdn. Bhd.	Vibrometer: 2 nos. Noise: 2 nos.	Aug 2022	Feb 2023
14.	Nilai Sejahtera (M) Sdn. Bhd.	Proposed Sewer Rehabilitation Work at Indah Water Konsortium Sdn Bhd's Sewage Treatment Plant (Asset No. KXG491) Located at Teras Industri Ringan, Port Klang, Selangor Darul Ehsan	Settlement markers: 6 nos.	July 2022	Feb 2023
15.	Hon Chuan Malaysia Sdn. Bhd.	Real-time vibration monitoring at Cocoland Industry Sdn. Bhd., Lot 88, Jalan Industri 3/3, Rawang Integrated Industrial Park, 48000 Rawang, Selangor Darul Ehsan.	Vibrometer: 1 no.	Apr 2022	Apr 2022
16.	Jallcon (M) Sdn. Bhd.	Proposed Construction And Completion Of 194 Units Double Storey Link House And 1 Unit TNB Sub-Station PE9 With Infrastructure Works On Part Lot PT 54720 To PT 54913 And PT 54916, Phase EG3b, Elmina West, Section U17, 40160 Shah Alam, Selangor Darul Ehsan.	Building settlement marker: 80 nos.	Dec 2021	Oct 2022

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17.	MITC Engineering Sdn. Bhd.	Cadangan Pembangunan Bagi Perumahan Strata Bertanah Fasa 3B Yang Terdiri Daripada: Parcel 1: 1. 32 Unit Rumah Bandar Strata 2 Tingkat (22' X 75') 2. 1 Unit Pusat Komuniti 3. 1 Unit Pondok Pengawal 4. 2 Unit Pencawang Elektrik (PE) Parcel 2: 1. 388 Unit Rumah Teres Strata 2 Tingkat (20'x60') 2. 1 Unit Pencawang Elektrik (PE) Parcel 3: 1. 342 Unit Rumah Teres Strata 1 Tingkat (20'x70") 2. 2 Unit Pencawang Elektrik (PE) Di Atas Lot PT 66863, Tanah Simpanan Melayu Dengkil, Mukim Dengkil, Daerah Sepang Selangor Darul Ehsan Secara Usahasama Dengan Permodalan Negeri Selangor Berhad Untuk Tetuan Edisi Megah Sdn. Bhd.	Vibrometer: 1 no. Noise sensor: 1 no.	Nov 2020	May 2022
JOHOR					
18.	Bridge Data Centres Malaysia Sdn Bhd	Instrumentation Monitoring Works At Ptd 32674, Jalan Digital 7, Kawasan Perindustrian Kulai (Kidex), Mukim Bukit Batu, Daerah Kulai, Johor Darul Takzim	Settlement marker: 66 nos.	Dec 2024	On-going
19.	BPX Sdn Bhd	Cadangan Tambahan Sebuah Pusat Data (Data Centre) Ke Atas Pusat Data Sedia Ada Di Atas Sebahagian PTD 32639, Jalan Digital Utama, Kawasan Perindustrian Kulai (Kidex), Mukim Bukit Batu, Daerah Kulai, Johor Darul Takzim Untuk Princeton Digital Group Malaysia Beta Sdn. Bhd.	Settlement marker: 18 nos. Tiltmeter: 10 nos. Real-Time Vibration Sensor: 3 nos.	Nov 2024	On-going
20.	CAG Majubina Sdn Bhd	Meroboh Dan Membina Semula Jeti Markas Operasi Pasukan Polis Marin Wilayah 2, Muar Johor.	Settlement marker: 3 nos. Tiltmeter: 2 nos.	Oct 2024	On-going
21.	Pamir Construction Sdn Bhd	Cadangan Pembangunan Berstrata 2 Blok Pangsapuri Perkhidmatan 23 Tingkat (460 Unit), Di Atas Lot 173251 (PTD 187010) dan Lot 173252 (PTD 187011), Taman Ekoflora, Mukim Tebrau, Daerah Johor Bahru, Johor Darul Ta'zim Untuk Tetuan Eco Summer Sdn. Bhd.	Vibrometer: 4 nos.	May 2024	May 2024
22.	Hwa Hin Sdn Bhd	Cadangan Perindustrian Sederhana Yang Mengandungi: I) 1 Blok Bangunan Kilang 3 Tingkat II) 1 Blok Asrama Pekerja 4 Tingkat Beserta Kemudahan III) 1 Unit Pondok Pengawal IV) 1 Unit Kebuk Sampah V) 1 Unit Pencawang Elektrik (11KV) VI) 1 Unit Rumah Pam Di Atas Sebahagian PTD205049 Dan Sebahagian PTD205050, Senai Airport City (SAC), Mukim Tebrau, Daerah Johor Bahru, Johor Darul Ta'zim, Untuk Tetuan: Tetuan Ablecom Technology Sdn. Bhd.	Vibrometer: 1 no.	Sep 2023	Oct 2023

No	Client	Project Title	Description of Works	Commencement	Completion
23.	TCG Majujaya Bina Sdn Bhd	Cadangan Pebangunan 3 Blok Perdagangan Berstrata 35 Tingkat (2,432 Unit) Di Atas Lot 3081 (HS (D) 10974), Jalan Yahya Awal, Bandar Johor Bahru, Johor Darul Takzim Untuk Tetuan Solusi Kelana Sdn. Bhd.	Building settlement marker: 9 nos.	Apr 2022	Mar 2023
24.	Esstar Vision Sdn. Bhd.	Permohonan Pelan Bangunan Di Bawah Akta 133 Bagi Cadangan Tambahan 3 Unit Gudang 1 Tingkat Ke Atas Kilang Pembinaan Loji Pemprosesan Gula Sediada Di Atas Lot PTD4966 Kompleks Perindustrian Tanjung Langsat, Mukim Sungai Tiram, Daerah Johor Bahru, Johor Darul Takzim Bagi Tetuan MSM Sugar Refinery (Johor) Sdn. Bhd.	Ground settlement marker: 12 nos. Crack Monitor: 5 nos.	Dec 2021	Apr 2022
25.	Syarikat Pembinaan Yeoh Tiong Lay Sdn. Bhd.	The Design, Construction, Supply, Installation, Completion, Testing, Commissioning And Maintenance Of The Electrified Double Track From Gemas To Johor Bahru (Section 5 – Kulai-Kempas Baru) – Retaining walls	Tiltmeter: 2 nos. Crack tell-tale: 4 nos.	Jan 2021	Dec 2022
26.	Chuan Luck Piling & Construction Sdn. Bhd.	Biocon Piling Works For Package C02b At Gelang Patah, Johor.	Ground settlement marker: 1 no. Vibrometer: 3 nos. Noise sensor: 1 no.	Jan 2021	Feb 2021
27.	Syarikat Pembinaan Yeoh Tiong Lay Sdn. Bhd.	The Design, Construction, Supply, Installation, Completion, Testing, Commissioning And Maintenance Of The Electrified Double Track From Gemas To Johor Bahru (Section 5 – Kulai-Kempas Baru) – Houses at Kulai	Building settlement marker: 5 nos. Vibrometer: 1 no. Tiltmeter: 1 no.	Mar 2020	Jun 2020
28.	Advancecon Infra Sdn. Bhd.	Privatization Of Lebuhraya Pesisiran Pantai Barat (Taiping - Banting) The Construction And Completion Of Civil Works For Section 7 – Assam Jawa Interchange - Tanjung Karang Interchange, Part 1 (CH. 34500m – CH. 54900m) For Messrs West Coast Expressway Sdn. Bhd.	Vibrometer: 1 no.	Nov 2019	Nov 2019
PULAU PINANG					
29.	C.E.M.B. Engineering Sdn. Bhd.	Osram PEN1 Water Tank, Material Plantform & Related Works.	Real-Time Vibration Sensor: 2 nos.	Nov 2024	Jan 2025
30.	Bank of China Malaysia Berhad	No. 9, Lebuhr Pantai, 10300 Georgetown, Pulau Penang, Malaysia (Bank of China (Malaysia) Berhad).	Settlement marker: 5 nos. Tiltmeter: 5 nos.	May 2023	On-going

No	Client	Project Title	Description of Works	Commencement	Completion
NEGERI SEMBILAN					
31.	UBBIM Resources Sdn Bhd	EPIC Building, Cenviro Sdn. Bhd., Ladang Tanah Merah A3 Division, Bukit Pelanduk, 71960 Port Dickson, Negeri Sembilan.	Settlement marker: 8 nos.	Dec 2022	Mar 2023
MELAKA					
32.	Belykova Corporation Sdn. Bhd.	Menaiktaraf Sistem Saliran Bagi Mengatasi Masalah Banjir Kilat Di Kawasan Bandaraya Melaka Bersejarah Fasa 2 (Pakej 2A).	Vibrometer: 2 nos.	Nov 2020	Jan 2021
PERAK					
33.	Intellective Resources Sdn. Bhd.	Cadangan Pembaikan Cerun Dan Kerja-Kerja Berkaitan Di Kolej Matrikulasi Gopeng, Perak.	Real-Time Ground Settlement Sensor: 4 nos.	Sep 2020	Aug 2021