

Professional Engineers Board Singapore

**Annual Report
For Financial Year
2023**



professional engineers board singapore
52 Jurong Gateway Road #07-03 Singapore 608550

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■ PRESIDENT AND MEMBERS OF THE BOARD

President



Er. Lim Peng Hong

Members of the Board



From left to right

**Er. Chan Ewe Jin
Er. Chan Jacqueline
(From January 2020 to
December 2023)
Er. Chua Tong Seng**



From left to right

**Er. Ho See Fong
(From January 2024)
Er. Jee Yi Yng
Er. Kng Meng Hwee**



From left to right

**Er. Dr Lee Jim Yang
Er. Lee Zi Du
(From January 2024)
Er. Dr Liew Jat Yuen,
Richard**

Members of the Board (Cont'd)



From left to right

Er. Ng Beow Suan
(From January 2024)

Er. Ng Yek Meng
*(From January 2020 to
December 2023)*

Er. Pong Mew Lan, Marina
(From January 2024)



From left to right

Er. Sivakumaran Murugesu
*(From January 2020 to
December 2023)*

Er. Teo Yann
Er. Thanabal s/o Kaliannan



From left to right

**Er. Dr Wong Liang Heng,
Johnny**

**Er. Yogeeswaran s/o
Sivasithamparam**
*(From October 2022 to
December 2023)*

Ar. Khairudin SAHAROM

Registrar



Er. Foo Siang Jeok

■ MISSION, KEY OBJECTIVES AND FUNCTIONS OF THE BOARD

Mission

To safeguard life, property, and welfare of the public by setting and maintaining high standards for registering professional engineers, and by regulating and advancing the practice of professional engineering.

Key Objectives

- To maintain an internationally acceptable standard of assessment which emphasizes quality academic education, examination, and practical experience that ensures only competent individuals are accepted for registration as professional engineers.
- To maintain a process that ensures professional engineers demonstrate a high standard of professional development, and conduct and ethics that meet the expectations of clients and consumers.
- To develop responsible self-governance of the profession through judicious administration of the Act and Rules on professional conduct and ethics.
- To coordinate and facilitate cross-border mobility of qualified professional engineers.

Functions

- To keep and maintain a register of professional engineers, a register of practitioners and a register of licensees.
- To hold or arrange for the holding of such examinations as the Board considers necessary for the purpose of enabling persons to qualify for registration under the Professional Engineers Act.
- To approve or reject applications for registration under the Professional Engineers Act or to approve any such applications subject to such restrictions as it may think fit to impose.
- To establish and maintain standards of professional conduct and ethics of the engineering profession.
- To promote learning and education in connection with engineering, either alone or in conjunction with any other professional body.
- To hear and determine disputes relating to professional conduct or ethics of professional engineers or to appoint a committee to hear and determine those disputes.
- To license corporations, partnerships and limited liability partnerships which supply professional engineering services relating to any of the prescribed branches of professional engineering work in Singapore.

■ REGISTRATION AND LICENSING

Registration of Professional Engineers

In FY2023, the Board conducted 34 professional interview sessions for 138 applicants while a total of 103 candidates were registered as professional engineers during the year. Table 1 shows the number of new professional engineers registered in the last 5 years.

Table 1: Number of Newly-Registered Professional Engineers by FY2023

| Branch of Engineering | No. of Professional Engineers Registered | | | | |
|-----------------------|--|-----------|-----------|-----------|------------|
| | 2019 | 2020 | 2021 | 2022 | 2023 |
| Civil | 60 | 40 | 36 | 25 | 38 |
| Electrical | 26 | 11 | 32 | 31 | 33 |
| Mechanical | 16 | 19 | 15 | 11 | 31 |
| Chemical | 1 | 1 | 0 | 1 | 1 |
| TOTAL | 103 | 71 | 83 | 68 | 103 |

As of 31 March 2024, there was a total of 4496 professional engineers on the register of professional engineers and a total of 2570 (57.2%) professional engineers on the annual register of practitioners. Table 2 shows the breakdown of the number of registered professional engineers and practitioners in the 4 main branches of engineering (namely, civil, chemical, electrical and mechanical).

Table 2: Number of Registered Professional Engineers as at 31 March 2024

| Branch of Engineering | Total No. of Registered Professional Engineers | | No. of Practitioners (Professional Engineers in Each Branch with Practicing Certificates) | |
|-----------------------|--|-------------|---|-------------|
| | Number | Percent (%) | Number | Percent (%) |
| Civil & Structural | 2183 | 48.5% | 1357 | 52.8% |
| Electrical | 1052 | 23.4% | 638 | 24.8% |
| Mechanical | 1019 | 22.7% | 525 | 20.4% |
| Chemical | 163 | 3.6% | 49 | 1.9% |
| Others ¹ | 79 | 1.8% | 1 | 0.1% |
| TOTAL | 4496 | 100% | 2570 | 100% |

¹ Others include Aeronautical, Electronic, Industrial, Information Technology, Manufacturing, Marine, Naval Architecture and Production.

Registration of Specialist Professional Engineers

As at 31 March 2024, there was a total of 477 professional engineers on the register of specialist professional engineers and a total of 393 (82.4%) of them had practicing certificates. Table 3 shows the breakdown of the number of registered specialist professional engineers.

Table 3: Number of Registered Specialist Professional Engineers as at 31 March 2024

| Specialised Branch of Engineering | Total No. of Registered Specialist Professional Engineers | | No. of Specialist Professional Engineers in Each Branch with Practicing Certificates | |
|-----------------------------------|---|-------------|--|-------------|
| | Number | Percent (%) | Number | Percent (%) |
| Geotechnical | 131 | 27.4% | 113 | 28.8% |
| Amusement Ride | 19 | 4% | 12 | 3.1% |
| Lift and escalator | 114 | 23.9% | 100 | 25.4% |
| Crane | 63 | 13.2% | 47 | 11.9% |
| Access Platform | 69 | 14.5% | 55 | 14% |
| Pressure Vessel | 51 | 10.7% | 38 | 9.7% |
| Protective Security | 14 | 2.9% | 13 | 3.3% |
| Tunnelling | 16 | 3.4% | 15 | 3.8% |
| TOTAL | 477 | 100% | 393 | 100% |

Licensing of Corporations and Partnerships

As of 31 March 2024, there was a total of 274 licensed corporations, partnerships and limited liability partnerships on the Board's register of licensees. Table 4 shows the breakdown of the licensees.

Table 4: Number of Licensees as at 31 March 2024

| Type of Corporations/Partnerships | No. of licensees |
|---|------------------|
| Limited corporations | 252 |
| Unlimited corporations | 3 |
| Multi-discipline/Limited liability partnerships | 19 |
| TOTAL | 274 |

■ DISCIPLINARY INQUIRIES

In FY2023, Investigation Committees appointed by the Board completed inquiries for 3 complaint cases against professional engineers. Following the inquiries, 2 of the cases were referred to Disciplinary Committees while a warning letter was issued to the remaining PE.

Disciplinary Committees appointed by the Board completed 3 formal inquiries in FY2023. At completion of the inquiries, all 3 professional engineers were ordered to pay financial penalties, with one of them also given a censure. The financial penalties ordered ranged from \$2,500 - \$12,000.

■ ACTIVITIES OF THE BOARD

Board Meetings

The Board held a total of 11 meetings in FY2023.

Professional Engineers Registration Examinations

The Examination Committee of the Board, chaired by Board member Er. Dr Liew Jat Yuen, Richard, held 3 meetings in FY2023 and oversaw the conduct of the Practice of Professional Engineering Examination (PPE) and the Fundamentals of Engineering Examination (FEE). A total of 129 undergraduates/recent graduates sat for the Fundamentals of Engineering Examination conducted by the universities.

Table 5: Results of FEE 2023

| Branch of Engineering | FEE 2023 | | |
|-----------------------|-------------------|---------------|--------------|
| | No. of Candidates | No. of Passes | Pass Rate |
| Chemical | 5 | 1 | 20.0% |
| Civil | 342 | 140 | 40.9% |
| Electrical | 182 | 64 | 35.2% |
| Mechanical | 110 | 30 | 27.3% |
| Overall | 639 | 235 | 36.8% |

Table 6: Results of PPE 2023

| Branch of Engineering | PPE 2023 | | |
|-----------------------|-------------------|---------------|--------------|
| | No. of Candidates | No. of Passes | Pass Rate |
| Chemical | 2 | 1 | 50.0% |
| Civil | 319 | 143 | 44.8% |
| Electrical | 129 | 66 | 51.2% |
| Mechanical | 98 | 40 | 40.8% |
| Overall | 548 | 250 | 45.6% |

ASEAN Mutual Recognition Arrangement on Engineering Services

The Board had been involved in the implementation of the ASEAN Mutual Recognition Arrangement on Engineering Services. In this regard, the ASEAN Chartered Professional Engineer (ACPE) Monitoring Committee Singapore, which had been authorised by the Board, continued to process applications submitted by professional engineers for registration as ACPEs. For FY2023, 20 applications for registration as ACPEs were approved. As at 31 March 2024 the number of ACPEs from Singapore on the ACPE Register is 344. PEB had also authorised 1 ACPE (from Malaysia) as Registered Foreign Professional Engineer (RFPE).

PEB Day of Dedication 2023



Congratulations to our newly registered Professional Engineers who received their registration certificate at the PEB Day of Dedication on 9 Nov 2023

At the annual Day of Dedication (DOD) on 9 November 2023, we proudly introduced 98 newly registered PEs across various engineering branches, including Chemical, Civil, Electrical and Mechanical Engineering. Over 270 PEs and guests attended the ceremony, where the PEs pledged to dedicate their service to society and uphold high standards of practice in professional engineering. Joining them as Guest of Honour was Ms Indranee Rajah, Minister in the Prime Minister's Office and Second Minister for Finance and National Development.

We also welcome 15 new Specialist PEs specialising in Amusement Ride engineering, Crane engineering, Geotechnical engineering, Lift and Escalator engineering and Tunnelling engineering, and 19 new ASEAN Chartered PEs (ACPEs).

This year's theme, "RESILIENCE - the foundation for Sustainable Growth", focus on designing and building resilience into our built environment and infrastructure to achieve sustainable growth. In her speech, Minister Indranee Rajah outlined the importance of resilience engineering to enable us to overcome the adverse effects of climate change, and to thrive in the face of these disruptive changes.

Honouring PEB Innovative Professional Engineers

Two Professional Engineers, Er. Wong Seng and Er. Ng Choon Yeang, were each presented with the Innovative Professional Engineer Award in recognition of their outstanding achievements and creative use of transformative technologies in the engineering profession.



Er. Wong Seng receiving the Innovative Professional Engineer Award from Minister Indranee Rajah

Er. Wong Seng is being recognised for his pioneering innovation in using a composite shear wall system for the concrete prefabricated prefinished volumetric construction (or PPVC) technology. The lightweight PPVC modules lead to significant cost savings and construction productivity with more efficient transportation and installation, better site safety and environmental outcomes for the industry.

Another Innovative PE award was presented to Er. Ng Choon Yeang for spearheading the study, testing and implementation of Steel Fibre Reinforced Concrete (SFRC) for underground tunnels in Singapore for the first time on a Downtown Line 3 project. The use of SFRC significantly improved construction productivity and long-term durability of the tunnel structures.

PEB Gold Medals

Ten graduates from the National University of Singapore, Nanyang Technological University and Singapore Institute of Technology undergraduate engineering programmes were presented with the PEB Gold Medal Awards in recognition of their outstanding engineering academic achievements.

Green.Gov.SG Sustainability Initiatives

PEB has contributed to the government's green and sustainability initiatives by including sustainability into capability building and professional development for the engineering community. This year's Day of Dedication event featured a keynote presentation on "Coastal Adaption in Singapore" to share the exciting plans to protect and redevelop our coastal areas and to encourage our new PEs to equip themselves to contribute to the upcoming coastal protection works.

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