

Is the Professional Interview Difficult to Pass?

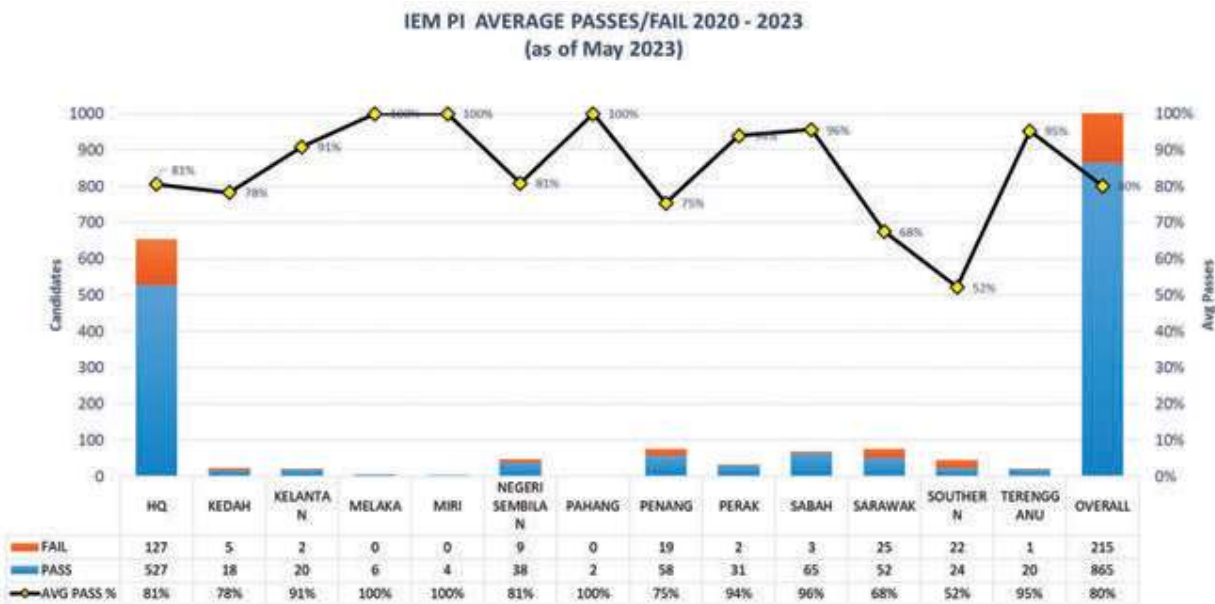
The Institution of Engineers, Malaysia (IEM) Professional Interview (PI) is a crucial milestone for aspiring engineers in the country. The performance data from 2020 to May 2023, offers insightful revelations about the examination outcomes across various regions. Analysing this data provides a comprehensive understanding of overall performance trends and specifically, the performance of candidates interviewed at the IEM Headquarters (HQ), which has the most significant number of candidates. Candidates are allowed to choose the venue for the interviews, depending on their localities and preferences.

Some regions which have lower passing rates, highlight potential areas for improvement in candidate preparation or support from IEM.

The performance of candidates at the IEM HQ is particularly noteworthy due to the significant number of participants in this region. With 654 candidates, HQ represents the largest cohort by far. Of these, 527

candidates passed the examination, resulting in a pass rate of 81%.

The HQ pass rate aligns closely with the overall national average, slightly surpassing it by 1%. This minor difference indicates that the HQ performance is reflective of the general trend across all regions. However, the sheer volume of candidates at the HQ amplifies the importance of this region's results. Given the high stakes and the large candidate pool, maintaining an 81% pass rate is testament to the effective preparation and quality of candidates in this region.



The overall performance of candidates in the IEM PI during this period reveals a moderately high success rate. Of the total of 1,080 candidates, 865 passed the examination, resulting in an 80% pass rate. This is indicative of a rigorous preparation process that most candidates undergo. The IEM, through its sub-committees, has been actively providing support to candidates through the PI Workshop to Candidates seminars, structured training programmes to company employees and advisory clinics for unsuccessful candidates. The following chart shows the passing rates from IEM branches and the overall passing rate for the period.

The distribution of pass rates across different regions shows a diverse range of results. Regions with larger numbers of candidates, such as HQ, Penang, Sabah and Sarawak, show more variability in their pass rates.

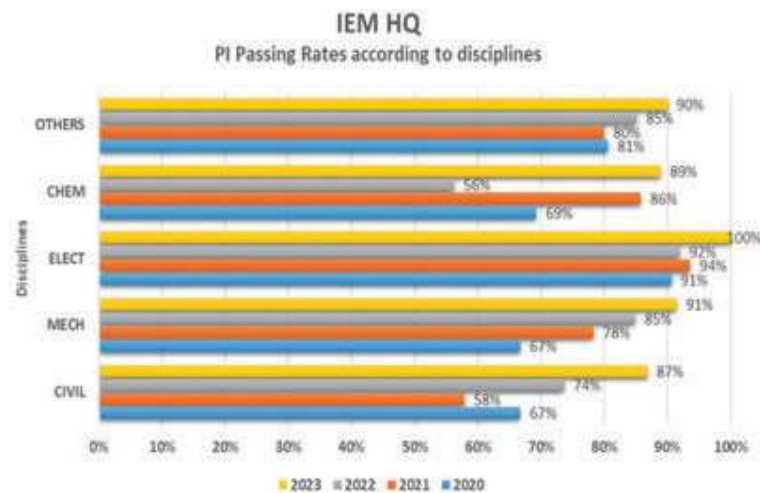
The performance of candidates at HQ is crucial as it serves as a benchmark for other regions. The centralised resources, training facilities and access to preparatory materials are likely to have contributed to the robust performance of the candidates. However, the 19% failure rate suggests that there is still room for improvement. Enhanced preparatory programmes, targeted support for weaker candidates and continuous feedback mechanisms can further boost the pass rates.

When comparing the HQ to other regions, several key insights emerge. These discrepancies call for a deeper investigation into regional support systems, resources availability and candidate preparedness. The variations in pass rates across regions indicate the need for a more uniform approach to candidate preparation and support. By addressing the gaps and leveraging successful strategies

from high-performing regions, IEM can aim to further elevate the pass rates and ensure a consistently high standard of professional competence among engineers in the country.

Analysis of IEM Headquarters PI Passing Rates by Discipline (2020-2023)

The IEM HQ PI passing rates for various engineering disciplines from 2020 to 2023 provide valuable insights into the performance trends and outcomes of candidates. The disciplines considered include Civil, Mechanical, Electrical, Chemical and Others (Geotechnical, Manufacturing, Building Services, Mechatronic, Electronic, Petroleum, Bioengineering, etc.).



A thorough examination of this data reveals important patterns and highlights areas of strength and potential improvement across different years.

Civil Engineering

Civil Engineering candidates experienced a notable upward trajectory in pass rates over the four-year period. Starting at 67% in 2020, the pass rate dipped to 58% in 2021, possibly due to the disruptive impacts of the COVID-19 pandemic on education and examination processes. However, a significant recovery is evident, with the pass rates climbing to 74% in 2022 and reaching a commendable 87% in 2023.

Mechanical Engineering

Mechanical Engineering candidates demonstrated consistent and substantial improvements over the years. From an initial pass rate of 67% in 2020, the rate increased to 78% in 2021, rising further to 85% in 2022 and achieving an impressive 91% in 2023.

Electrical Engineering

Electrical Engineering maintained consistently high pass rates, starting at 91% in both 2020 and 2021, slightly improving to 94% in 2022, and achieving a perfect 100% in 2023.

Chemical Engineering

Chemical Engineering displayed a variable trend in pass rates. Starting at 69% in 2020, the pass rate dropped to 56% in 2021, marking the lowest among all disciplines for that year. However, a remarkable recovery followed, with pass rates jumping to 86% in 2022 and further improving to 89% in 2023.

Other Disciplines

The Others category, which includes various specialised engineering fields, showed a positive and consistent trend. Beginning at 81% in 2020, the pass rates remained steady at 80% in 2021, then improved to 85% in 2022 and reached 90% in 2023.

Comparative Analysis & Insights

Across most disciplines, there is a clear trend of improving pass rates over the years. This suggests that the IEM has successfully implemented effective training and preparatory strategies, especially in response to the challenges posed by the COVID-19 pandemic.

In summary, the HQ PI passing rates by discipline reveal a generally positive trend, with improvements across most disciplines. The consistent increase in pass rates, particularly in Electrical and Mechanical Engineering, highlights the success of the preparatory programmes and educational strategies implemented by IEM. While some disciplines faced challenges, the overall recovery and improvement suggested effective interventions and a commitment to maintaining high standards in engineering education and professional development. This data underscores the importance of continuous improvement and adaptation in training strategies to ensure the success of future engineering professionals.

Other initiatives by IEM are as follows:

1. Outcome-Based PI 2.0

The newly launched Outcome-Based PI 2.0 aims to simplify documentation and assessment procedures, making the process more streamlined and user-friendly. Importantly, this simplification does not compromise the core requirements set by international bodies such as the International Professional Engineers Agreement (IPEA) and the Asia Pacific Economic Cooperation (APEC). PI 2.0 integrates the Technical Report with the Training and Experience Report, shifting the focus from the duration of experience to the quality of technical expertise demonstrated.

2. IEM Structured Training Scheme

Established by IEM, this scheme is designed to provide comprehensive practical training for young graduates entering the engineering profession. The scheme aligns with the Institution's rules for the admission of Corporate Members, ensuring that participants gain essential

skills and professional competence. Companies can collaborate with IEM to enroll their staff members in this programme, which typically takes place on weekends. This partnership enhances the professional development of employees while boosting the company's reputation for fostering well-trained professionals.

Planning for the Future

Moving forward, the PI Board is committed to enhancing its processes continuously. To achieve this, it has undertaken various initiatives, including:

1. **Optimising the Process Timeline:** The timeline from the appointment of interviewers to the submission of results to the Secretariat has been streamlined. Interviewers are now expected to conduct interviews and submit results within two months of candidate notification. The aim is to complete the entire process within five months of receiving the candidate's application.
2. **Pairing Senior and New Interviewers:** By pairing senior interviewers with newer ones, the Board ensures a consistent and thorough assessment of competency elements. While all interviewers must undergo a workshop to qualify, their individual experiences and exposures vary, making this pairing essential to minimise discrepancies.
3. **Reviewing Documentation of Failed Candidates:** The PI Board reviews the documentation of candidates who do not pass. This review, conducted by a designated reviewer, ensures that assessments have been fair and professional. In some cases, the initial decision may be overturned if the documentation is deemed satisfactory upon further review.
4. **Conducting Random Audits of Passed Candidates' Scripts:** To ensure fair and consistent assessments, the PI Board performs random audits of passed candidates' scripts. These will help identify any deviation in the assessment process, maintaining the competency threshold.
5. **Pairing Interviewers and Candidates by Area of Practice:** The PI Board utilises a detailed database of interviewers to match candidates with interviewers from the same field of practice. This matching ensures that candidates are assessed by professionals with relevant expertise.
6. **Conducting Advisory Clinics for Unsuccessful Candidates:** The Board offers advisory clinics to assist candidates who face difficulties in any interview area. Experienced interviewers provide advice in online sessions, typically lasting 60-90 minutes, which can be requested through the IEM Secretariat.
7. **Resolving Complaints Against Interviewers:** The Board addresses any complaint against interviewers by conducting thorough investigations. Despite adherence to a strict professional conduct code, misunderstandings can occur. The Board investigates the facts and recommends corrective actions to resolve issues.

In addition to these initiatives, the PI Board has numerous medium and long-term plans to further enhance the IEM's delivery system. These efforts aim to adapt to the challenges in the ever-changing world, improving the professional interview experience for candidates while upholding the standards and quality of professional engineers certified by the IEM.

The IEM PI process offers a comprehensive and fair pathway for candidates seeking professional recognition. Key features include:

1. **Fair and Transparent Assessment:** Candidates are evaluated based on transparent criteria, with passing marks reflecting their demonstrated competence.
2. **Venue Flexibility:** Candidates have the option to choose from various venues for their interviews, ensuring greater accessibility and convenience.
3. **Robust Quality Assurance:** To maintain the integrity of the PI process, several checks and balances are in place. These include audits, the pairing of interviewers for balanced perspectives and the careful assignment of interviewers based on their areas of expertise.
4. **Enhanced Documentation with PI 2.0:** The recently introduced PI 2.0 system simplifies documentation requirements, making the process more user-friendly while continuing to uphold high standards.
5. **Support for Unsuccessful Candidates:** A dedicated support system, including advisory clinics, is available to assist candidates who do not succeed, offering guidance and feedback for improvement.
6. **International Recognition:** The IEM PI complies with the standards set by international certifying bodies, enabling successful candidates to enjoy global recognition and professional mobility.

Thus, the perception that the IEM PI is difficult to pass is just a myth. With proper preparations and demonstrated competence, success is well within reach. ■

Prepared by:



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Chairman, Professional Interview Board

DEEPEST CONDOLENCES

On behalf of The Institution of Engineers, Malaysia (IEM), we would like to express our deepest condolence to the bereaved family of

Allahyarham Ir. Dr Md. Azlin Md. Said

We at IEM, honour his contribution to the IEM as IEM Past Perak Branch Chairman and IEM Council Member for Session 2010/2011.