

This Competency Standard for Professional Interview is aligned with the IEA Professional Competency Profile, and benchmarked against the UK Standard for Professional Engineering Competence for Chartered Engineers.

Corporate Members of IEM and Professional Engineers should demonstrate:

- The theoretical knowledge, understanding and skills in own specialisation, coupled with related technologies, products, and services as well as engineering codes, practices, standards, specifications and techniques.
- Application of the knowledge and practical methods to the analysis and solution of engineering problems; and take technical responsibility for complex engineering systems.
- Accountability for project, finance and personnel management, and managing trade-offs between technical and socio-economic factors.
- Effective interpersonal skills in communicating technical matters.
- Personal commitment to professional standards.

This Competency Standard consists of eighteen Competency Elements grouped under five Competency Categories. The Competency Standard demonstrates the underpinning knowledge and understanding of engineering fundamentals, application abilities, leadership and management skills, communication and interpersonal skills, and personal commitment to the profession that must be demonstrated in order to practice professionally. The Competency Elements are used as the basis for assessing those who apply to sit for the Professional Interview conducted by the IEM. Applicants will be required to provide evidence of competence against each of the eighteen Competency Elements. The evidence is to be drawn from their work experience, specifically as they have encountered engineering problems or engaged in engineering activities.

A	Use a combination of general and specialised engineering knowledge and understanding as a basis for optimising the application of existing and emerging technology.
A1	Maintain and extend personal knowledge, understanding and technical skills in own and allied fields of specialisation.
PI Candidates shall demonstrate the ability to maintain and enhance their knowledge, understanding and technical skills beyond their formal educational foundation through continuous learning and practical working experience. They shall possess sufficient breadth and depth of knowledge to apply existing and emerging technologies within their own and allied fields of specialisation. Candidates shall recognise their own limitations, identify areas for further development, and proactively extend their technological and engineering capabilities to broaden and deepen their professional knowledge base.	
A2	Learn and broaden personal knowledge and experience in the technology, products or services related to own specialisation, preferably with a view to improvement.
PI Candidates shall demonstrate the ability to acquire, expand and apply knowledge and experience in relevant technologies, products, services, applications and processes within their area of specialisation. Through practical working experience and continuous learning, Candidates shall develop the capability to evaluate improvements and contribute effectively to continuous improvement initiatives within their professional practice.	
A3	Comprehend and apply knowledge and understanding of the relevant engineering codes, standards, specifications, applications, especially those appropriate to local context, requirements, and application.
PI Candidates shall demonstrate the ability to understand and apply relevant engineering codes, practices, standards, specifications, materials, products, environmental requirements, and other applicable requirements within their field of specialisation. Candidates shall be able to interpret and implement these requirements, particularly those established for local context, conditions, practices and applications, collectively referred to as “local engineering knowledge”.	

B	Apply appropriate theoretical and practical methods to the analysis and solution of engineering problems
B1	Identify projects and/or opportunities/problems
PI Candidates shall demonstrate the ability to analyse, review and define engineering opportunities, needs and problems arising from actual projects through direct involvement, research and development activities, or operation and maintenance activities. Candidates shall be able to identify gaps, challenges or areas for improvement that require engineering solutions, further investigation, or innovation.	
B2	Conduct appropriate research and undertake design and development of engineering solutions.
PI Candidates shall demonstrate the ability to conduct theoretical and/or applied research, evaluate design options, and develop appropriate engineering solutions. Candidates shall be able to determine the level of complexity, select and apply suitable research methodologies, develop appropriate testing approaches, collect and analyse relevant data, and exercise sound engineering judgement in recommending and finalising design solutions. Candidates shall be able to prepare, present and justify engineering recommendations to relevant stakeholders, and obtain the necessary acceptance or approval for implementation.	
B3	Implement design solutions, and evaluate their effectiveness.
PI Candidates shall demonstrate the ability to implement engineering design solutions through to completion, including construction, testing, commissioning, operation, or other forms of successful implementation. Candidates shall be able to manage critical constraints, including safety, sustainability, cost, quality, and project requirements, while ensuring that the intended design performance and objectives are achieved. Candidates shall be able to establish appropriate criteria to monitor and evaluate progress and outcomes, identify areas for improvement, undertake design modifications where necessary, and conduct project reviews to assess performance against the original requirements. The outcomes of such reviews shall be used to improve future engineering practices and develop best practices.	

C	Provide technical and commercial management.
C1	Plan for effective project / job task implementation.
PI Candidates shall demonstrate the ability to plan and organise project or job task implementation in accordance with project objectives and organisational requirements. Candidates shall be able to systematically evaluate factors affecting implementation, including safety, sustainability, and social, cultural and environmental considerations. Candidates shall be able to identify, assess and manage risks using a systematic approach, recognise competing requirements, and exercise sound engineering judgement in developing effective implementation strategies. Candidates shall be able to prepare and agree implementation plans, method statements, resource requirements, and necessary contractual arrangements with relevant stakeholders.	
C2	Plan, budget, organise, direct and control tasks, people and resources.
PI Candidates shall demonstrate the ability to manage and control project or job task implementation by effectively planning, allocating and utilising tasks, people and resources in accordance with project objectives and requirements. Candidates shall be able to establish appropriate management systems, define quality standards, programmes/schedules and budgets, and ensure compliance with applicable legal and statutory requirements. Candidates shall be able to lead and coordinate work teams, monitor project or job task performance, identify deviations from quality, schedule and budget requirements, evaluate their impacts, and implement appropriate corrective actions. Candidates shall also be able to gather and evaluate feedback to recommend improvements and enhance future project delivery.	
C3	Lead teams and develop staff to meet changing technical and/or managerial needs.
PI Candidates shall demonstrate the ability to provide leadership and support the development of teams and individuals within a project or job setting. Candidates shall be able to establish objectives, define work plans, and align team and individual responsibilities with project or organisational requirements. Candidates shall be able to identify technical and professional development needs, support continuous improvement and learning, promote commitment to professional	

standards, and provide guidance, mentoring and feedback to enhance team and individual performance.

C4

Bring about continuous improvement through quality management.

PI Candidates shall demonstrate the ability to promote and implement continuous improvement through effective quality management practices. Candidates shall be able to establish, maintain and improve processes to meet applicable quality standards, promote a quality culture within the organisation and across relevant stakeholder networks, and support consistent delivery of engineering outcomes.

Candidates shall be able to lead project evaluation, analyse performance results, identify areas for improvement, and develop recommendations to enhance processes, practices and future project delivery.

D	Demonstrate effective interpersonal skills
D1	Communicate in National or English Language with others at all levels.
PI Candidates shall demonstrate the ability to communicate effectively, both verbally and in writing, in the National Language or English Language with a wide range of internal and external stakeholders, including professionals, clients, contractors, consultants, suppliers, authorities and other relevant parties. Candidates shall be able to lead, chair, contribute to and document meetings and discussions; prepare clear communications, technical documents and reports on complex matters; exchange information effectively; and provide appropriate advice and guidance to both technical and non-technical stakeholders.	
D2	Present and discuss proposals.
PI Candidates shall demonstrate the ability to prepare, present and discuss proposals for work programmes, projects or engineering initiatives in a clear, concise and effective manner. Candidates shall be able to develop and deliver appropriate presentations, lead and facilitate discussions with relevant stakeholders, respond to feedback, and incorporate relevant inputs to improve proposals. Candidates shall be able to communicate key considerations, including risks, constraints and potential impacts, to support informed decision-making.	
D3	Demonstrate personal and social skills
PI Candidates shall demonstrate the ability to establish, maintain and enhance effective working relationships with colleagues, teams and relevant stakeholders. Candidates shall be able to recognise and manage their own strengths, limitations and behaviours, demonstrate self-awareness, and adapt effectively to different interpersonal and professional situations. Candidates shall be able to understand and respect the needs, perspectives and concerns of others, including considerations related to diversity and inclusion; collaborate towards shared goals; and manage, resolve or appropriately escalate conflicts to achieve positive outcomes.	

E	Demonstrate a personal commitment to professional standards, recognizing obligations to society, the profession and the environment
E1	Comply with relevant codes of conduct
PI Candidates shall demonstrate the ability to uphold and apply the professional code of conduct of their respective professional institution and maintain ethical standards in their engineering practice. Candidates shall be able to carry out their responsibilities in compliance with applicable legislation, regulations, statutory requirements and relevant professional obligations, including those related to social and employment matters.	
E2	Manage and apply safe systems of work.
PI Candidates shall demonstrate the ability to identify and fulfil their responsibilities in relation to health, safety and welfare in engineering practice. Candidates shall be able to ensure that appropriate systems of work are established, implemented and maintained in accordance with applicable health, safety and welfare requirements. Candidates shall be able to develop and implement effective hazard identification and risk management processes, promote a safety culture, monitor and evaluate the effectiveness of these systems, and implement improvements where necessary. Candidates shall apply sound knowledge of relevant health and safety legislation and requirements in their professional activities.	
E3	Undertake engineering activities in a way that contributes to sustainable development.
PI Candidates shall demonstrate the ability to undertake engineering activities responsibly by considering environmental, social and economic factors in decision-making. Candidates shall be able to balance sustainability objectives with technical, operational and financial requirements, and apply creativity, innovation and appropriate engineering solutions to enhance environmental performance and community outcomes. Candidates shall be able to recognise the importance of stakeholder involvement in sustainable development, promote responsible use of resources, and apply effective practices to improve the long-term sustainability of engineering activities.	

E4	Carry out and record continuing professional development (CPD) necessary to maintain and enhance competence in own area of practice.
PI Candidates shall demonstrate the ability to maintain and enhance their professional competence through continuous learning and development activities. Candidates shall be able to assess their own development needs, establish and implement appropriate CPD plans aligned with personal and organisational objectives, and undertake both planned and emerging learning activities. Candidates shall be able to maintain accurate records and evidence of CPD activities, evaluate the effectiveness and outcomes of their development against intended objectives, and support the professional development of others where appropriate.	
E5	Understand the legal matters pertaining to engineering profession.
PI Candidates shall demonstrate the ability to understand and apply relevant legal principles, statutory requirements and regulatory obligations relating to engineering practice and professional services. Candidates shall possess knowledge of applicable laws and legal frameworks that may affect the planning, design, implementation, operation and delivery of engineering works and services. Candidates shall be able to recognise the legal implications of engineering decisions and ensure that their professional activities are carried out in accordance with relevant legal and regulatory requirements.	