BANGLADESH PROFESSIONAL ENGINEERS REGISTRATION BOARD (BPERB)

Institution of Engineers, Bangladesh (IEB)

Self-Assessment Report

for Professional Engineer (PEng) / IntPE Applicants

Aligned with GAPC Version 4 — IPEA 13 Engineering Competencies (EC1–EC13) and the Five Core Professional Competence Standards (CPCS A–E) as set out in BPERB Applicant Manual v4.1 (March 2026)

Applicant Full Name	
IEB Membership No.	
Engineering Discipline / Sub-discipline	
Applying For (keep one only)	Registered Engineer (RE) / National PEng / IntPE
Years of Experience since Graduation	
Years in Responsible Charge (Bangladesh)	
Current Employer / Organisation	
Current Position	
Mobile	
Email	
Date of Self-Assessment	

1. Purpose of this Self-Assessment

This form is a structured self-rating instrument that you (the applicant) complete during PEng application. Its purpose is fourfold:

- Verify that you meet, in your own judgement and with citable evidence, each of the thirteen IPEA Engineering Competencies (EC1–EC13) at the level expected of a Professional Engineer under GAPC v4.
- Map two to three substantive complex-engineering activities from your career to the ECs they jointly demonstrate, so the same evidence can later anchor the holistic narrative required by Appendix C.1.
- Identify gaps where evidence is thin or your attainment is below the threshold, so you can either strengthen the evidence or defer the application until you have done so.
- Prepare you for the written examination, the 15-minute presentation, and the 60–90 minute oral interview, all of which probe the same EC1–EC13 set.

2. The GAPC v4 Holistic-Assessment Rule

BPERB Manual §3.0 adopts GAPC v4 §3.4 verbatim: ***"competence must be assessed holistically."*** Three consequences follow for this self-assessment:

- Evidence is drawn from 2–3 substantive complex-engineering activities, not from 13 separate paragraphs. The same project may demonstrate several ECs simultaneously.
- A minimum attainment of Level 3 ("Practising Professional Engineer") is required on EVERY EC. There is no compensation across ECs — a Level 4 on EC4 does not offset a Level 2 on EC7.
- You must demonstrate independent judgement and responsible charge. EC13 (responsibility for decisions) and EC9 (managing complex activity) are non-negotiable.

3. How to Complete this Form

1. List your evidence projects on page 4 (the Evidence Projects Register). Pick 2–3 substantive complex-engineering activities where you were in responsible charge. Give each a short code (P1, P2, P3).
2. For each of EC1 to EC13, read the GAPC v4 descriptor and the indicative evidence prompts, then (a) tick the projects (P1/P2/P3) that demonstrate the EC, (b) write a 60–120 word evidence statement citing concrete decisions, calculations, codes, or outcomes, and (c) self-rate your attainment on the 1–4 scale.
3. Complete the EC-to-Project Coverage Matrix on the penultimate page.
4. Complete the Readiness Summary and the Gap & Action Plan. If any EC is rated below Level 3, do not submit; close the gap first.
5. Sign the Candidate Declaration on the final page.

4. Self-Rating Scale (GAPC v4 — Four Levels of Attainment)

Level	Title	GAPC v4 Descriptor (abbreviated)
1	**Developing**	Aware of the principle but cannot yet apply it independently. Work is closely supervised; outputs are reviewed and corrected before release.
2	**Graduate Engineer**	Applies the principle under guidance to routine problems. Recognises when to escalate. Has not yet been in responsible charge of significant work.
3	**Practising Professional Engineer**	Applies the principle independently to complex problems within own jurisdiction of practice. Has been in responsible charge of significant engineering work and exercises sound judgement.
4	**Leading Practitioner**	Sets direction for others on the principle. Pushes the state of practice through innovation, codes development, mentorship, publication, or professional-body leadership.

Threshold for PEng award: Level 3 or above on every one of EC1–EC13. Level 2 or below on any single EC indicates the candidate is not yet ready and should defer.

5. Evidence Projects Register

List two to three substantive complex-engineering activities you led or contributed to in responsible charge. These will serve as the evidence base for EC1–EC13 throughout the rest of the form.

Code	Project / Activity Title	Role & Period	Complexity Justification (why it is a complex-engineering activity)
P1			
P2			
P3			

Definition (Manual §4.1.2): *A candidate is in responsible charge of significant engineering works when they have (a) planned, designed, coordinated and executed a small project; or (b) undertaken a significant part of a large project with an understanding of the whole; or (c) undertaken novel or complex work responsibilities.*

EC1–EC13 — Self-Rating and Evidence

CPCS A — Knowledge and Understanding

EC1	CPCS A — Knowledge and Understanding **Comprehend and apply advanced knowledge of widely-applied principles underpinning good practice.**

Indicative evidence prompts

- Identify the engineering-science principles (mechanics, thermodynamics, soil mechanics, electromagnetics, etc.) you applied to a complex problem.
- Cite the specific theories, models, or formulations used and how you verified their applicability.
- Reference textbooks, standards, or peer-reviewed papers that underpinned the analysis.

Projects evidencing this EC	Self-Rating (1–4)
☐ P1 ☐ P2 ☐ P3	

Evidence Statement (60–120 words) — cite specific decisions, calculations, codes, outcomes

EC2	CPCS A — Knowledge and Understanding **Comprehend and apply advanced knowledge of widely-applied principles underpinning good practice specific to the jurisdiction of practice.**

Indicative evidence prompts

- Cite the Bangladeshi codes you applied (e.g., BNBC 2020, RAJUK Imarat Bidhimala, BNBC seismic provisions, BWDB design manuals).
- Explain how local site conditions (e.g., soft deltaic deposits, seismicity, monsoon hydrology) shaped your decisions.
- Identify regulatory authorities involved (RAJUK, DCC/CCC, BWDB, BR, BRTC, etc.) and approvals obtained.

Projects evidencing this EC	Self-Rating (1–4)
☐ P1 ☐ P2 ☐ P3	

Evidence Statement (60–120 words) — cite specific decisions, calculations, codes, outcomes

CPCS B — Design, Development and Solving Engineering Problems

EC3	CPCS B — Design, Development and Solving Engineering Problems **Define, investigate and analyse complex problems using data and information technologies where applicable.**

Indicative evidence prompts

- How did you frame the problem statement and the boundary conditions?
- What investigations did you commission or perform (soil tests, surveys, monitoring, modelling)?
- Which software / numerical tools did you use (e.g., PLAXIS, ETABS, SAFE, HEC-RAS)? Describe the analysis workflow.

Projects evidencing this EC	Self-Rating (1–4)
☐ P1 ☐ P2 ☐ P3	

Evidence Statement (60–120 words) — cite specific decisions, calculations, codes, outcomes

EC4	CPCS B — Design, Development and Solving Engineering Problems **Design or develop solutions to complex problems considering a variety of perspectives and taking account of stakeholder views.**

Indicative evidence prompts

- List alternative concepts considered and the multi-criteria basis on which the chosen solution was selected.
- Identify the stakeholders consulted (client, contractor, community, regulator) and how their views influenced the design.
- Describe the design iterations and how trade-offs (cost, schedule, durability, constructability) were balanced.

Projects evidencing this EC	Self-Rating (1–4)
☐ P1 ☐ P2 ☐ P3	

Evidence Statement (60–120 words) — cite specific decisions, calculations, codes, outcomes

EC5	CPCS B — Design, Development and Solving Engineering Problems **Evaluate the outcomes and impacts of complex activities.**

Indicative evidence prompts

- How was the as-built performance verified against design intent (instrumentation, load tests, commissioning)?
- What lessons were captured post-completion and how were they fed back into your or your firm's practice?
- Quantify outcomes (settlement, deflection, capacity, NRW reduction, cost-saving, emissions avoided).

Projects evidencing this EC	Self-Rating (1–4)
☐ P1 ☐ P2 ☐ P3	

Evidence Statement (60–120 words) — cite specific decisions, calculations, codes, outcomes

EC6	CPCS B — Design, Development and Solving Engineering Problems **Recognise the foreseeable economic, social, and environmental effects of complex activities and seek to achieve sustainable outcomes.**

Indicative evidence prompts

- Describe the economic appraisal (BCR, LCC, NPV) you performed or relied on.
- Identify environmental impacts (carbon, water, biodiversity, land take, dredge spoil) and mitigation measures.
- Describe how climate-resilience and disaster-risk reduction (flood, cyclone, liquefaction) were embedded.

Projects evidencing this EC	Self-Rating (1–4)
☐ P1 ☐ P2 ☐ P3	

Evidence Statement (60–120 words) — cite specific decisions, calculations, codes, outcomes

CPCS C — Responsibility, Management and Leadership

EC7	CPCS C — Responsibility, Management and Leadership **Meet all legal, regulatory, and cultural requirements and protect public health and safety in the course of all activities.**

Indicative evidence prompts

- List statutes, regulations, and licensing conditions that applied (e.g., Bangladesh Labour Act, Environment Conservation Act, IEB Code of Ethics).
- Describe the HSE plan, permit-to-work system, and incident-reporting protocol.
- Explain how cultural / religious / heritage sensitivities of the site context were addressed.

Projects evidencing this EC	Self-Rating (1–4)
☐ P1 ☐ P2 ☐ P3	

Evidence Statement (60–120 words) — cite specific decisions, calculations, codes, outcomes

CPCS E — Personal and Professional Commitment

EC8	CPCS E — Personal and Professional Commitment **Conduct activities ethically.**

Indicative evidence prompts

- Describe a situation where a conflict of interest, bribery pressure, or quality compromise arose, and the action you took.
- How do you align with the IEB Code of Ethics and Appendix B of the BPERB Manual (Rules of Ethics and Conduct)?
- Cite any whistleblowing, refusal to certify, or escalation events.

Projects evidencing this EC	Self-Rating (1–4)
☐ P1 ☐ P2 ☐ P3	

Evidence Statement (60–120 words) — cite specific decisions, calculations, codes, outcomes

CPCS C — Responsibility, Management and Leadership

EC9	CPCS C — Responsibility, Management and Leadership **Manage part or all of one or more complex activities.**

Indicative evidence prompts

- State the scope, schedule, and budget you owned; the size of the team you led; and the procurement / contract model used.
- Describe how risks, changes, and interfaces with other disciplines were managed.
- Cite KPIs (cost variance, schedule variance, safety man-hours, defect rate) achieved.

Projects evidencing this EC	Self-Rating (1–4)
☐ P1 ☐ P2 ☐ P3	

Evidence Statement (60–120 words) — cite specific decisions, calculations, codes, outcomes

CPCS D — Communication and Interpersonal Skills

EC10	CPCS D — Communication and Interpersonal Skills **Communicate and collaborate using multiple media clearly and inclusively with a broad range of stakeholders in the course of all activities.**

Indicative evidence prompts

- List the deliverables you authored (design report, technical specification, peer-review note, public consultation brief).
- Describe a presentation, workshop, or negotiation you led and its outcome.
- Show evidence of inclusive communication (Bengali / English, non-technical audiences, gender-balanced facilitation).

Projects evidencing this EC	Self-Rating (1–4)
☐ P1 ☐ P2 ☐ P3	

Evidence Statement (60–120 words) — cite specific decisions, calculations, codes, outcomes

CPCS E — Personal and Professional Commitment

EC11	CPCS E — Personal and Professional Commitment **Undertake CPD activities to maintain and extend competences and enhance the ability to adapt to emerging technologies and the ever-changing nature of work.**

Indicative evidence prompts

- Summarise CPD hours in the last 12 months (RE: 20h; PEng: 30h; IntPE: 50h — Manual §4.1).
- List structured learning (courses, conferences), self-study, publications, professional-body service.
- Identify emerging technologies (e.g., AI in engineering, performance-based seismic design, low-carbon concrete) you have engaged with.

Projects evidencing this EC	Self-Rating (1–4)
☐ P1 ☐ P2 ☐ P3	

Evidence Statement (60–120 words) — cite specific decisions, calculations, codes, outcomes

CPCS C — Responsibility, Management and Leadership

EC12	CPCS C — Responsibility, Management and Leadership **Recognise complexity and assess alternatives in light of competing requirements and incomplete knowledge. Exercise sound judgement in the course of all complex activities.**

Indicative evidence prompts

- Describe a decision made under uncertainty (e.g., variable subsoil, contested load case, incomplete drawings).
- Show how you weighted evidence, applied conservatism, and bounded the residual risk.
- Cite the safety / robustness factor or sensitivity analysis that supported your judgement.

Projects evidencing this EC	Self-Rating (1–4)
☐ P1 ☐ P2 ☐ P3	

Evidence Statement (60–120 words) — cite specific decisions, calculations, codes, outcomes

EC13

CPCS C — Responsibility, Management and Leadership

Be responsible for making decisions on part or all of complex activities.

Indicative evidence prompts

- Identify decisions for which you were personally accountable (sign-off on drawings, calculations, method statements, NCRs, certifications).
- Describe a moment where you overruled or refused to sign and the basis for it.
- Show the chain of authority and how your accountability was recorded.

Projects evidencing this EC	Self-Rating (1–4)
☐ P1 ☐ P2 ☐ P3	

Evidence Statement (60–120 words) — cite specific decisions, calculations, codes, outcomes

6. EC-to-Project Coverage Matrix

Tick (✓) the cell where a project supplies meaningful evidence for the EC. The bottom row records your final self-rating after considering evidence from all listed projects. This matrix may be copied verbatim into your Appendix C.1 report.

Project ↓ / EC →	EC1	EC2	EC3	EC4	EC5	EC6	EC7	EC8	EC9	EC10	EC11	EC12	EC13
P1													
P2													
P3													
Self-Rating (1–4)													

Coverage rule (GAPC v4): Every EC must be ticked by at least one project, and every column in the Self-Rating row must read 3 or 4.

7. Readiness Summary

A “No” on any item below means you are not yet ready to apply. Close the gap before proceeding to Appendix C.1.

#	Readiness check	Yes / No / NA
A1	IEB-BAETE accredited bachelor’s degree (or WA-equivalent route — Manual §4.1.4)	
A2	Current IEB Member or Fellow	
A3	≥ 7 years post-graduation experience (PEng / IntPE) or ≥ 5 years (RE; or 3 yrs post-MSc)	
A4	≥ 2 years in responsible charge of significant engineering work in Bangladesh	
A5	CPD: 20 h (RE) / 30 h (PEng) / 50 h (IntPE) in preceding 12 months — Manual §4.1	
A6	Two sponsors identified (PEng with ≥ 3 yrs tenure OR IEB Fellows with ≥ 10 yrs)	
A7	Two to three complex-engineering activities documented above (P1–P3)	
A8	Every EC1–EC13 self-rated at Level 3 or above	
A9	Familiar with IEB Code of Ethics (Appendix A) and BPERB Rules (Appendix B)	
A10	Prepared to sit a 3-hour written exam and a 60–90 minute oral interview with 15-min presentation	

8. Gap Identification and Action Plan

For every EC self-rated below Level 3, OR every readiness check ticked “No”, capture the gap and the action you will take before submission.

EC / Item	Gap description	Action to close the gap (CPD, project, mentoring, publication, etc.)	Target date

9. Candidate Declaration

I confirm that:

- The information recorded in this Self-Assessment Form is, to the best of my knowledge, complete and correct.
- The evidence projects P1–P3 listed are my own work, performed in the roles and periods declared, and I was in responsible charge as defined in §4.1.2 of the BPERB Applicant Manual v4.1.
- I have read and accept the IEB Code of Ethics (Appendix A) and the BPERB Rules of Ethics and Conduct (Appendix B).
- I have not committed plagiarism or collusion, and I understand that doing so may result in a ban from applying for PEng or expulsion from IEB membership.
- I will not contact potential assessors directly or indirectly at any time during the assessment process.

Signature (or full name if no digital signature)	**Date**
_____	_____
Name (block letters)	**IEB Membership No.**
_____	_____

References. *BPERB Applicant Manual for PEng and IntPE Application, Version 4.1 (March 2026), §3.0 Competence Standards, §3.1 CPCS, §3.2 EC1–EC13, §3.3 CPCS-to-EC Mapping, §4.1 Pre-requisites, Appendix A IEB Code of Ethics, Appendix B Rules of Ethics and Conduct, Appendix C.1 Self-Assessment Report. GAPC Version 4 §3.4 ("competence must be assessed holistically"). International Engineering Alliance (IEA) IPEA benchmark of 5+2 years.*