

The Institution of Engineers (India)



GUIDELINE FOR CERTIFICATION OF PROFESSIONAL ENGINEER (INDIA)

(Rev- 03)

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THE INSTITUTION OF ENGINEERS (INDIA)
Guidelines for Applicants for Professional Engineer [P Eng (India)]

1. Why PE Certification?

Professional Engineer authorization enables engineering professionals to advance higher in their careers and in wide ranging ways. Considering the higher standard of competence for the engineering profession, PE certification not only enhances an engineering professional's stature, but also makes them suitable for higher levels of authority and responsibility.

Not only does a PE earn respect among engineering peers and a personal sense of achievement, there are a number of practical career options that are not always available to their non-PE certified counterparts. The contribution to career advancement is among the most important benefits of PE certified professional.

During the hiring process, for example, having the PE certificate shows that the candidate has met all the standards of the profession and, especially for fields where the PE is preferred but not required, sets her or him apart from others. In future, only a professional engineer may prepare, sign, seal and submit engineering plans and drawings to a public authority for approval, or to seal engineering work for public and private clients. With these responsibilities comes more authority and greater earning potential.

Earning and maintaining a PE certificate enables an engineer to become an independent consultant, a government engineer, or an educator.

For an engineering professional who may want to pursue a career as a consulting engineer, own his or her own engineering firm, or be in charge of engineering work for the public, PE Certification is a assurance of competency of Engineers.

2. PE Certification(India)by IE(India)

A Professional Engineer (P. Eng) by definition is one whose academic qualification & experience will be in conformity with the **nationally** acceptable standards.

Under the mandate of the Royal Charter, conferred on 13 Aug, 1935, The Institution of Engineers (India) has started to grant Certificate of Competence to the engineers by way of Professional Engineer Certification known as **P.Eng. (India)**.

The Institution of Engineers (India) has a laid down process to certify Professional Engineers after assessing the competency of the engineers as per criteria of eligibility and as per the assessment process.

3. Grouping of Engineering Disciplines

Engineering disciplines include in which bachelors degree or equivalent is awarded. The engineering disciplines in which Certification of Professional Engineer are undertaken at present are as follows: -

- Agriculture Engineering
- Aerospace Engineering

- Architectural Engineering
- Computer Engineering
- Civil Engineering
- Chemical Engineering
- Electrical Engineering
- Electronics & Telecommunications Engineering
- Environmental Engineering
- Marine Engineering
- Mechanical Engineering
- Metallurgy & Material Engineering
- Mining Engineering
- Production Engineering
- Textile Engineering

4. Qualification for Certification as Professional Engineer

4.1 Basic Requirements for certification as Professional Engineer

- i) Bachelor's Degree in Engineering or equivalent recognised by Statutory Authority or Government of India;
- ii) Experience of **5 years** in engineering practice;
- iii) Membership of recognised professional engineering institution / association;
- iv) Maintained continued professional development since graduation at a satisfactory level;
- v) Undertakes to adhere to the Code of Ethics;
- vi) Makes a formal application with prescribed fee.

4.2 Exemptions Of Experience for Professional Engineer

- i) Credit up to 12 months of experience may be given if he/she has a Post Graduate Engineering Degree or equivalent, recognized by MHRD/UGC/AICTE;
- ii) Credit up to 24 months of experience may be given if he/she has also obtained a PhD Degree recognised by MHRD/UGC/AICTE;
- iii) Maximum exemption for higher education shall not exceed 24 months including Post Graduation Degree and PhD.

5. Career Progression

5.1 The career progression details, which must be recorded in the Application Form is the applicant's opportunity to demonstrate he has the required engineering experience. He/She should give dates and positions held and should describe the level and limits of responsibility held in each position.

It is acknowledged that engineering works vary greatly in size and complexity and the Committee will not demand complete responsibility for excessively large or complex works. The applicant should have

held responsibility for a part of a large work or all of a small works, part of a complex work or all of a straightforward works.

5.2.1 Qualities Possessed by Professional Engineer

The Professional Engineer applicant is expected to possess the following qualities. The applicant is required to submit a **Self-Appraisal Report** to demonstrate these qualities in the execution of his/her work during his/her service in the different positions in his/her career progression:

- A sound understanding of engineering principles;
- The ability to use relevant existing technology coupled with the ability to locate and use new technologies to benefit his/her work and engineering generally;
- The ability to identify and apply appropriate scientific methods to produce alternative solutions to complex engineering problems;
- Independent judgment in the application of engineering science and knowledge particularly in his/her chosen field;
- The leadership skills to plan, manage and direct the human, material and financial resources required to solve complex problems, often in multi-disciplinary teams;
- A high level of understanding and application of engineering economics;
- Commitment to the public interest in all aspects of work, including health, safety, risk, financial, commercial, legal, environmental, social, energy conservation and sustainability.

5.2.2 Self-Appraisal Report

The report is the main opportunity for the applicant to convince the assessors that he/she possesses and has been consistently demonstrating in his/her work performance, the required competence. It should, therefore, not simply be a narrative of activities carried out by the applicant but must describe the “why and how” of the work activities. It should also indicate the applicant’s involvement and the role he/she played in the process. The report will be expected to demonstrate that the applicant understands the underlying engineering, economic and management principles behind the work activities. Ideally the **Self-Appraisal Report** would include and center on significant engineering work undertaken by the applicant demonstrating his own contribution in meeting the required qualities. The **Self-Appraisal Report** should be comprehensive and concise and should be submitted in the prescribed format.

For renewal applications, the applicant should give details of his/her professional activities during 60-month period of the last certification. This is in the form of a **Self-Appraisal Report** should be written in the same spirit as mentioned above.

5.2.3 Nominations:

Any application for PE must be supported by at least two nominators, who are either Fellows of IEI /Fellows of any other recognised professional engineering institutions or have been Professional Engineers of IEI for at least 5 years. The nominators are expected to assess the application as per the requirements of the certification. The nominator must give an undertaking that they know the applicant personally and be convinced in every respect that he/she is a fit and proper person to be certified as Professional Engineer.

The nominator will be required to complete a **separate confidential form** giving their own impressions of the applicant and reasons why they consider him/her to be a fit person to be certified as Professional Engineer. This confidential document shall be submitted separately to the PE Cell, IEI HQ, Kolkata 700020.

Nominators’ separate confidential reports are not applicable for renewal of certification.

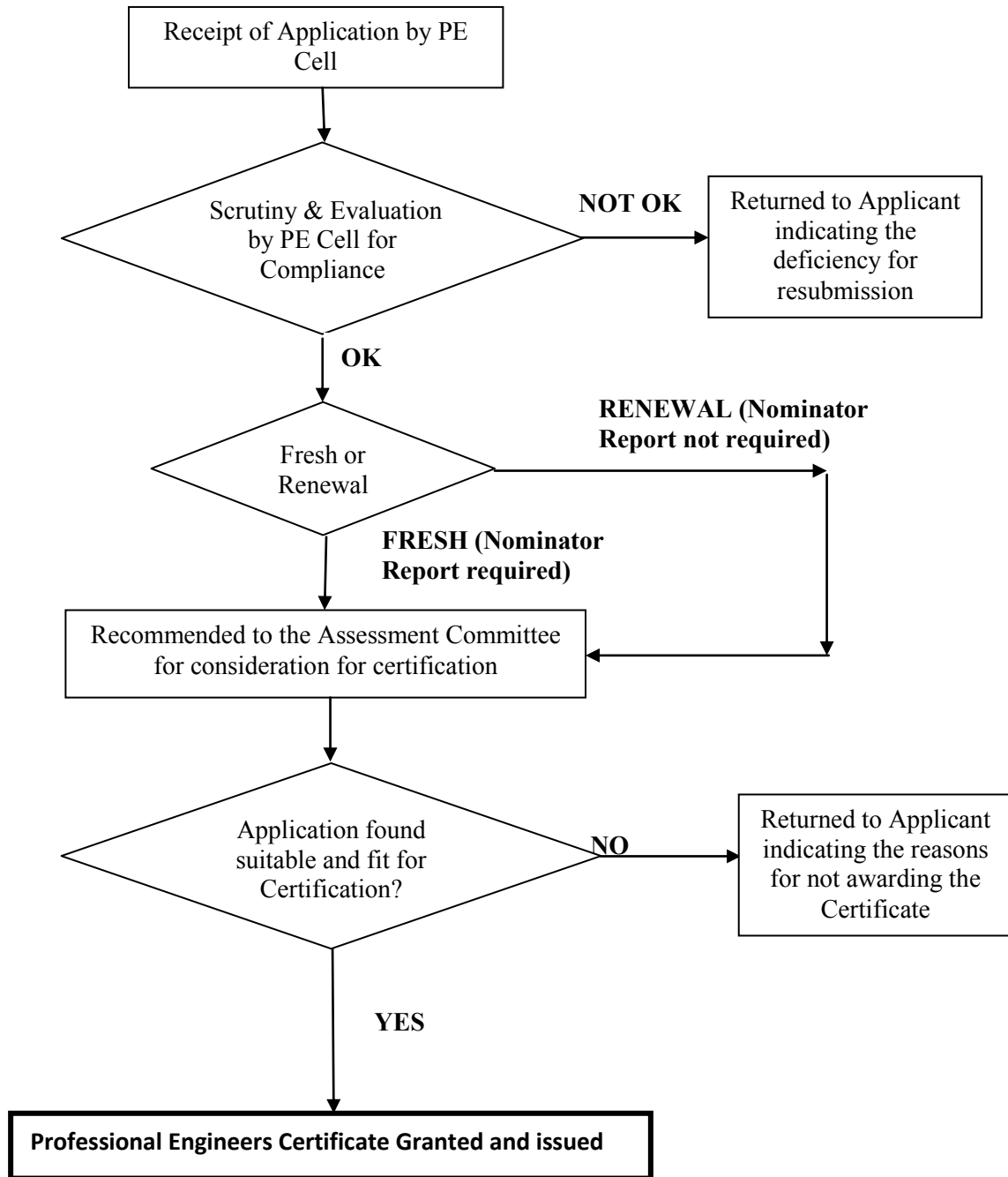
6. **Assessment & Approval Procedure for PE (India)**

The **Assessment and Certification process** for the application received by the PE Cell, in the prescribed format is as follows:

- **Scrutiny and Evaluation by the PE Cell in the Structured Format based on the Qualification, Year of Experience, CPD Requirements, Self appraisal and Nominator's Reports.**
- **A Committee consisting of the Chairman of the respective Division Board and eminent expert of the particular discipline will further assess evaluation report by the Secretariat, verify the documents, and give their final recommendation for approval.**
- For application from very senior persons, the Certificate for PE may be awarded based on their lifetime achievements. The documents should be sent to the Assessment Committee for review.

A Flow Diagram given next indicates the above process:-

FLOW DIAGRAM FOR CERTIFICATION OF PROFESSIONAL ENGINEER (INDIA) PROCESS



7. Evaluation of Competency

- The competence of a Professional Engineer defines his/her capability to perform a given function using a combination of general and engineering knowledge and skills to optimize the application of existing and emerging technology;
- A competent professional engineer's expected level of performance will depend upon his/her field of specialisation. Specifically, it may include the following:
 - Know the systems techniques, practices and procedures followed in management of engineering activities and project;
 - Provide technical and commercial leadership in solving and managing engineering problems relating to the field of specialization;
 - Have proper understanding of management of resources, legal and contractual issues, cost-cutting and efficiency improvement measures, safety, health and environment safeguards, development of human resources and service to the society;
 - Use effective communication and inter-personnel skills to deal with human matters and business issue;
 - Commit to abide by the established professional Code of Ethics;

The major emphasis shall be on evaluating the relevance of learning to the profession rather than mere knowledge accumulation. Based on the documents submitted with the application, his/her case is assessed to decide for Certification.

7.1 Evaluation of Continuous Professional Development

The **Continuing Professional Development** programme includes '**Technical Educational Knowledge Update**' through added qualifications; and '**Professional Expertise and Management Skills Upgrade**' through additional training and experience. Each of these categories can be further broken down into significant parts and each part can then be assigned weightage and achievement value. The quality and quantity of IE (India) Continuing Development Programme shall be assured by the development assessment method indicated below. It is the aggregate of Credit Hours earned in **5-years** that will determine as to whether a P Eng has secured at least **75 Credit Hours during preceding 5 years from the date of application for fresh applicants and 125 Credit Hours within his/her five years certification validity period for renewal. For fresh applicant MTech/PhD/Other Post graduate course done earlier than preceding 5 years will also be considered for CPD.**

The hours of an applicable CPD are counted by multiplying the actual hours of CPD by the Weight Factor, which indicates the extent of effect of each CPD activity; refer **Annexure – I** for details.

- ❖ Every Professional Engineers will have to plan for a period of five years cycle and will have to cover an average of **125 hours of CPD** in each of the cycle for renewal.
- ❖ The record of CPD activity will have to maintain in CPD record book provided by IEI for this purpose **(for Renewal)**.
- ❖ The number of Credit Hours will be calculated by multiplying the number of hours actually spent for the CPD activities by a pre-determined weighted factor.

7.2 **Renewal of PE Certification –**

Renewal of certification for further period of **60 months** may be effected 6 months prior to & not later than 6 months after the date of expiry of the previous certification.

Such applicants shall be assessed for :-

- (a) **Self-Appraisal Report** giving details of professional activities during the 60 months period of the last certification.
- (b) Time spent in activities related to **Continuing Professional Development (CPD)**.

8. Professional Engineer's Seal

A Professional Engineer shall have a seal of his/her own as per design approved by the PE Cell which shall have following information –

Name of the P Eng(I)
P Eng(I) No.
Issuing Authority
Discipline
Valid up to

This seal must be affixed on the drawing/design/report/ certification certified by him/her.

P Eng.(I) shall be responsible for civil / criminal liability for the losses/ damages suffered by the user of his/ her services if it is found that the losses / damages have arisen out of wrong certification.

9. FEE:

| Sl. No. | Application Type | Fee for Applicants from India & Nepal. (including GST) | Fee for Applicants from other Countries. |
|---------|------------------|--|--|
| | | INR | US \$ |
| 1. | PE Fresh | Rs.11,800.00 | \$ 300.00 |
| 2. | PE Renewal | Rs.9,440.00 | \$ 250.00 |

9.1 REFUND POLICY:

If the candidate withdraws himself/herself from the certification process or if the candidate does not meet the requirement or does not submit the documentary evidences against the requirement he will be given 03 reminders after which his/her file will be closed and he/she will be entitled to refund of Rs 7000/- (for Fresh) and Rs 5000/- (for Renewal).

Application, complete in all respects, is to be sent to the PE Cell, 4th floor, (Membership Department), The Institution of Engineers (India), 8 Gokhale Road, Kolkata-700 020 along with requisite fee in form of Demand Draft drawn on any scheduled bank in favour of “**The Institution of Engineers (India)**” payable at **Kolkata**.

For more information please visit our website: www.ieindia.org
Through home page Professional Engineer.

E-mail: pe@ieindia.org

Phone:033-40106275/232

Contact Person: Sudeep Chakraverty, Assistant Director (Technical)

Mob:8961080218

Continuous Professional Development For Professional Engineers Certification

| Classification | Type | Applicable CPD Program | CPD Weight Factor (Multiplier)-M | Applicable Hours (H) | Credit Hours Obtained (M x H) | Remarks |
|---|------|--|----------------------------------|---|-------------------------------|--|
| Formal Education Upgrade In Engineering / Management duly recognized by BFC (Upper limit) | (1) | Doctorate | 2 | 30 | | All achievement shall be supported with records and certificates. Limit for total of all = 60 hrs for 5 years (For fresh applicant credit will be given even if done prior to limit of 5 years) |
| | | Post Graduate Degree | 2 | 25 | | |
| | | Post Graduate Diploma | 2 | 20 | | |
| Formal Education Upgrade in Engineering / Management. | (2) | Post Graduate Correspondence / Certified online courses offered by reputed Institutes /Organisations | 1.5 | 20 | | All achievements shall be supported with records and certificates. Limit for total of all = 75 hrs for 5 years |
| Authoring Books | (3) | Authoring books in field of specializations published by a reputed publisher (having ISBN No.) | 2 | 20 | | |
| | | Contribution in Authoring any Chapter of books published by a reputed publisher | 1 | 0.5 hrs for each chapter | | |
| Continuing Education and Training Activities (No limit) | (4) | 1. | 0.5 | Actual hours of attendance | | |
| | | 2. | | | | |
| | | 3. | | | | |
| Presentation Papers and other Activities (No limit) | (5) | Participation in CPD related lectures, symposium, studying tour, National and International conferences etc. | 0.5 | Actual hours of attendance | | |
| | (6) | Delivered Lecture (being invited) or Symposium Panelist | 1 | Actual lecture hours | | Lectures exclude routine teaching at institutions and university |
| | (7) | Participation in an academic meeting of reputed Forum/Institute/ Organisation | 1 | Hours spent at an academic meeting | | |
| | (8) | Paper publication in Journal or presentation of paper in National / International Conference with ISSN Code/Patent | 1 | 5 to 10 hours to write one report | | Subject to limit of 20 hours per year |
| | (9) | Writing Technical Report (if confidential undertaking to be given by the applicant) | 1 | | | |
| | (10) | Attending an Expert committee meeting e.g. Selection Committee Meeting like NIT, IEEE etc. | 0.5 | | | This is applied only when an applicant participates in active discussions (such as at round-table) Subject to limit of 10 hours |
| | (11) | Part of Professional contribution such as Design, Research & Development, Project Management in the field of Engineering & Technology | 1 | Hours spent for professional contribution | | |

- Maximum no. of hours that can be claimed in respect of each of the category of CPD are indicated against each category. CPD hours have to be claimed from at least 3 categories and total no. of hours claimed from each of the category should not be less than 5 (five) hours.
- Every Professional Engineers will have to plan for a period of five years cycle and will have to cover an average of, **75 hours for Fresh** and **125 hours for Renewal**, of CPD in each of the cycle.
- The record of CPD activity will have to maintain in CPD record book provided by IEI for this purpose.
- The number of Credit Hours will be calculated by multiplying the number of hours actually spent for the CPD activities by a pre-determined weighted factor.