



Date:

To: Reference's Name:
Home Address:
City, State and Zip or Postal Code:
Country:

Dear _____ :

(Applicant's Name) is applying for certification as a Systems Engineering Professional with the International Council on Systems Engineering. The certification process requires a formal application of intent that describes the applicant's education and experience, plus validation of the experience by qualified references. The applicant has identified you as a reference who will provide information to validate his or her Systems Engineering skills and experience.

The certification application review team relies heavily on the information provided by references in their determination to recommend an applicant to go further in the process. Please provide ample information, using the attached form (Form 4B – Reference's Comments and Recommendation on CSEP Application), to describe your systems engineering experience and to provide information about the experience and capabilities of the applicant. The form contains shaded areas for your inputs. The shaded rectangular areas in the form are for you to type or paste inputs. The rectangular shaded areas will expand to accommodate your text. The shaded square boxes can be activated with a click of your left mouse button to insert (or remove) an "X" in the square shaded boxes. The form is protected to prevent modifications to the form. Please return the form as a Microsoft Word document; do not convert it to any other format, such as PDF.

Please carefully provide all of the information requested in the four major sections of the form as follows:

- **Applicant's Information**
Provide the applicant's name and address, if not already noted.
- **Reference's Information**
 - Provide your address and contact information so that the review team can contact you if additional information is needed.
 - Provide information about your own background and experience in systems engineering. This will help the review team ascertain that you are a qualified reference. Please describe the type and number of years of systems engineering work that you have done in addition to the positions that you have held. **Note: the boxes provided for your input will expand to accommodate the amount of information that you supply; the size of the empty boxes is not an indication that limited input is expected.**
 - Just listing your prior position titles is not adequate evidence to substantiate your systems engineering experience and credibility as a reference.



- **Reference's Comments on Applicant**

Provide the following information on the applicant:

- How long you have known the applicant
- Your business relationship with the applicant, (supervisor, co-worker, etc.).
- Provide detailed, non-perfunctory, textual account of the applicant's systems engineering activities, functions and tasks and experience based on your personal knowledge. You may wish to consult the attachment that contains some standardized definitions of systems engineering functions. Please describe the full period of the applicant's experience of which you have knowledge. The CSEP designation is for systems engineers who have demonstrated **fundamental systems engineering knowledge and skills**. It is not necessary to address the ability of the applicant to lead all SE activities on a major program/project. **Note: the boxes provided for your input will expand to accommodate the amount of information that you supply; the size of the empty boxes is not an indication that limited input is expected.**
- The length of time of your direct knowledge that the applicant has performed these systems engineering activities, functions, and tasks.

- **Reference's Recommendation on Applicant**

In this concluding section, mark the block with your recommendation on this applicant and provide a summary statement supporting the reason for your recommendation.

Your evaluation of the applicant is vital to our evaluation. We will not provide any information in your response to the applicant to protect your privacy. You may provide a copy of your response to the applicant, if you wish. Please do let the applicant know when you have submitted your comments and recommendation to the INCOSE Certification Office.

To expedite processing, it is preferred that you submit your response to us electronically at secert@incose.org. Alternately, you may submit a paper response to us via regular mail at:

**Certification Program Office
INCOSE
7670 Opportunity Road, Suite 220
San Diego, CA 92111**

We request that you provide your response within two weeks of the date of this letter. Please let us know if you will not be able to respond during this time period, if you need more time, or you do not want to submit a recommendation.

On behalf of INCOSE and (Applicant's Name), thank you for your response.

Sincerely,

David Walden, CSEP
INCOSE Certification Program Manager



Attachment: Experience Applicable for Certification

Applicants for certification as a Systems Engineering Professional are required to submit evidence of a minimum of five years of systems engineering experience in addition to having a technical Bachelor's degree, or equivalent. Applicants who have the minimum five years of SE experience but who lack a technical degree may submit an additional five years of engineering experience with a non-technical degree, or an additional ten years of engineering experience in lieu of no degree. (The additional years of engineering experience may, but are not required to, be in systems engineering.) Systems engineering experience to satisfy the minimum requirements for initial certification includes performing systems engineering functions, but does not include time spent in receiving a technical education, or teaching full time.

Systems engineering functions include but are not limited to the following:

1. **Requirements Engineering:** analyze customer and stakeholder needs, generate/develop requirements, perform functional analyses, derive requirements, ensure requirements quality, allocate requirements, control requirements, maintain requirements database, develop and implement Requirements Management Plans, develop measures of effectiveness and performance
2. **Risk and Opportunity Management:** develop and implement Risk and Opportunity Management Plans, identify risk issues and opportunities, assess risk issues and opportunities, prioritize risks and opportunities, develop and implement risk mitigation and opportunity achievement plans, track risk reduction and opportunity achievement activities
3. **Baseline Control:** develop and implement Configuration Management Plans, establish and update baselines for requirements and evolving configurations/products, establish and implement change control processes, maintain traceability of configurations, participate in Configuration Control Boards, participate in configuration item identification and status accounting, participate in functional and physical configuration audits
4. **Technical Planning:** identify program objectives and technical development strategy; prepare Systems Engineering Management Plans, program Work Breakdown Structures, product Breakdown Structures, Integrated Master Plans, and Integrated Master Schedules; identify program metrics including product technical performance measures and key performance parameters, identify program resource needs in terms of equipment, facilities, and personnel capabilities
5. **Technical Effort Assessment:** collect, analyze, track, and report program metrics including product technical performance measures and key performance parameters; conduct audits and reviews; assess process and tool usage compliance; conduct capability assessments; recommend and implement process and product improvements
6. **Architecture/Design Development:** identify baseline and alternate candidate concepts and architectures, prepare Trade Study Plans, conduct and document trade studies, evaluate and optimize candidate concepts and architectures, prepare system/solution description documents
7. **Qualification, Verification, and Validation:** develop and implement Qualification, Verification, and Validation Plans; develop verification requirements and pass/fail criteria;



- conduct and record results of qualification, verification, and validation efforts, and corrective actions; prepare requirements verification matrix and qualification certificates
8. **Process Definition:** define enterprise processes and best practices, tailor enterprise processes for program/project applications
 9. **Tool Support:** specify requirements for, evaluate, select, acquire, and install SE computer programs/tools
 10. **Training:** develop and implement Training Plans, develop and give training courses on processes and tools
 11. **Systems Integration:** define technical integration strategy, develop Integration Plans, develop integration test scripts, develop and implement integration test scenarios, conduct and document integration tests, track integration test results and retest status
 12. **Quality Assurance:** develop and implement a Quality Assurance Plan, perform quality audits, report quality audits, define and track quality corrective actions
 13. **Specialty Engineering:** develop and implement Specialty Plans as part of, or an addendum to, the Systems Engineering Management Plan to cover such specialties as reliability, maintainability, supportability, survivability, logistics support, security, safety, human factors, electromagnetic environmental effects, environmental engineering, packaging and handling, etc.
 14. **Other:** describe other functions that you have performed and can justify as system engineering activities.