Criteria for

Certified Professional for Software Architecture (CPSA)®

Expert Level

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Training Provider

A training provider must fulfill the following criteria to get the accreditation from iSAQB:

Criterion	Details	Evidence
iSAQB FL or AL	The organization must be accredited for the Foundation Level and/or the Advanced Level of the iSAQB®.	iSAQB® has a list of all the organizations that are accredited.
Topic moderator	The training provider must have at least one accredited topic moderator.	The topic moderator has been accredited successfully.

Topic Moderator

The training provider provides a topic moderator for the topic working group.

A topic moderator must fullfill the following criteria to get the accreditation by iSAQB®.

Criterion	Details	Evidence
Process knowledge	A topic moderator must have knowledge of the process of expert level certification.	A member of the iSAQB® working group "Expert Level" cunducts an inverview with the applicant and checks the requested knowledge.
Social skills	A topic moderator must have social skills to be able to manage a group.	The applicant must prove one or more of the following competences: • The applicant has taken training courses or seminars, such as iSAQB® trainings or lectures at a university. • The applicant must substantiate that he has held the position of group leader for a minimum of one year, such as in an association, club, or development team.
Knowledge	A topic moderator must know enough about software architecture.	The applicant must meet the following requirements: • The applicant has at least the CPSA® Foundation Level certification. • The applicant has been working as software developer or software architect for five years.

Criteria for a new Topic

A new topic must meet the following criteria:

Criterion	Requirement	Description
Originality	Must	Will the topic group provide new knowledge or insights to the community? Is the topic not yet completely and publicly worked on (e. B. Wikipedia)?
Relevance	Must	Is the topic interesting for a larger group of people?
Innovation	Must	Does the topic generate new ideas and new knowledge that are of general interest?
Creativity	Shall	Does the topic show creativity, e.g. through synergies, analogies, ideas?
Effectiveness	Shall	Is it to be expected that the work in software architecture can be simplified or accelerated in the future by working on the topic?
Problem solving	Must	Can recurring and previously insurmountable problems in the software architecture be solved by topic processing? Examples: • Improve communication between management and software architects • Introduction of new methods, like e.g. architecture management, Domain-Driven Design, Green-IT, …

Criteria for New Applicants

The CPSA-Expert Level (CPSA-E) is the highest qualification level awarded by the iSAQB. It is aimed at highly skilled and experienced software architects. The requirements for applicants are demanding: they must demonstrate long-term experience, have a clear area of expertise, be capable of developing innovative approaches and solution strategies, and actively contribute to the professional community.

To be eligible to participate in a topic group, applicants must satisfy the following criteria:

Knowledge and Practical Experience

Applicants justify their suitability for the topic by summarizing their knowledge and practical experience.

Criterion	Description
Advanced Level Certifications	Applicants must confirm that they have the expert level certification, or they will get it until the topic group submits their results.
Practical Experience	Applicants can demonstrate at least 7 years of professional experience in the role of software architect within complex software projects. In particular, experience in architecture work that spans systems, domains, or organizational boundaries is required.
Knowledge	A solid understanding and practical application of the core concepts of software architecture, as outlined in the iSAQB curricula for the Foundation and selected Advanced-Level topics. Specialization typically takes place in specific focus areas such as Domain-Driven Design, Cloud Architecture, Architecture Evaluation, Documentation, or Modernization, depending on the individual's expertise and project context.
Knowledge Transfer and Community Contribution	Proof of knowledge transfer or community contribution, such as training and mentoring less experienced developers or architects, leading architecture or development teams, co-developing in open-source projects, as well as through publications or presentations.
Communication Skills	Applicants must be able to communicate complex matters clearly and understandably.

Organization and General Conditions

Criterion	Description
iSAQB® can publish results	Applicants must agree that iSAQB® is allowed to publish and exploit the results of the topic group.
Willingness to travel	Applicants must confirm that they are willing to travel at their own expense to work together in the topic group.
Disclosure of contact data	The applicants grant permission to iSAQB® to forward the following contact details to the other members of the topic groups: first name, second name, e-mail address, and telephone number.

Why Are These Requirements Important?

The CPSA-Expert Level not only validates technical expertise but also recognizes the ability to serve as a thought leader and expert within the software architecture community. Applicants must demonstrate their capacity to contribute to the evolution of the profession, going beyond architectural practice, and show that they can tackle complex challenges in dynamic and demanding environments.

The following criteria may come into operation in the future

iSAQB® may accept individuals as candidates for the expert level if they meet one of the following requirement:

- People who are distinguished experts on the topic.
- Members of iSAQB® who are not permitted to participate in the iSAQB® Advanced

Level Certification since they know the examination question.

The iSAQB® strategy council and the members of the iSAQB® working group "Expert Level" make a majority decision on whether or not a person meets one of the stated requirements.

iSAQB® is able to actively invite luminaries to participate in a topic group and refund the cost.

The experts must work in the chosen topic group as well. Nobody gets a certification without active and successful work in a topic group.

Criteria for a Roadmap

Criterion	Requirement	Description
Objective, mission	Essential	• Are the objective and mission of the topic working group described comprehensibly?
Topic working group	Essential	• Are the contact details of all members of the topic working group stated?
Procedure	Essential	• Are the roles and tasks of the members of the topic working group described? • Is a timetable with milestones provided? • Are the times and locations for the optional in-person meetings stated? • Are the times and resources for the virtual meetings stated? • Are the tools for electronic communication listed? • Are work packages and responsibilities defined? • Is the review process determined?
Literature	Essential	• Is there a bibliography? • Does the bibliography comprise at least 7 sources? • Are the sources of academic value?
Results	Essential	• Is the mandatory article discussed? • Is at least one additional result stated (e.g., instructions, example, …)? • Are the form and structure discussed for each result? • Does the topic working group attempt to presentthe results at at least one conference? • Does the topic working group attempt to publish the results in at least one trade publication?

Criteria for Participation

Criterion	Requirement	Description
Time tracking	Mandatory	The members of a working group must record their activities in a central list that can be viewed by every group member and must at least document this information for each activity: • Date and duration • Activity • Work result • Names of members involved in the activity.
Validation	Mandatory	At meetings, the members validate whether the recorded activities are plausible.
Total working time	Mandatory	Each member of a working group must have worked at least 40 hours in the working group.
Deviation from the group average	Mandatory	A mean value provides information on how many hours on average each member has worked in the working group. Each member must have worked at least 60% of the group average.
Different types of activity	Mandatory	A member may only count up to 20% of the hours for organizational activities.
Three types of activity	Mandatory	Each member must have performed at least three different types of activity, including • Organization • Research • Creating a result • Creating a presentation • Writing an article for a specialist journal • Create conference contribution • Presentation at conference
Travel time does not count	Must	Travel time does not count as an activity.

Formal Criteria

Criterion	Requirement	Description
Article	Essential	Does the article have the following structure and content? 1. Title a. Does the title suit the topic discussed? 2. Authors a. Are the authors named? b. Are the authors' e-mail addresses listed? 3. Abstract a. Is the problem described briefly? b. Does the abstract describe the main theses or results? c. Is the description short and understandable? 4. Introduction a. Does the introduction describe the current state of knowledge? b. Is the motivation discussed? c. Is there a description of the existing knowledge gaps that are to be filled by this academic article? d. Is there a description of the research questions that are to be answered in the article?

Criterion	Requirement	Description
		5. Main section (chapter name(s) can be chosen freely) a. Materials and methods i. Is there a description of the information sources? ii. Is there a description of the methodsused to answer the research question? b. Results i. Is there a description of the findings? ii. Are the findings substantiated with sufficient plausible data? c. Discussion a. Is there a description of how the findings are interpreted? b. Is there a discussion of questions that arise from the results? c. Is there a discussion of the impacts that the findings have in practice? 6. Summary a. Is there a brief summary of all of the research questions and their answers? b. Is there a brief discussion of the effects of the findings? 7. Acknowledgments a. Are supporters mentioned? 8. Conflicts of interest a. Are conflicts of interest mentioned? 9. Bibliography a. Is there a list of all of the literature used? b. Is the literature cited correctly?
Additional result	Essential	• Do the form and content fulfill the purpose of the result (e.g., a new pattern according to the pattern language context, problem, solution)? • Is there a comprehensible description of the result? • Is it evident that at least two person weeks were necessary for the creation of the additional result?
Submissions	Desired	• Has the topic working group submitted a talk or a workshop to at least one conference? • Has the topic working group attempted to publish the results in at least one trade publication?

Criterion	Requirement	Description
Experience report	Essential	• Has each member of the topic working group submitted an experience report? • Are all the points in the experience report completed?

Content Criteria

Criterion	Assessment Scheme
Importance for theory and practice	10 - Outstanding importance 08 - Important 06 - Not unimportant 04 - Rather weak importance 02 - Of low importance 00 - Absolutely no relevance
Originality and degree of innovation	10 - An important and meaningful contribution to the topic area 08 - A clear contribution to the topic area. 06 - A small contribution to the topic area. Added value may result from it in the future. 04 - There is better work on this topic. 02 - Already said many times. 00 - Contributes little or nothing at all to the topic area.
Quality of the presentation	10 - Excellently written 08 - Well written 06 - Readable 04 - Should be edited 02 - Still significant work required 00 - Unacceptable