

## ISSECO® – INTERNATIONAL SECURE SOFTWARE ENGINEERING COUNCIL

*Security at the application level is a growing risk to the IT community and one of the biggest challenges of IT security within the next years.*

Today, security vulnerabilities affect almost all vendors and products available on the market. Although the vendors provide security patches free of charge the roll-out of patches produces extra costs and bears the risk of new security vulnerabilities. The everlasting arms race to find security vulnerabilities before an attacker will find them seems not to be the best approach to gain confidence in the security of software. In order to win the race the cause of security vulnerabilities rather than their effect must be eliminated.

Security vulnerabilities may be exploited in order to steal critical enterprise data, to distribute viruses and worms or to sabotage computer systems. Firewalls or Intrusion Detection Systems are not sufficient anymore to avert danger because they cannot prevent attacks on the applications themselves. I.e. a firewall cannot decide whether an input parameter is valid or implies a “code injection” attack. This decision can only be made by the particular application itself. Consequently, possible attacks must be prevented during the development of the application. Unfortunately, the security aspects in the software development life-cycle are usually not given enough attention at the universities or later in business practice in order to counter security vulnerabilities already when they are emerging.

## THE PERSONNEL CERTIFICATION STANDARD

Secure software development demands security-conscious and well-educated software architects and developers.

The new personnel certification standard for secure software engineering provides a qualification to people involved in the software development lifecycle and attests their very best skills to produce secure software. It guarantees knowledge about aspects of security in all phases of the software development lifecycle:

- Requirements Engineering
- Design & Specification
- Programming & Testing
- Evaluation, Distribution & Maintenance

Today, such a qualification is rarely taught at the universities or in trainings on-the-job or off-the-job. ISSECO aims at filling this gap of qualification with the certification as Certified Professional for Secure Software Engineering.

## EXAMINATION AND CERTIFICATION

ISSECO training providers and ISSECO examination providers are independent from each other. All candidates for Certified Professional for Secure Software Engineering will take their exams at iSQL – The International Software Quality Institute. Taking a class of an accredited ISSECO training provider is a prerequisite before being allowed to take the exam. Exams may be taken as part of an accredited training course or taken independently (e.g. at an examination centre).

## TARGET PROFESSIONALS

This personnel certification addresses everyone who is directly involved in the software development lifecycle, i.e.:

- Requirements Engineers
- Software Architects
- Designers
- Developers
- Software Quality Managers
- Software Testers
- Project Managers
- All Related Software Development Stakeholders

No formal entry qualifications – such as work experience or university degree – are required to take an ISSECO training course and the examination. However, some knowledge on information technology and basics in quality assurance are expected from a candidate for Certified Professional for Secure Software Engineering.

## FUTURE PROSPECTS

Besides the ISSECO foundation level certification, there shall be further advanced levels defined later, too. These advanced levels may address programming language specific security matters, IT security management or other topics. There might be also a security auditor training for assessing software development with respect to security.

## WHO IS ISSECO?

ISSECO is a non-for-profit organization whose members consist of renowned experts in the software security area. ISSECO is supported by a number of people and organizations having interest in enhancing the level of security qualification in the software industry. The founding organizations of ISSECO are:

- Diaz & Hilterscheid
- FH Nürnberg
- Fraunhofer IESE
- iSQI
- SAP
- Secorvo
- Secunet
- SELA
- SQS
- VirtualForge

## MEMBERSHIP

Membership is ad personam, the membership is free, though it has to be approved by the board. Applications can be sent to the ISSECO board under [board@issec.org](mailto:board@issec.org).

Companies can support the activities of ISSECO, and will be named consequently in all publications. Support periods are yearly, and companies must reapply for support every year. Support fee is 1000 €. Companies supporting ISSECO have access to the syllabus.

## ACCREDITATION

Current accredited training providers who offer trainings for the Certified Professional for Secure Software Engineering include Diaz & Hilterscheid, Fraunhofer IESE, Secorvo, Secunet, SELA, SQS and VirtualForge. Other training providers are welcome to support the Certified Professional for Secure Software Engineering in the future. New training providers must be accredited by the ISSECO accreditation board.

## SUPPORTERS



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