

# Exam System – How to Guide for Self Assessment and Exam Preparation

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**Abstract.** The exam system from ISCN supports different roles of users and different exam types. This How-to-Guide describes how to prepare for an exam using the skills browsing and self-assessment functionality.

**Copyright Statement:** The exam system software has been developed by I.S.C.N. Ges.m.b.H since 2001 and is used by various certification and industry associations. The skills browsing and exam portals are EuroSPI and ISCN supported and since 2022 the property of EuroSPI GmbH.

## 1 Main page

In case of DRIVES / ASA (Automotive Skills Alliance) you find the main page at:

[https://www.iscn.com/projects/exam\\_portal/index\\_asa.php](https://www.iscn.com/projects/exam_portal/index_asa.php)

From the main page you have different options:



**Learning:** In cooperation with the EuroSPI Academy (<https://academy.eurospi.net>) A course system has been set up where you can attend courses and exercises for a selected set of job roles online. For those courses exams can be taken using the exam system. There are additional job roles (e.g. integrated by a cooperating certifier) with no training in the EuroSPI academy for which exams are being supported.



**Exams:** When selecting this icon you come directly to the exam login, or you can register for an exam for a specific job role.



**Skills Browsing:** When selecting this icon a skills tree browsing web site opens and you can select a job role and search all underling units (areas of skills), elements (specific knowledge required) and performance criteria (abilities of the learner achieved in the training).

## Skill & Exam Portal



Since 2001 the examination service has been used in more than 24 countries, more than 10000 participants have used this portal to perform exams and 7800 certificates have been issued.

Login

Register

Figure 1: Main Page

## 2 Skills Browsing

Skills browsing allows you to see the hierarchy of skills required grouped into units (areas of skills), elements (specific knowledge required) and performance criteria (abilities of the learner achieved in the training).

Test questions have been designed per performance criteria and the test is generated with a random generator per element.

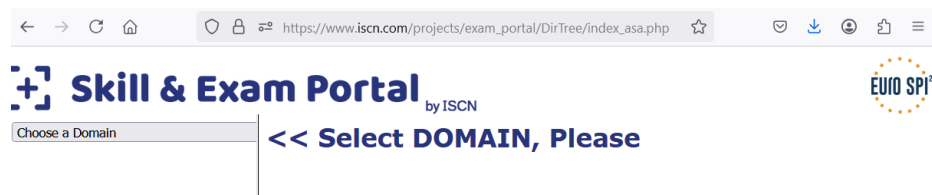


Figure 2: Skills Tree Main Page

First select a job role, then the units are displayed. Then select a unit and the elements are displayed. And finally, you select an element and the performance criteria are displayed.

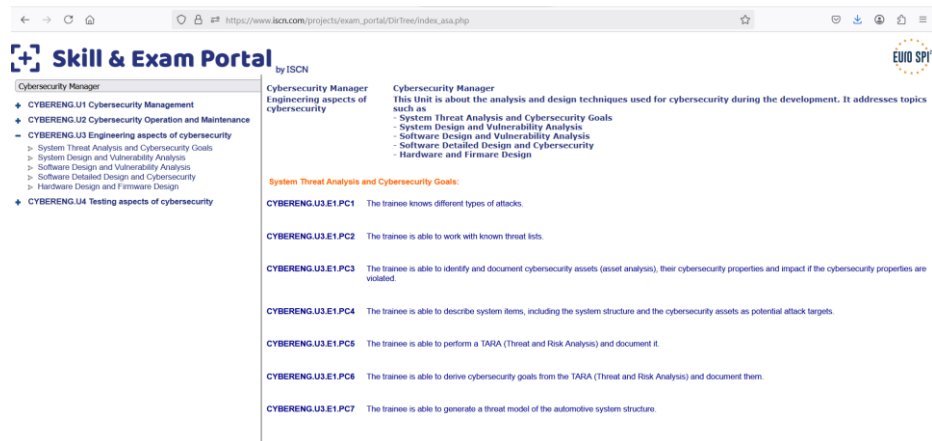


Figure 3: Skills tree after selection of a job role and selecting an element

### 3 Exam Registration or Login

**Login:** If you have already registered for this or another job role exam before in the ISCN exam system and you want to participate in an exam you know already your credentials and you can login. **In this case do not register again since the system will make you a separate user account again.**

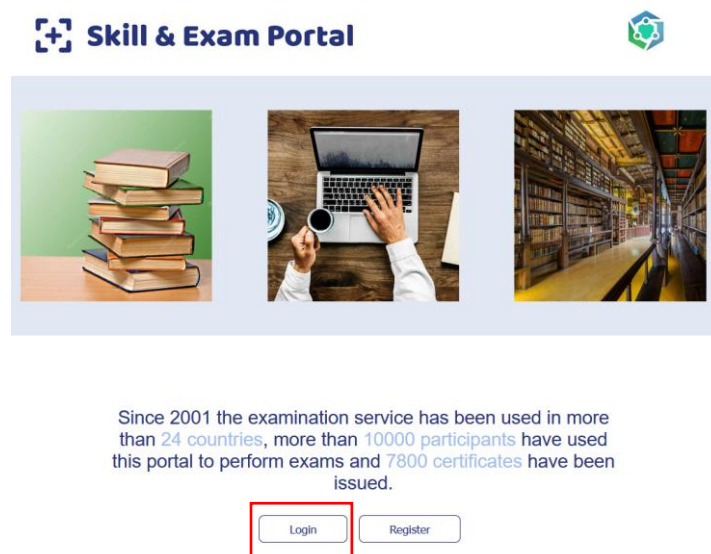


Figure 4: Login

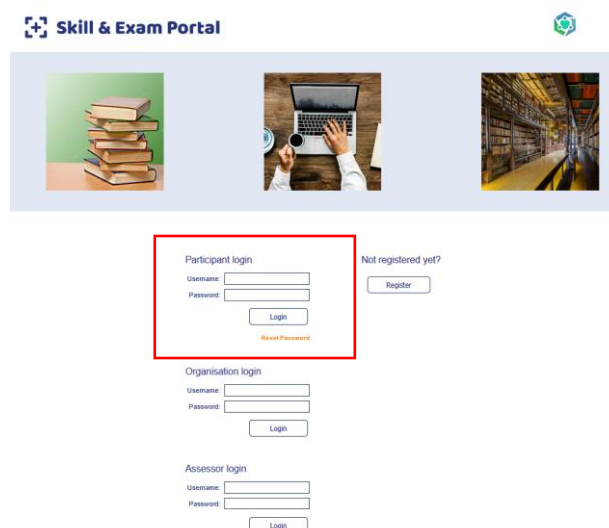


Figure 5: Participant Login

**Register:** If you want to register for a new job role and exam (even if you have an account already for another job role) you select REGISTER. Register will guide you through a number of dialogues to select the job role, and to select the exam organisation, and to enter more details required to issue an exam result and certificate at the end.

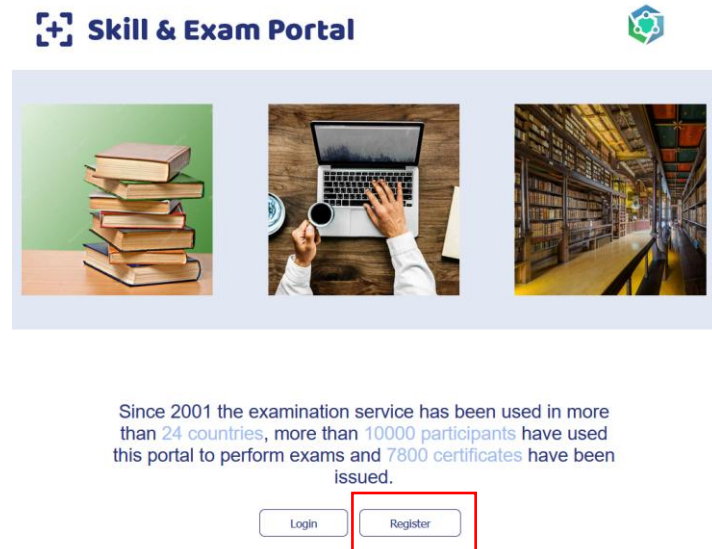


Figure 6: Register

#### Steps to register

1. Call REGISTER (Figure 6)
2. Step 1: Choose Job Role / Domain (Figure 7)
3. Step 2 - Choose Exam Organisation (Figure 8)
4. Step 3 – Registration (Figure 9)



> Step 1 - Cybersecurity Manager as Domain selected!

Cybersecurity Manager

> Step 2 - Choose Exam Organisation

> Step 3 - Registration

Figure 7: Step 1: Choose Job Role / Domain

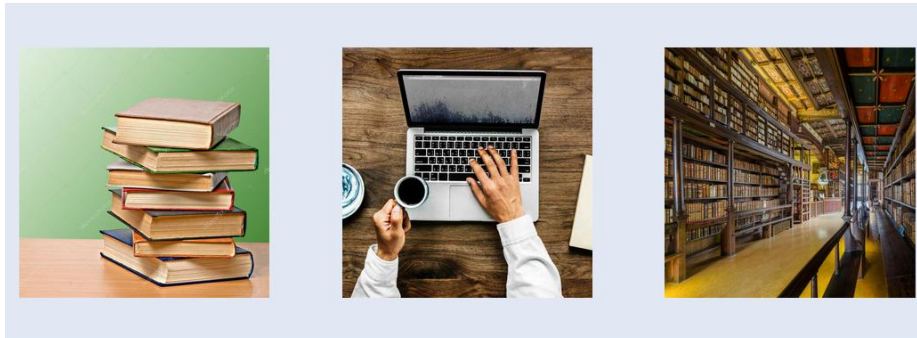


> Step 1 - Cybersecurity Manager as Domain selected!

> Step 2 - Choose Exam Organisation

- Choose an Organisation -  
- Choose an Organisation -  
ISCN GesmbH  
MSG Plaut  
AVL  
TU Graz

Figure 8: Step 2 - Choose Exam Organisation




- Step 1 - Cybersecurity Manager as Domain selected!
- Step 2 - ISCN GesmbH as Exam Organisation selected!
- Step 3 - Registration

Figure 9: Step 3 – Registration

**I am a new user.** If it is the first time you create an account for a job role in the exam system you must enter your personal details. To issue a certificate (following the guidelines outlined by standards for personal certification (e.g. ISO 17024) certificates can only be issued to identifiable persons (see Figure 10).

**I already have an account.** If you already have an account from a previous exam or by registering for another job role at an earlier stage you can use the login details of your account. This way the new job role and exam is also linked to the already existing account (see Figure 11).




> Step 1 - e-Powertrain Engineer as Domain selected!  
 > Step 2 - ISCN GesmbH as Exam Organisation selected!  
 > Step 3 - Registration

Firstname:	<input type="text" value="Exam"/>	Username:	<input type="text" value="examdemo21"/>
Lastname:	<input type="text" value="Demo"/>	Password:	<input type="password" value="*****"/>
Company:	<input type="text" value="*"/>	Re-type Password:	<input type="password" value="*****"/>
Address:	<input type="text" value="*"/>	Email:	<input type="text" value="examdemo21@iscn.com"/>
Phone:	<input type="text" value="*"/>		


The ISO 17024 standard for certification of persons requires that data from persons and test evidence are stored because certificates can be issued only to identifiable persons and test results must be logged. If you do not agree, we regret that we cannot provide the test or a certificate as a service to you.  
[Read our full GDPR information here!](#)  
☐ I understand and want to continue.

[Impressum](#) | [Contact](#)
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Figure 10: Entering data in case of “I am a new user” and REGISTER



> Step 1 - e-Powertrain Engineer as Domain selected!  
 > Step 2 - ISCN GesmbH as Exam Organisation selected!  
 > Step 3 - Registration

Username:	<input type="text" value="examdemo21"/>
Password:	<input type="password" value="*****"/> 

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Figure 11: Enter login details in case of “I already have an account” and REGISTER



When you select REGISTER your personal skills account with a skills browsing function opens.

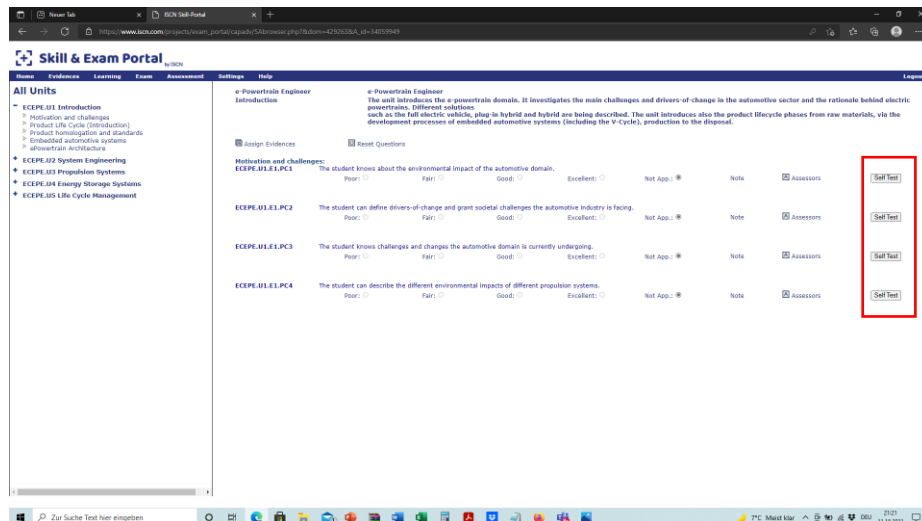


Figure 12: Your private skills account in the exam portal

**Attention: If you logout and later come back to d the exam or further skills browsing, you only need to login (Figure 3).**

## 4 Performing a Self-Assessment

**Self Assessment.** Once you accessed your skills account with the skills browsing function, you can open a specific element and see the list of performance criteria for the element (Figure 11).

Beside each performance criteria you can see a SELF TEST button. When you open the SELF TEST a set of multiple choice questions is offered (Figure 13).

**Multiple Choice Questions.** Each multiple choice question can have one or many correct answers. If a multiple choice question has  $n$  answers from which  $m < n$  answers are correct then each correct answer is  $1/m$  worth. If you find all correct answers you

get  $m \times 1/m = 1$  point. If you tick a wrong answer then you lose all points of that question and get 0 points.

The self assessment tool automatically calculates the scores of all multiple choice questions of a specific performance criteria and sets a rating of poor (0%), fair (33%), good (66%), excellent (100%) for the performance criteria (Figure 14).

**Skill & Exam Portal**

**All Units**

- ECEPE.01 Introduction
  - Motivation and challenges
  - Product Life Cycle (Introduction)
  - Product homologation and standards
  - Embedded automotive systems
  - ePowertrain Architecture
- ECEPE.02 System Engineering
- ECEPE.03 Propulsion Systems
- ECEPE.04 Energy Storage Systems
- ECEPE.05 Life Cycle Management

**e-Powertrain Engineer Introduction**

The unit introduces the e-powertrain domain. It investigates the main challenges and drivers of change in the automotive sector and the rationale behind electric powertrains. Different solutions such as the full electric vehicle, plug-in hybrid and hybrid are being described. The unit introduces also the product lifecycle phases from raw materials, via the development processes of embedded automotive systems (including the V-Cycle), production to the disposal.

**Motivation and challenges:** ECEPE.01.E1.PC1

The student knows about the environmental impact of the automotive domain.

Rating: Poor: 0% Fair: 33% Good: 66% Excellent: 100% Not App.: 0% Note: Assessors: Self Test

**Which of the following areas have an environmental impact caused by the automotive domain?**

- ☐ Buildings and Infrastructure
- ☐ Production and Supply-Chains
- ☐ Operation and Maintenance
- ☐ Decommissioning

**What are the typical greenhouse gases produced by cars?**

- ☐ CO<sub>2</sub> (Carbondioxide)
- ☐ CO (Carbonmonoxide)
- ☐ NO<sub>x</sub> (nitrogen oxides)
- ☐ CFCs Chlorofluorocarbons (FCKW)

**Which emissions by cars are the main reasons for smog?**

- ☐ CO (Carbonmonoxide)
- ☐ NO<sub>x</sub> (nitrogen oxides)
- ☐ PM2.5 (Particulate matter)
- ☐ Breaks and tyre wear particles

**Which emissions by cars are the main reasons for fine dust?**

Figure 13: SELF TEST – Multiple Choice for a Performance Criteria

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Figure 14: SELF TEST – Multiple Choice for a Performance Criteria

**Reset the Self Assessment.** When you select an answer the answer is locked. You can reset and repeat the self assessment by using the ach multiple choice question can reset the entire self test (Figure 15).

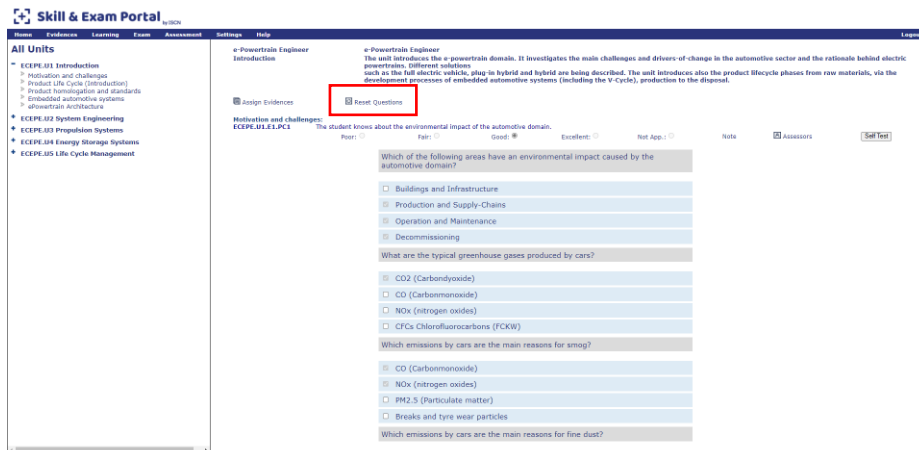


Figure 15: Reset SELF TEST

**Skills Profile per Element.** Your achievements in the self-test can be displayed in form of a skills profile per element. The ratings of the performance criteria are aggregated to a rating of a skills element. You pass the element when you achieved a minimum of 67%.

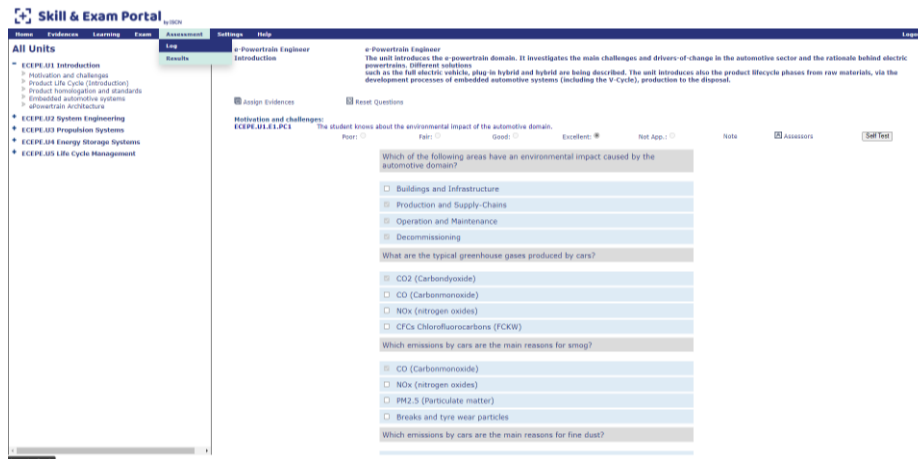


Figure 16: Main Menu ASSESSMENTS - RESULTS

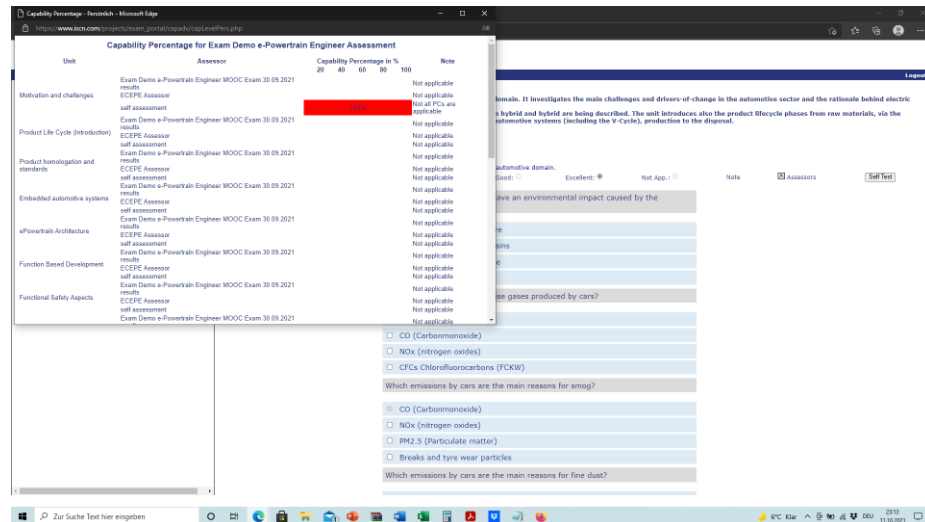


Figure 17: SKILLS PROFILE – Self Assessment

**To prepare for the exam you should repeat the self-test until you achieve minimum 67% in each of the skills elements.**

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