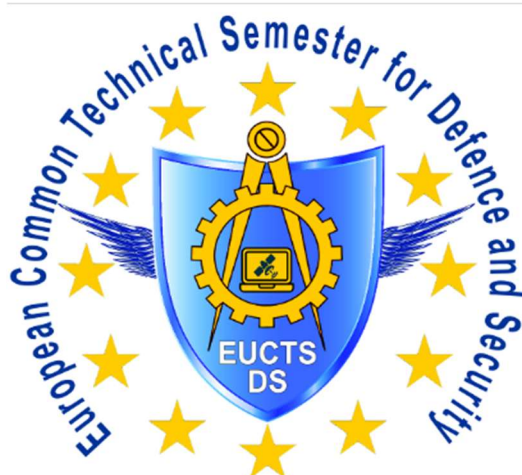




EUROPEAN COMMON TECHNICAL SEMESTER FOR DEFENCE AND SECURITY (EuCTS_DS)

PROJECT NO 2020-1-RO01-KA203-080375



E-LEARNING PLATFORM

O5 - E-learning Platform





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1. E-LEARNING PLATFORM

The e-learning platform was established step-by-step, considering the development phase of the project: Google Drive, Microsoft Teams, ILIAS Platform.

2. GOOGLE DRIVE

While elaborating on the intellectual outputs and preparing the LTTA activities, the project teams decided that the best option is to use an e-learning platform Google Drive, EuCTSds (fig. 1).

Using this facility, the project members shared the Administrative documents, dissemination documents, information about the partners and intermediary results considering the intellectual outputs.

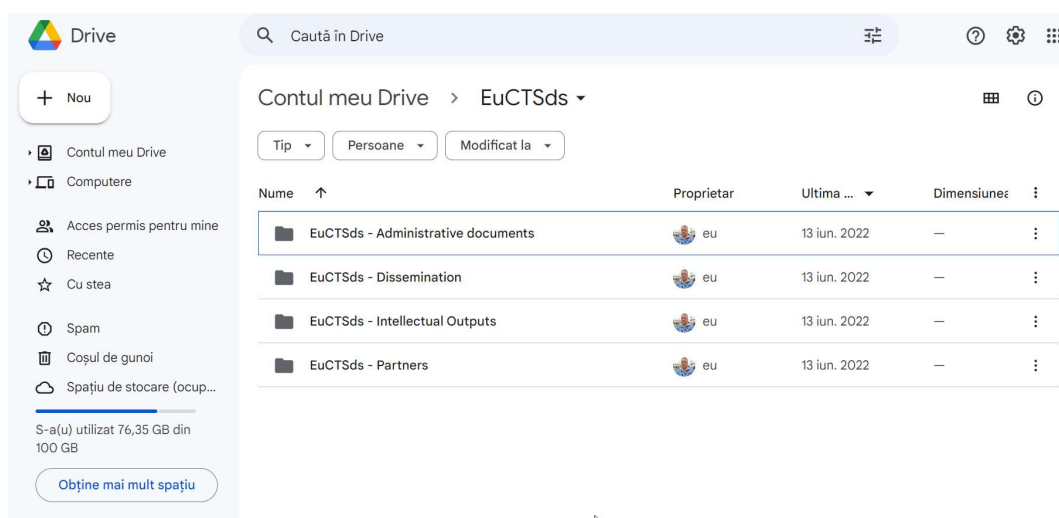


Fig. 1 Google drive for EuCTSds management

Google Drive gives the ability to store documents remotely so that the members of the project can use it in order to be sure that they will not lose another important file again. They can all be stored in one centralised location (the Cloud), meaning any project member can access learning materials anywhere. For example, if someone creates a file that is an integral part of the intellectual output and the individual hard drive crashes, he/she can still view and edit that file through Google Drive.

A great way to boost peer-to-peer interaction is to create group projects uploaded directly onto the Google Drive. Google Docs (offered within Google Drive) can transform any assignment into an interactive and collaborative eLearning experience. Using Google Docs, the learners can leave real-time feedback, communicate with others in the group, and share their insights and opinions via the document or file. For instance, a project member can develop an eLearning project requiring learners to collaboratively solve a real-life problem or revise a document that purposefully contains errors (to test their applied practical knowledge of subjects and skill sets). Group collaboration is an invaluable tool in eLearning, as it allows learners to learn from their peers' knowledge base and experiences.

One of the most significant advantages of Google Docs is that the project members can create documents on any device, even using a mobile phone, and then upload them to the Drive. They can also edit files anywhere, anytime. Even if one project member doesn't have Internet access, he/she can work offline and back up the file once he/she reaches a Wi-Fi hotspot. Therefore, he/she can schedule the time more productively, given free time, such as waiting for a meeting or a break between virtual training events. Likewise, learners will also have access to shared files remotely, which makes learning and collaborating more convenient.

The main advantage of this tool was the accessibility for all the project members to share the documents and modify them in collaborative methods. The main disadvantage is the impossibility of communicating among the members using the same platform. For this reason, the management team decided it would be better to improve this facility using the Microsoft Teams platform.

3. MICROSOFT TEAMS

Microsoft Teams is a collaborative workspace within Microsoft 365/Office 365 that acts as a central hub for workplace conversations, collaborative teamwork, video chats and document sharing, all designed to aid worker productivity in a unified suite of tools. (Matthew Finnegan,2020). Courses using Teams can be 100% online, hybrid, or face-to-face. This tool enables a broader range of instructor and student interactions and allows regular, substantive interaction in online courses (Poston, Apostel, & Richardson, 2019).

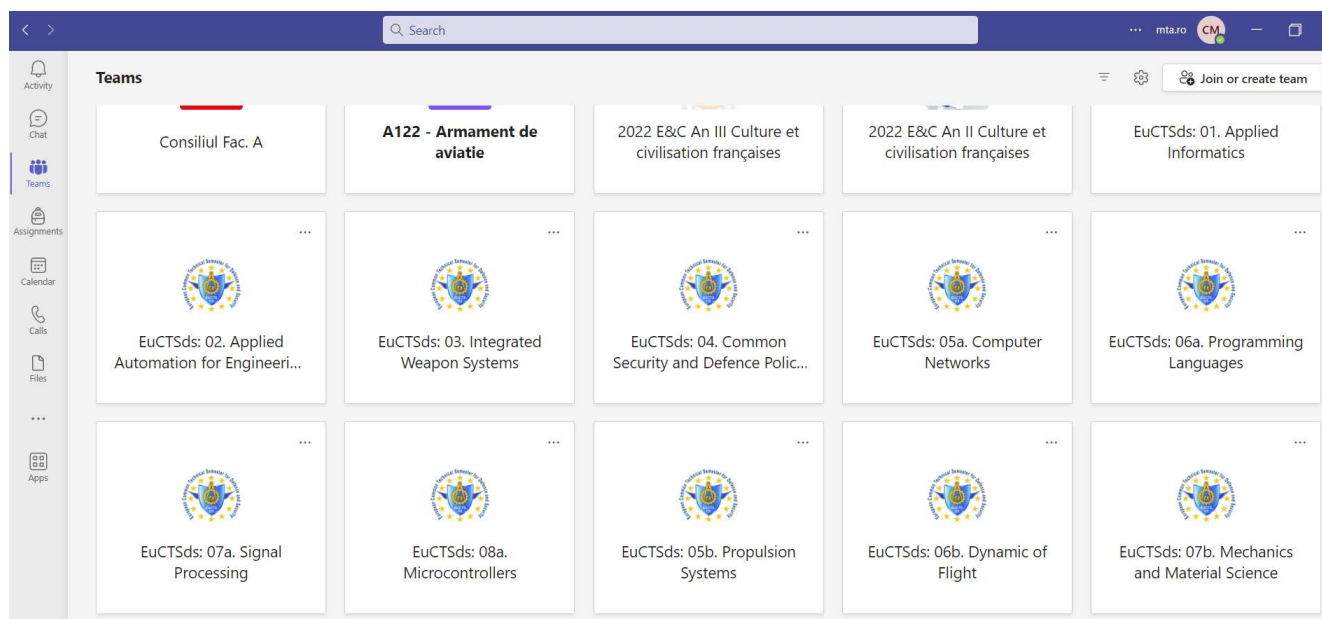


Fig. 2 Microsoft Teams platform

In the first step, a team was created for each subject of the EuCTSds curriculum. All the project members had access to this platform to work together on the elaboration of the subject description and at the elaboration of the didactic materials. The specific of the project was that each subject of the EuCTSds was created as a fully collaborative work among the representatives of all 5 project institutions members.

The second step was to create a new integrated team with many channels, one channel for each subject (fig. 3). The students and teachers had access to this team, having at the same time the possibility to share the didactic materials among teachers/students, but also to communicate in online environments.

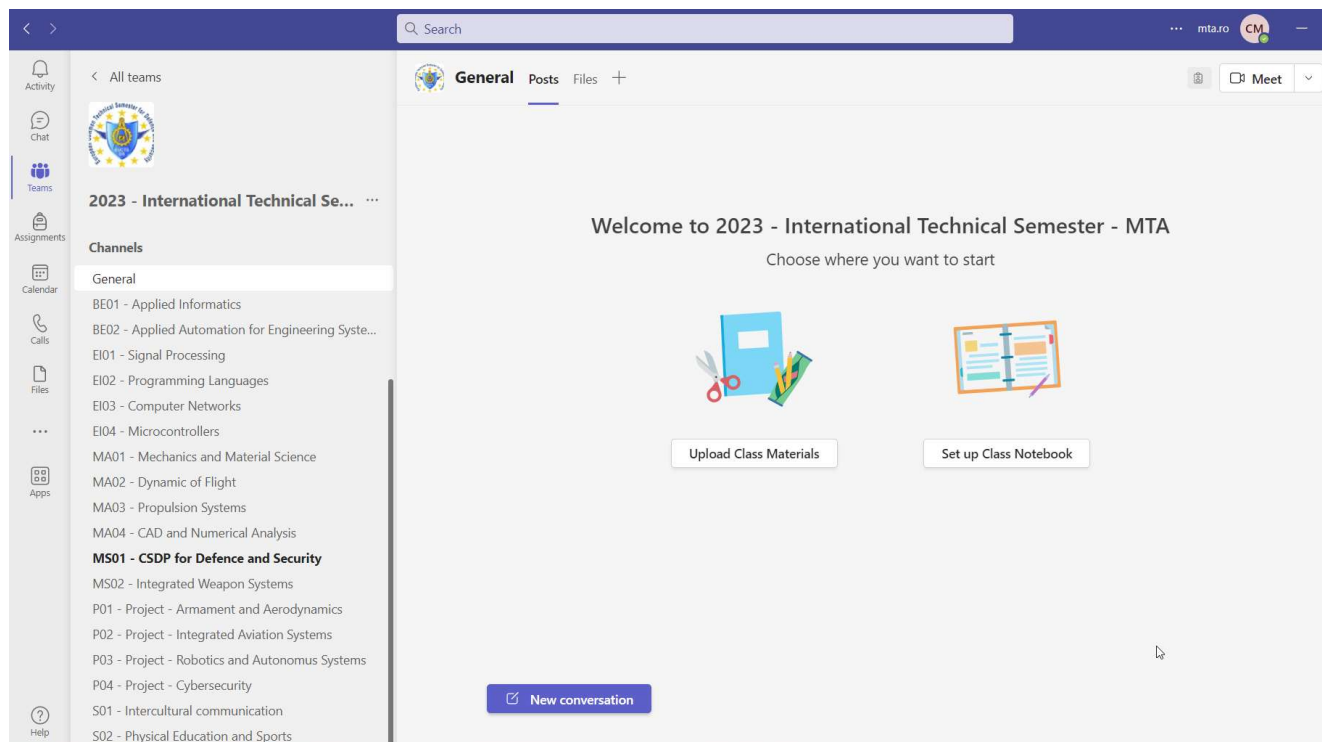


Fig. 3 EuCTSds subjects in different channels

4. ILIAS - The Open Source Learning Management System

Ilias is an open-source Learning Management System. The Software is available under the GNU General Public License and can be deployed on any server that has installed a Web server, PHP and MySql database. Being an open-source solution, ILIAS can be used without purchasing a license and if needed, have the code inspected and customized.

Being open-source also allowed ILIAS to develop a strong community and made finding information and tutorials about using the platform widely available.

It is a powerful and flexible platform for web-based learning, supporting many educational models and using scenarios. It is widely used by different entities like Higher education(Universities), Business, Schools and Public Service Institutions. Some examples are given on the ILIAS official website: University of Cologne, the Albert-Ludwig University in Freiburg, The Generali Insurance company, Duisburg-based KROHNE Group, Elly-Heuss-Knapp School in Neumünster (Germany), and many others.

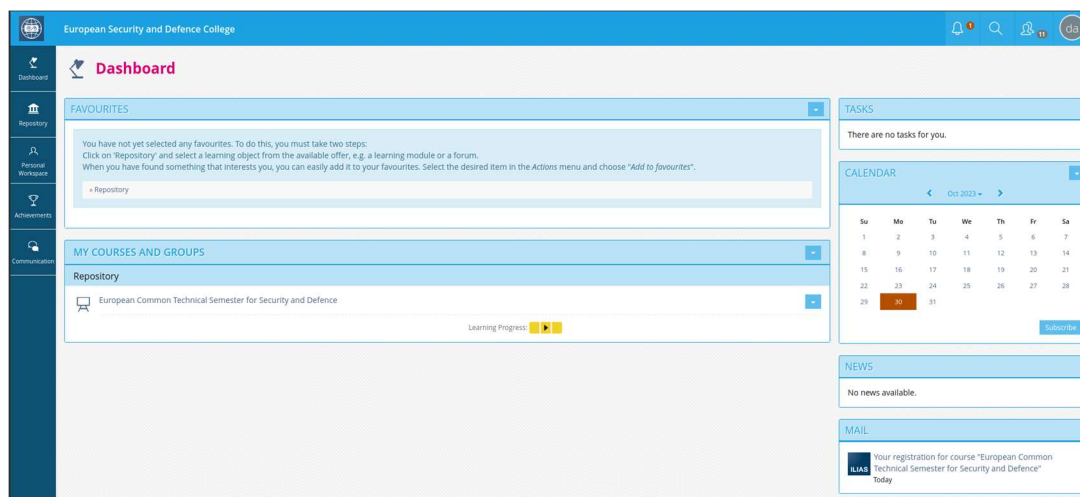


Fig. 4 - Platform dashboard where a users can see and access the courses

Ilias allows organizing information as “courses” which groups resources. For this project we created the “European Common Technical Semester for Security and Defence” and organised it in different chapters, each of them containing the needed study resources:

- 00. EuCTSds Curriculum
- 01. Basic Engineering
- 02. Military Science
- 03A. Electronic Engineering and Computer Science
- 03B. Mechanical and Aerospace Engineering
- 04. Interdisciplinary Scientific Project

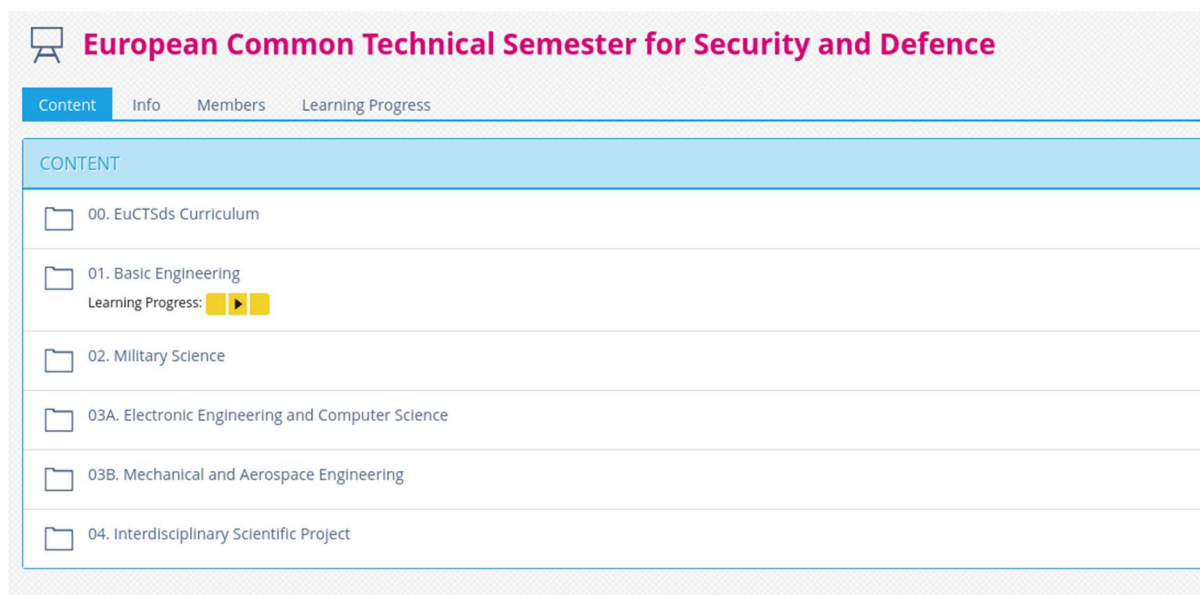


Fig. 5 - List of chapters inside the course

The course members can then download the needed resources for studying.

The platform allows creating courses with public access but also can limit access to resources based on a username and a password. After creating a user on the platform, the course administrator can add the user to the course in order for the user to be able to access it.

Also the users can auto-enroll using a “course password”. This is previously set by a course teacher and can ease the enrollment process.

ILIAS also has an option to see the learning progress of the enrolled users giving insights about users activity.






Roles	Learning Progress	Last Access
	 Not Attempted	Yesterday, 11:58
	 Not Attempted	26. May 2023, 14:43
	 Not Attempted	Today, 10:54
Course Tutor	 Not Attempted	Today, 11:07
Course Member	 In Progress	Today, 10:02

Fig. 6 - Member progress and last access information

The platform allows different roles to ease the permission allocation:

- Course Tutor - is the equivalent of a teacher. This type of users are allowed to add and organize course resources, enroll members and to create and grade assignments. The Tutor also can see
- Course Member - is the equivalent of a student. This type of user can access and download course resources, participate in conversations in forums and upload assignments to be graded.

Inside a course, the platform allows adding different types of resources, such as:

- Folders - to better structure the information
- Weblink - to add links to external resources.
- Content page - Adding a page inside ILIAS with custom content
- Mediacast - Add audio or video resource to be viewed inside the platform
- Forum and Chat room - A place where course members and teachers can communicate
- Exercise - a resource where users answer questions or write an essay and upload on the platform for a teacher to review
- Survey - used to ask course members opinion on different subjects or to obtain valuable feedback.

On our course we organized information in folders, by chapters and added resources as presentations(.pptx) and documents(.doc, .pdf).






CONTENT	
	1 - FLUID CINEMATICS pptx 1.3 MB Today, 05:24
	2 - AIRFOILS pptx 1.0 MB Today, 05:24
	3 - BERNOULLI EQUATION APPLIED pptx 681.8 KB Today, 05:24
	4 - BOUNDARY LAYER pptx 1.6 MB Today, 05:24
	5 - COMPRESSIBILITY pptx 5.3 MB Today, 05:24

Fig. 7 - List of resources inside a chapter

Besides the course resources, the platform allows every user to have a “Personal Workspace” that they can use. This workspace allows you to add “Favourites” - a list of “learning objects” like a learning module or a forum to have easy access to. The user can also add “Notes” and see a calendar and a list of tasks he has assigned.

The platform also allows sending notifications and emails to inform users about changes on the platform.

As presented, ILIAS is a complete learning platform with various features to support many learning scenarios, including ours. It is flexible and matches the requirements needed for our project.

The teachers involved in the didactic activities within the EuCTSds could be easily and safely invited to have access to the ILIAS platform of the EuCTSds (fig. 8). In this way, teachers from different institutions from different countries could collaborate in order to improve the didactic materials and to decide to the improvement of the subject content.

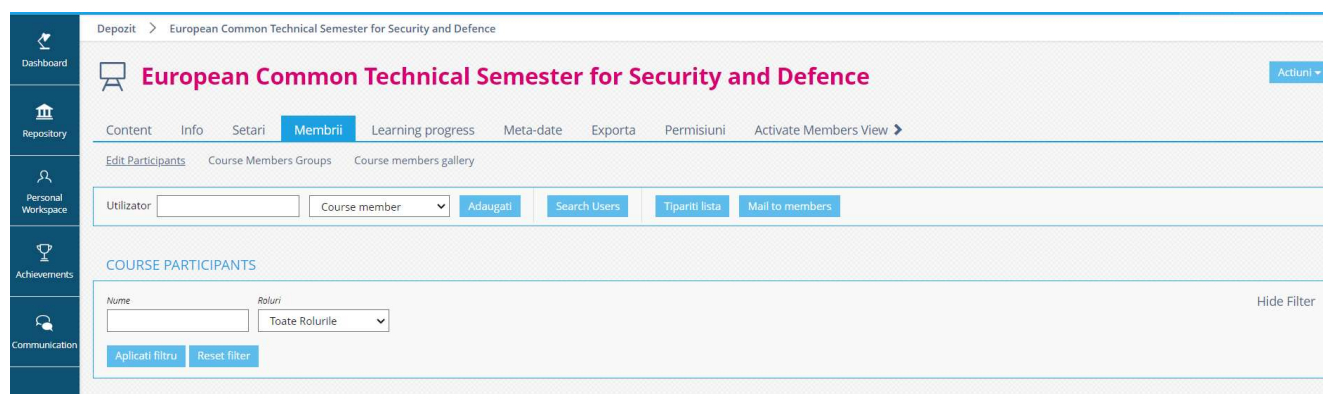
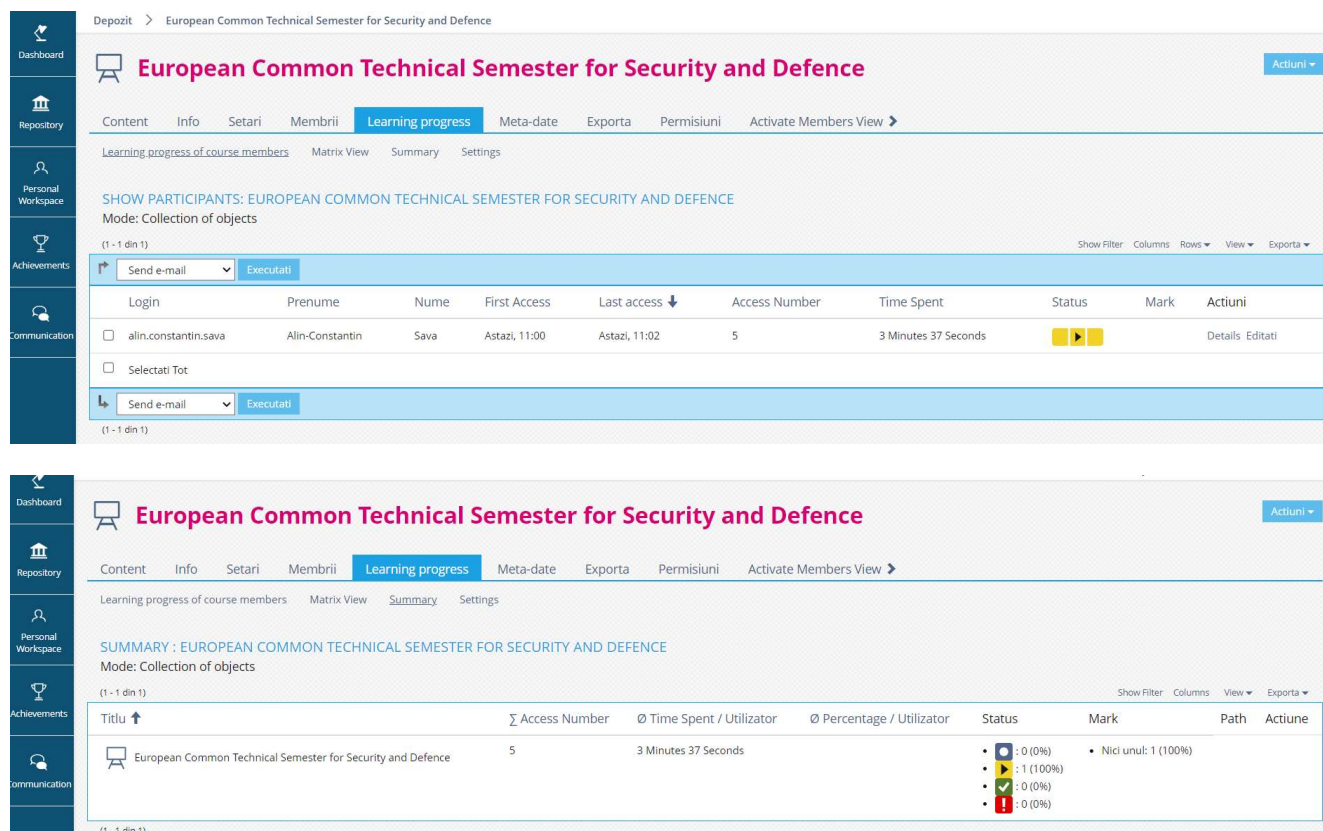


Fig. 8 – Inviting teachers to access the E-learning platform

The students also could be invited to have access to the e-learning platform. In this case, the platform could be used for specific activities within some subjects, such as the Interdisciplinary Scientific Project, or to attend a part of the project in online environments. This opportunity will be very useful, considering the possibility of including in the content of one subject a part in a face-to-face format and one part in online format, as individual training, under the supervision of the teachers (fig. 9).



European Common Technical Semester for Security and Defence

Content Info Setari Membrii **Learning progress** Meta-date Exporta Permisuni Activate Members View

Learning progress of course members Matrix View Summary Settings

SHOW PARTICIPANTS: EUROPEAN COMMON TECHNICAL SEMESTER FOR SECURITY AND DEFENCE
Mode: Collection of objects

(1 - 1 din 1)

Send e-mail	Executati	Login	Prenom	Nume	First Access	Last access	Access Number	Time Spent	Status	Mark	Actiuni
<input type="checkbox"/>		alin.constantin.sava	Alin-Constantin	Sava	Astazi, 11:00	Astazi, 11:02	5	3 Minutes 37 Seconds	▶		Details Editati
<input type="checkbox"/>		Selectati Tot									

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European Common Technical Semester for Security and Defence

Content Info Setari Membrii **Learning progress** Meta-date Exporta Permisuni Activate Members View

Learning progress of course members Matrix View Summary Settings

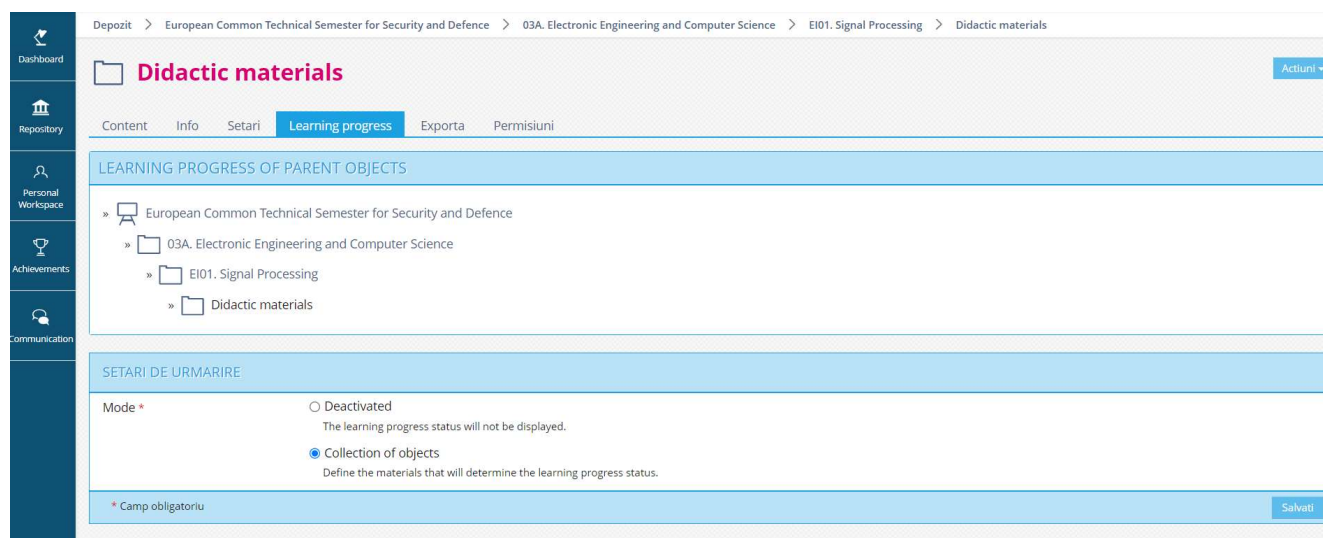
SUMMARY : EUROPEAN COMMON TECHNICAL SEMESTER FOR SECURITY AND DEFENCE
Mode: Collection of objects

(1 - 1 din 1)

Titlu	Σ Access Number	Ø Time Spent / Utilizator	Ø Percentage / Utilizator	Status	Mark	Path	Actiune
European Common Technical Semester for Security and Defence	5	3 Minutes 37 Seconds		<ul style="list-style-type: none"> 0 (0%) 1 (100%) 0 (0%) 0 (0%) 	Nici unul: 1 (100%)		

(1 - 1 din 1)

Fig. 9 – Supervision of the e-learning



Depozit > European Common Technical Semester for Security and Defence > 03A. Electronic Engineering and Computer Science > EI01. Signal Processing > Didactic materials

Didactic materials

Content Info Setari **Learning progress** Exporta Permisuni

LEARNING PROGRESS OF PARENT OBJECTS

- » European Common Technical Semester for Security and Defence
 - » 03A. Electronic Engineering and Computer Science
 - » EI01. Signal Processing
 - » Didactic materials

SETARI DE URMARIRE

Mode *

☐ Deactivated
The learning progress status will not be displayed.

☒ Collection of objects
Define the materials that will determine the learning progress status.

* Camp obligatoriu

Salvati

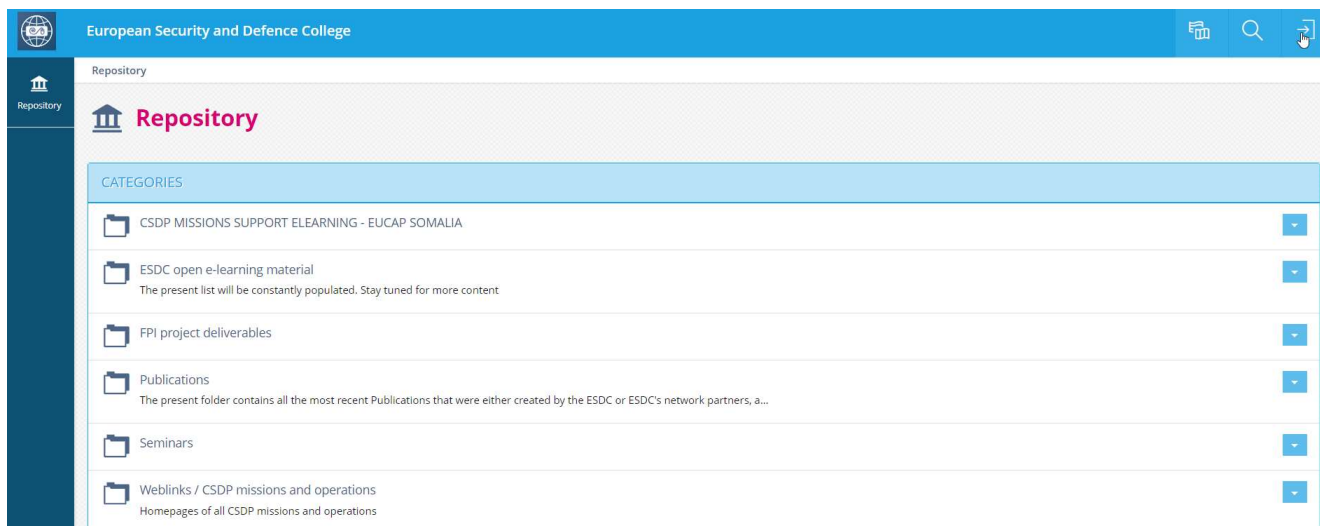
Fig. 10 – Establishing the mandatory didactic materials to be accessed by students

The teachers can define which didactic material will be very important to be read before starting the subject or for the next meeting (fig. 10).

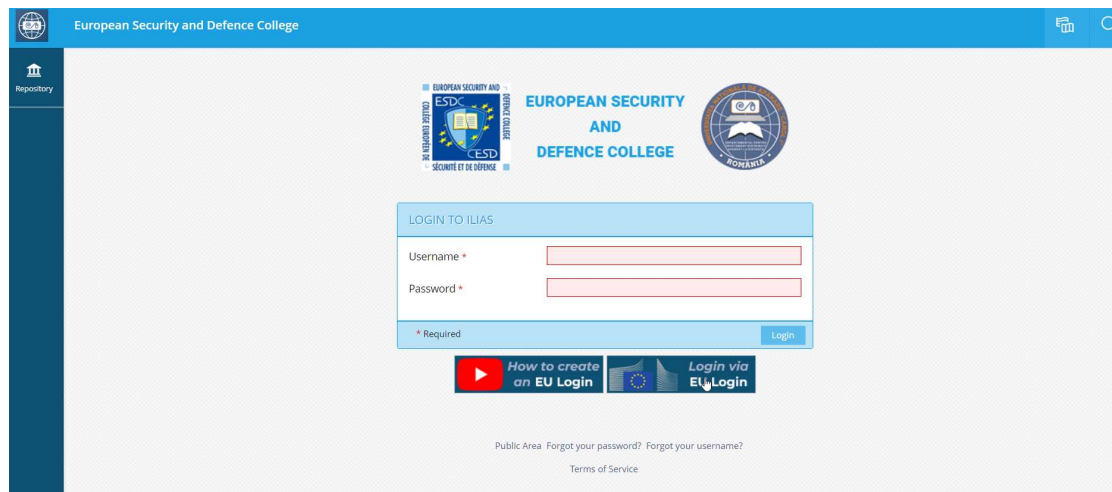
5. E-LEARNING ACCESS

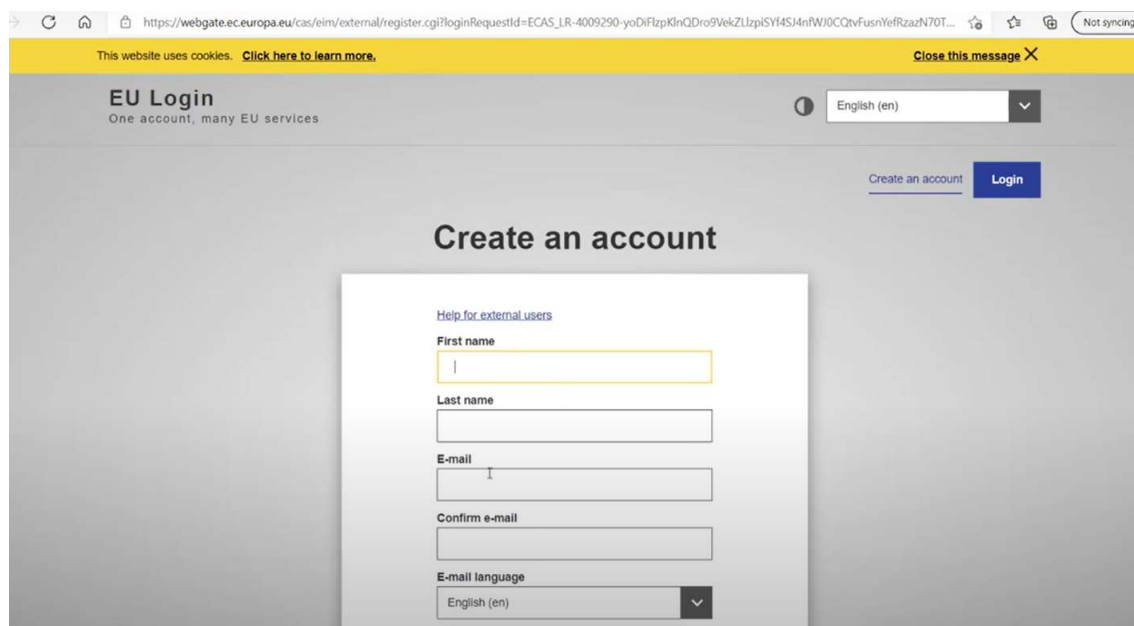
1. First step: Access ILIAS Learning Management System

<https://esdc.adlunap.ro/login.php>



2. Create an account using Login via Eu Login (former ECAS Account) or use your existing Eu Login (former ECAS account)





EU Login
One account, many EU services

English (en)

Create an account Login

Create an account

[Help for external users](#)

First name
|

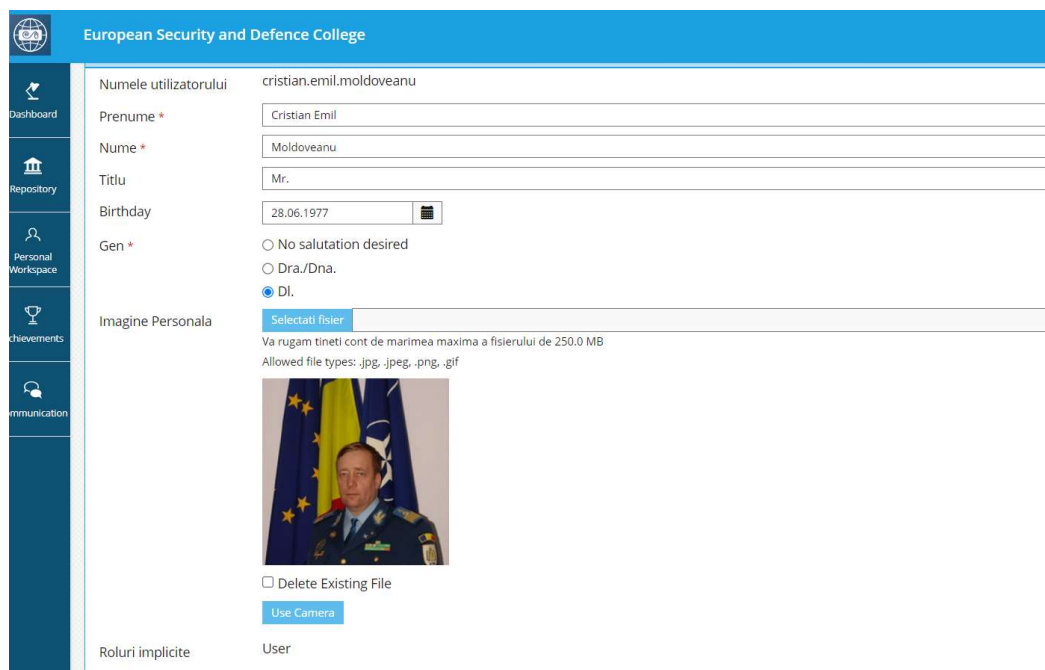
Last name

E-mail

Confirm e-mail

E-mail language
English (en)

- Communicate your username (email used for registration) to the E-learning administrator by email (Cristian.moldoveanu@mta.ro)



European Security and Defence College

Dashboard Repository Personal Workspace Achievements Communication

Numele utilizatorului cristian.emil.moldoveanu

Prenume * Cristian Emil

Nume * Moldoveanu

Titlu Mr.

Birthday 28.06.1977

Gen * ☐ No salutation desired ☐ Dra./Dna. ☒ Dl.

Imagine Personala Selectati fisier

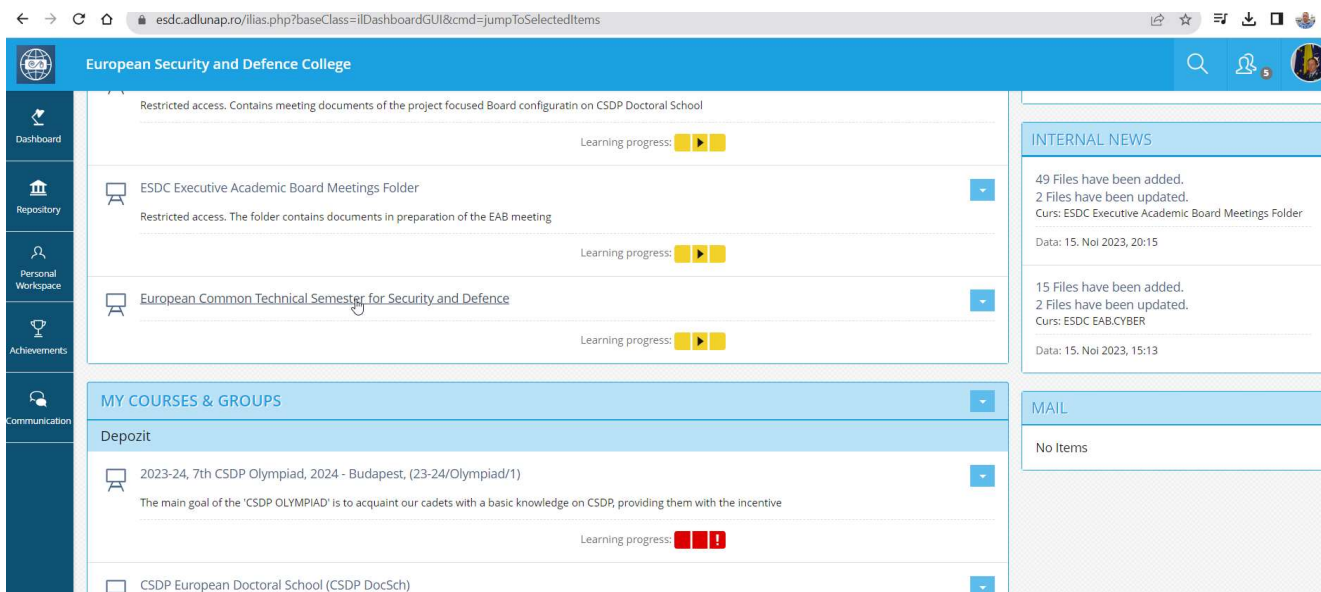
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Allowed file types: .jpg, .jpeg, .png, .gif

☐ Delete Existing File

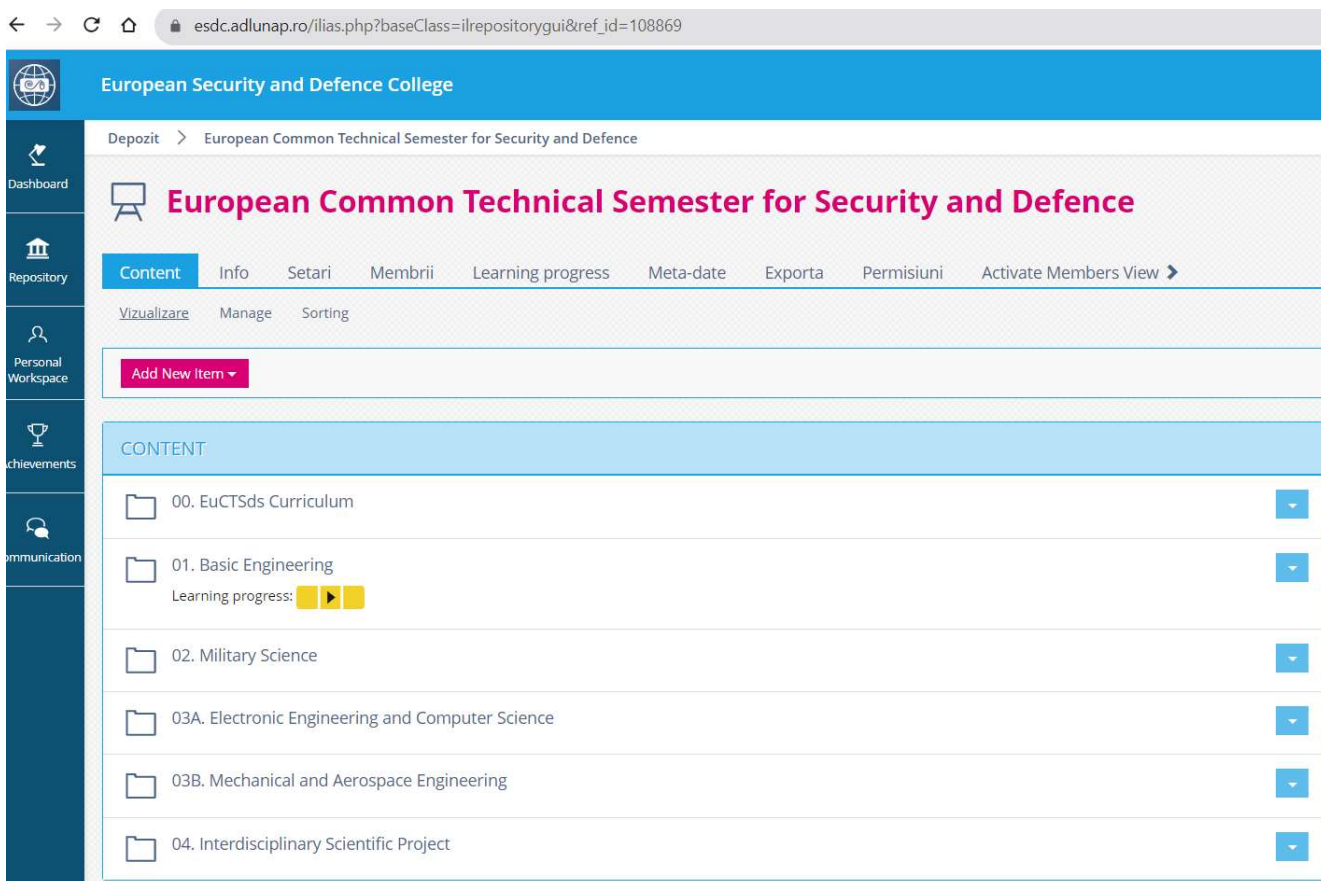
Use Camera

Roluri implicite User

4. Access the E-learning European Common Technical Semester for Security and Defence



The screenshot shows the dashboard of the European Security and Defence College. The left sidebar contains navigation links: Dashboard, Repository, Personal Workspace, Achievements, and Communication. The main content area displays a list of items with learning progress indicators. The 'European Common Technical Semester for Security and Defence' item is highlighted. The right sidebar shows 'INTERNAL NEWS' and 'MAIL' sections.



The screenshot shows the repository page for the European Common Technical Semester for Security and Defence. The left sidebar contains navigation links: Dashboard, Repository, Personal Workspace, Achievements, and Communication. The main content area displays a list of items with learning progress indicators. The 'European Common Technical Semester for Security and Defence' item is highlighted. The right sidebar shows 'INTERNAL NEWS' and 'MAIL' sections.

External links:

- ILIAS official website: <https://www.ilias.de/en/>
- Information about using ILIAS:
https://docu.ilias.de/ilias.php?baseClass=ilrepositorygui&ref_id=580&lang=en