

**V R i n V E T**

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Capacity Building Training for VET Teachers

 ERASMUS-EDU-2023-CB-VET

#101128646

VR TRAINING PROGRAM

Work Package WP3

Task 3.3

February – March 2025

# **Training of VET Teachers on VRinVET**

**Dear VRinVET Coordinators,**

We will start face to face training sessions in the VRinVET project. For these sessions, as ATILIM University team, we will travel to your country and complete the sessions in three days. The purpose of this session will train selected VET teachers to upskill their VR Hardware and Software tools usage and SimLab Composer Mechanic[[1]](#footnote-1) edition to design and development VR environments for educational purposes. There will be three sessions of the training program.

In this session, VET teachers will be trained with online videos and hand-on practices. The courses will be self-paced. At the end of each module, there will be assessments.

Each module will be accessible from the link: <https://vet.virtualrealityvet.com/login/index.php>

The following preparations must be completed by the beneficiary partner coordinators before the start of the training.

1. **Attenders will be determined, invited and the attendance sheets** must be prepared.
* 20 VET teachers who must be proficient in English (speaking and comprehension).
* 10 VET teachers on the backup list.
* Collected Information: Full names, institutional affiliations, and email addresses.
* All VET teachers must start the theoretical knowledge modules (the first 7 modules listed below) before the start of the face-to-face training and complete prior to starting the capstone projects.
* Attending all sessions is mandatory.
* The attendance of certificate will be given to the attenders by the hosting partner.
* After the training session is completed, the attending VET teachers will complete their capstone projects and submit them via the Moodle system.These projects will be peer-evaluated using the workshop activity on Moodle.
* 200 students for implementation in their schools (50 substitutes).
1. **Participant Requirements**
* All necessary hardware and software must be purchased before the face-to-face training begins.
* Training facilities must be fully prepared for the three-day program.
* The training will take place in computer laboratories with a stable internet connection.
* A projector must be available.
* Lunch and refreshments should be provided during the training.
* One designated person will take pictures during the training.
* Informing the country national agency and news agency about the training (as for dissemination activity)

The description of the modules which will be covered during the training.

**Session I: Theoretical foundations of VR in VET:** This session will introduce VET teachers to the theoretical underpinnings of VR technology and its applications in vocational education. The session covers the foundational concepts of VR and AR, instructional design, and practical applications of VR in vocational training. Teachers will explore VR’s evolution, analyze the hardware and software used in VR setups, and delve into instructional strategies to engage learners in immersive environments. The session includes self-paced videos, hands-on practices, and assessments at the end of each module. This session cover Modules 1 to 7.

* Online asynchronous
* 250 hours
* Moodle site

**Session II: Utilization of VR Hardware and Software:** In this session, VET teachers will gain hands-on experience with VR hardware and software in a classroom or lab setting. Teachers will learn to configure VR hardware like Meta Quest headsets and Insta 360 cameras and explore software environments such as SimLab Composer. Practical demonstrations will guide them through system setup, navigation, and troubleshooting techniques. The session emphasizes practical skills for managing VR equipment and ensuring a smooth user experience, making teachers confident in the setup and use of VR technology in their classrooms. This module covers Modul 8 and Modul 9.

* Face to Face
* 30 hours
* Classroom or computer laboratory

**Session III: R Capstone Project for VET:** This session will task VET teachers with designing and developing a custom VR project tailored to their vocational training needs. Teachers will select topics and create VR training modules using tools like SimLab, incorporating multimedia and interactive features. Peer evaluations will provide feedback on project designs, with the final outcomes aimed at delivering VR-based lessons to 200 students. This session is a practical culmination of the training program, offering teachers the opportunity to apply their VR skills to real-world educational settings. This session covers Modul 10.

* Hybrid *(face to face and online)*
* 120 hours
* Project development and peer evaluation.

## Tentative Training Schedule

Trainer: Prof. Dr. Sacit TOKER, ATILIM University, Ankara, Türkiye

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## ****📅 3-Day Training Schedule****

📆 **Dates:** TBD
🕘 **Training Hours:** 9:00 AM – 6:00 PM (8 hours/day)
🍽 **Lunch Break:** 12:30 PM – 1:30 PM
☕ **Breaks:** 10:30 AM – 10:45 AM & 3:00 PM – 3:15 PM

### **📅 Day 1: Module 8 – Configuring VR Hardware and Software (Half-Day)**

#### **Morning (9:00 – 12:30)**

✅ **9:00 – 9:15** | Opening Ceremony
✅ **9:15 – 10:30** | Training Overview, Introduction to VR Hardware (Meta Quest 3, Insta 360, VR Boxes)
✅ **10:30 – 10:45** | ☕ Coffee Break
✅ **10:45 – 12:30** | Configuring VR Hardware & Troubleshooting

**Lunch Break (12:30 – 1:30)**

🔄 **Module Transition: Module 9 Begins in the Afternoon**

## ****📅 Day 1 (Afternoon) – Day 3: Module 9 – Navigating SimLab Composer****

### **Day 1 (Afternoon)**

✅ **1:30 – 3:00** | **1. Get Started:** Introduction to SimLab Composer & Interface Basics
✅ **3:00 – 3:15** | ☕ Coffee Break
✅ **3:15 – 6:00** | **2. Scene Management:** Importing, Organizing, and Optimizing 3D Assets

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### **📅 Day 2: Module 9 – Advanced Navigation & Interaction**

#### **Morning (9:00 – 12:30)**

✅ **9:00 – 10:30** | **3. 360-Degree:** Creating & Navigating 360° VR Environments
✅ **10:30 – 10:45** | ☕ Coffee Break
✅ **10:45 – 12:30** | **4. VR Creation:** Building Interactive VR Scenes

**Lunch Break (12:30 – 1:30)**

#### **Afternoon (1:30 – 5:00)**

✅ **1:30 – 3:00** | **5. VR Evaluation:** Testing & Optimizing VR Experiences
✅ **3:00 – 3:15** | ☕ Coffee Break
✅ **3:15 – 6:00** | **6. Automation:** Automating VR Workflows with SimLab Tools

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### **📅 Day 3: Module 9 – Problem-Solving & Advanced Applications**

#### **Morning (9:00 – 12:30)**

✅ **9:00 – 10:30** | **7. Baking:** Enhancing Realism with Light & Material Baking
✅ **10:30 – 10:45** | ☕ Coffee Break
✅ **10:45 – 12:30** | **8. 3D PDF:** Exporting Interactive 3D PDFs for Collaboration

**Lunch Break (12:30 – 1:30)**

#### **Afternoon (1:30 – 5:00)**

✅ **1:30 – 3:00** | **9. Rendering:** Creating High-Quality Rendered Scenes
✅ **3:00 – 3:15** | ☕ Coffee Break
✅ **3:15 – 4:30** | **10. Simulation:** Running Physics-Based Interactions & Object Behaviors
✅ **4:30 – 6:00** | Group Presentations, Feedback, Q&A & Closing Remarks

## Dates for the training

|  |  |  |
| --- | --- | --- |
| **Country** | **Institution** | **Date** |
| National flag of Albania  | Albania | Electric Technical School "Gjergj Canco" (GC)Luarasi University (LU) | 18,19,20 March 2025 |
| Cezayir - Vikipedi | Algeria | The University of Oum El Bouaghi (UOEB) | 25,26,27 March 2025 |
| Azerbaycan'ın Bayrak, Arma ve Marşının Hikayesi - Stratejik Ortak | Azerbaijan | Azerbaijan State Pedagogical University (ASPU) | 1,2,3 April 2025  |

The following modules will be included in each session.

## Session 1: Theoretical Foundations of VR in VET

In this session, VET teachers will be trained with online videos and hand-on practices. The courses will be self-paced. At the end of each module, there will be assessments.

* ***Module 1 - Overview of Virtual Reality Technology:*** This module introduces the basic concepts, terminology, and historical development of Virtual Reality (VR) and Augmented Reality (AR). Participants will learn about the differences between VR, AR, and Mixed Reality (MR), the evolution of these technologies, and their applications across fields such as education, healthcare, and entertainment. Emphasis is placed on the future of VR in vocational education, with exercises that build spatial and situational awareness through concept mapping and case studies.

*A total of 15 hours is necessary to complete this module.*

* ***Module 2 - Gaining an Understanding of Virtual Reality Software and Hardware:*** In this module, learners will explore the components of VR systems, including headsets, controllers, and sensors, as well as the various software platforms used in VR development. Participants will evaluate the pros and cons of different VR setups, focusing on compatibility and budgeting considerations for vocational training. Hands-on exercises include cost-benefit analyses and software explorations aimed at selecting the best VR tools for educational use.

*A total of 25 hours is necessary to complete this module.*

* ***Module 3 – Effective Instructional Design for VR:*** This module focuses on designing VR-based training programs using instructional design models like 4CID. Participants will learn how to create scenario-based learning experiences that promote hands-on engagement and implement feedback and assessment strategies to measure learning outcomes. Activities include lesson planning, scenario development, and designing formative and summative assessments tailored to VR environments.

*A total of 45 hours is necessary to complete this module.*

* ***Module 4 – Engaging Learners in VR Environments:*** Learners will explore various techniques to engage students within VR environments, such as gamification, interactive scenarios, and collaborative projects. This module emphasizes creating supportive and interactive virtual learning spaces that encourage exploration and teamwork. Participants will develop activities like virtual field trips and interdisciplinary projects while fostering active participation and collaboration among learners.

*A total of 45 hours is necessary to complete this module.*

* ***Module 5 – Practical Uses of VR in Vocational Education:*** In this module, participants will analyze real-world applications of VR in vocational education, such as virtual job simulations and equipment operation training. They will evaluate the effectiveness of these applications and identify opportunities for integrating VR into vocational training programs. The course includes case study analysis and the development of pilot programs that incorporate VR technologies into existing curricula.

*A total 45 hours is necessary to complete this module.*

* ***Module 6 – Integrating VR into Vocational Education Curriculum:*** This module focuses on integrating VR learning experiences into existing vocational education curricula. Participants will learn how to align VR activities with learning objectives, design VR experiences that complement traditional instruction, and assess student learning outcomes through VR-based tools. Practical exercises involve curriculum mapping, scenario-based module design, and the development of VR-based assessments.

*A total 45 hours is necessary to complete this module.*

* ***Module 7 – Addressing Accessibility and Inclusivity in VR Training:*** This module emphasizes the importance of accessibility and inclusivity in VR training, particularly for learners with disabilities. Participants will explore various accessibility features across VR platforms and practice making accommodations such as alternative control methods and visual adjustments. Activities include user testing, role-playing for accessibility challenges, and collaborative problem-solving to enhance inclusivity in VR environments.,

*A total of 30 hours is necessary to complete this module.*

## Session 2: Utilization of VR Hardware and Software

In this session, the VET teachers will be trained in classrooms face to face. The modules will be taught via demonstration and doing classes. Each training will be three full days.

* ***Module 8 – Configuring VR Hardware and Software:*** Learners will develop hands-on skills for setting up VR hardware (Meta Quest 3, Insta 360 Camera, VR Boxes) and software systems (SimLab Composer), including headsets, controllers, and VR applications. This module covers the configuration and troubleshooting of various VR components and the maintenance of VR equipment. Practical exercises involve creating setup guides, configuring VR systems, and practicing common troubleshooting scenarios to ensure the smooth operation of VR technology.

*A total 15 hours is necessary to complete this module.*

* ***Module 9 – Navigating SimLab Composer Environment:*** This module introduces learners to the SimLab Composer environment, where they will practice navigating virtual spaces using VR controls and interfaces. Participants will learn effective movement and interaction techniques, focusing on spatial awareness and object manipulation. Exercises include navigating obstacle courses, solving puzzles in VR environments, and interacting with virtual objects to enhance their technical navigation skills.

*A total of 5 hours is necessary to complete this module.*

## Session 3: VR Capstone Project for VET

This session will be both face to face and online. The VET teachers will design and develop a VR project based on the topic they selected. The projects will be peer evaluated by the other teachers. The outcome of this session will be used to teach 200 students for measuring the impact of VR training on students.

* ***Module 10 – Designing Custom VR Training Modules for VET:*** In this final module, participants will learn how to design custom VR training modules tailored to specific vocational skills. They will use tools like SimLab to create virtual workshops, simulations, and interactive tutorials. The course emphasizes the integration of multimedia elements and interactive features to enhance learning. Participants will develop prototypes, conduct usability testing, and create assessment tools to evaluate learner performance in VR modules.

*A total 120 hours is necessary to complete this module.*

1. <https://www.simlab-soft.com/3d-products/Tutorials/simlab-composer-mech-training.aspx> [↑](#footnote-ref-1)