



# **Development and Implementation of MDTV Curricula (DIMTV)**

## **WP2.3 – Activity 2.3.1 Report**

### **Training academic staff on modules**

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## 1. Introduction

In the scope of the Work package, 2.3 staff training sessions were organized in the scope of visits to EU partners or training on-premises at the partner Universities and Higher Education Institutions. Their goal was to give the teaching staff of the partner institutions initial insight into technologies and trends, useful software, and other tools to give them the necessary initial knowledge for the module's implementation and teaching.

During the project duration eight training sessions took place in the scope of project meetings and events:

*Table 1 List of staff training sessions*

| Institution                      | Location                | Date           |
|----------------------------------|-------------------------|----------------|
| VSB Technical University Ostrava | Ostrava, Czech republic | May 2018       |
| Tartu University                 | Tartu, Estonia          | September 2018 |
| University of Ljubljana          | Ljubljana, Slovenia     | January 2019   |
| UAMD                             | Durres, Albania         | April 2019     |
| EPOKA                            | Tirana, Albania         | April 2019     |
| UAMD                             | Durres, Albania         | May 2019       |
| UP and UBT                       | Pristina, Kosovo        | September 2019 |
| UAMD                             | Durres, Albania         | June 2021      |
| UAMD                             | Durres, Albania         | September 2021 |

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## 2. Academic staff training sessions

### 2.1 1<sup>st</sup> Academic staff training at VSB Technical University Ostrava, May 2018

*The first* Academic staff training session took place in the scope of the EU study visit at Technical University Ostrava. The training was first conducted by Dr. Premysl Mer who has presented the technologies and methods used for multimedia focusing on content creation and its processing. He explained the tools and techniques they use at the VSB technical University Ostrava to develop their practical works during classes.

*The second* training session was given by Dr. Pavol Partila, who presented methods and applications in the field of speech processing as part of the multimedia content processing domain.

The speakers have also shown the annotation of courses aimed at multimedia at their department.

The training was attended by the teaching staff from UAMD, EPOKA, UP, and UBT partner institutions.

### 2.2 2<sup>nd</sup> Academic staff training at University of Tartu, September 2018

*The second* EU study visit took place at the premises of Tartu University, Institute of Technology in Tartu, Estonia. The training started with a presentation by Egils Avots from Tartu University who presented the technologies and methods used for computer vision as part of the multimedia content processing approach. He explained the approaches to building databases of images, the creation of 3D models, and challenges and opportunities in this domain.

*The second* training session was given by prof. Dr. Gholamreza Anbarjafari from Tartu University, who explained the basics of computer vision perception, the challenges of collecting data from a single camera for 3D object creation, the importance of context in image processing, and other related topics for image processing.

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*The third* training session was led by members of Tartu University, who gave a seminar on virtual and augmented reality, presenting the necessary equipment and technology and some use cases in education. Principles of virtual and augmented reality content creation were presented with some demonstrations on real-life cases in the domain of mechatronics.

The training was attended by the teaching staff from UAMD, EPOKA, UP, and UBT partner institutions.



*Figure 1 Academic staff training session on VR and AR technology*

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**Figure 2** Demonstration of VR equipment and applications



**Figure 3** Demonstration of VR equipment and applications

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**Figure 4** Image processing training session

### **2.3 3<sup>rd</sup> Academic staff training at University of Ljubljana, January 2019**

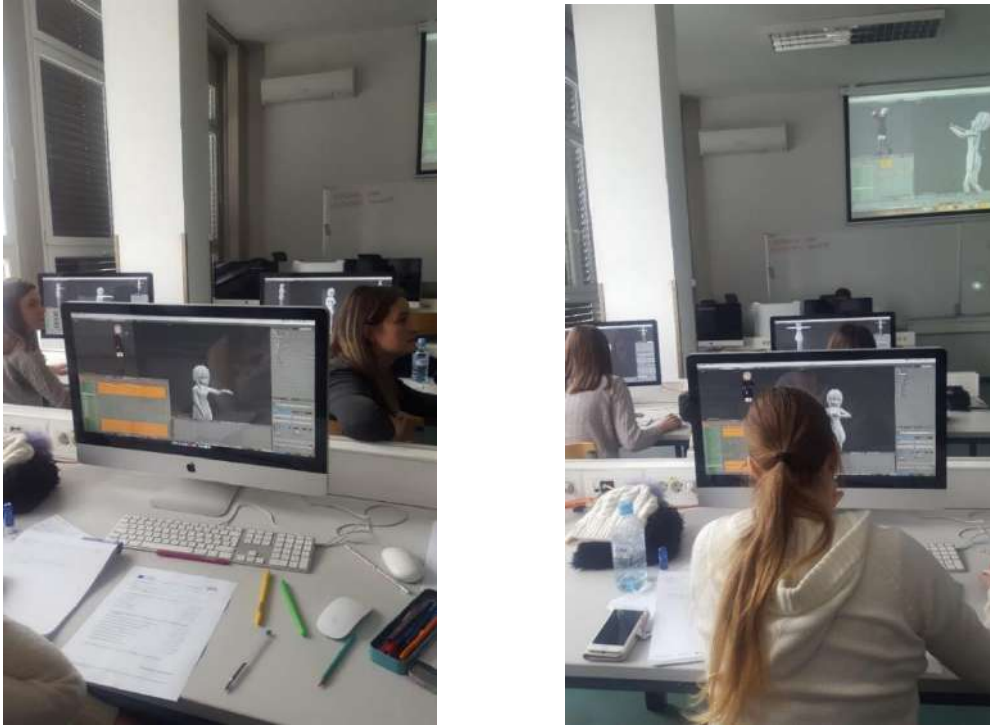
The third Academic staff training session took place in the scope of the EU study visit at the University of Ljubljana. The training was first conducted by Klemen Pečnik and Žana Juvan from the University of Ljubljana, who have given an introduction to the Blender animation and modeling tool with an emphasis on the environment, interface, tools, and basic modeling approaches. This was followed by training on creating and modeling shapes, meshing UV mapping, and textures.

*The second* part of the session was led by assoc. prof. Dr. Matija Marolt from the University of Ljubljana presented the basics of rigging and keyframing.

*The third* training part has been again conducted by Klemen Pečnik and Žana Juvan, who led the participants through the hands-on workshop on keyframing and animation, which was concluded by animations of additional created characters.

The training was attended by the teaching staff from UAMD, EPOKA, UP, and UBT partner institutions.

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*Figure 5 Training on animation and modelling*

#### **2.4 4<sup>th</sup> Academic staff training at Aleksander Moisiu University (UAMD), April 2019**

The fourth Academic staff training was organized at UAMD and also included student audiences in the domain of animation in Blender software for 3D modelling. During the training, Klemen Pečnik and Žana Juvan continued previous training sessions on character modelling and rigging. The audience followed step-by-step examples given by the lecturers, giving them a guided opportunity for growth in practical knowledge. The lecturers prepared individual projects to work on, intending to better understand the principles of animation applied to character motion and locomotion. They used segmented characters in separate exercises to learn the concepts of balance, weight, the center of gravity, posing, shape reversals, anticipation, motivated action, secondary action, reaction, silhouette, twinning, and staging. The audience learned how to make characters move with more weight, solidity, and believability in action scenarios.

Additionally, a session on video editing was given by the same lecturers. The training was attended by the students and teaching staff from UAMD. A short video presenting the training session is available at: <https://www.youtube.com/watch?v=j5AB54RpV04>

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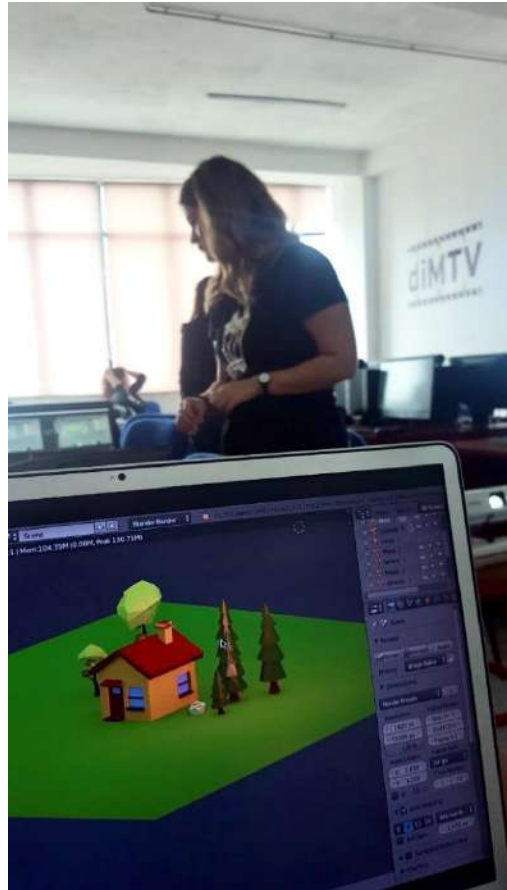


*Figure 6 Animation and modeling workshop in Durrës*



*Figure 7 Animation and modeling workshop in Durrës*

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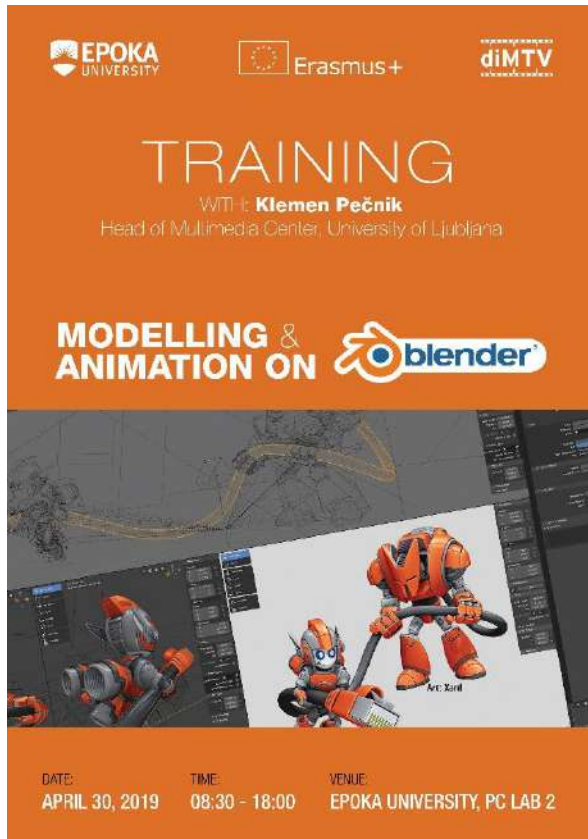
*Figure 8 Animation example from the workshop*

## 2.5 5<sup>th</sup> Academic staff training at EPOKA, April 2019

The 5<sup>th</sup> Academic staff training session took part at EPOKA university attended by the academic staff and students from Computer Engineering and Architecture departments. The main topic of training was 3D Modelling and Animation using Blender software. The training was given by Klemen Pečnik and Žana Juvan from the University of Ljubljana. The training topics consisted of 3D modelling, rigging, key-framing, and animation. The training was organized through interactive PowerPoint presentations, many practical projects, discussions, and Q&A sessions.

The training was attended by the students and teaching staff from EPOKA University.

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**Figure 10** Modelling and animation session flyer



**Figure 9** Training session on modeling and animation

## 2.6 6<sup>th</sup> Academic staff training at UAMD, May 2019

The focus of the 6<sup>th</sup> training was animation and post-production aspects. In the scope of previous training in April 2019 for academic staff (and students), which helped them learn the main topics on 3D animation and post-production, the attendants were given homework and practical projects in Blender and After Effects software solutions. At this training session, the attendants have presented their animation and post-production projects, which were commented on, explained, and optimized. Dilemmas and questions were answered by the training session supervisors Klemen Pečnik and the Žana Juvan University of Ljubljana. The session had a significant impact on their understanding of animation and postproduction aspects.

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*Figure 9 Broadcasting equipment - video mixer*

## **2.7 7<sup>th</sup> Academic staff training at University of Prishtina (UP) and UBT, September 2019**

*The seventh* Academic staff training session took place in Prishtina at UP and UBT partner institutions and lasted for three days. The main topics were animation with 3D modeling and video post-production. The sessions were led by Klemen Pečnik and Žana Juvan from University of Ljubljana.

The first day included animation and 3D modeling topics using Blender, where the main topics included finishing models, lights, and camera and rigging.

The second day was divided into two parts. The first part included the continuation of the first day's topics, while the second part took place at the UBT premises in Prishtina, where a video shooting practical workshop took place.

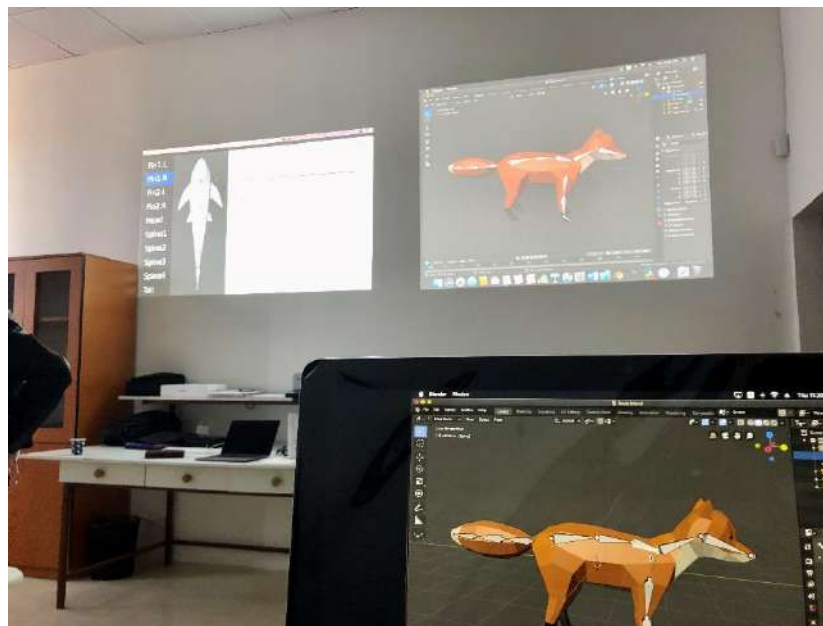
The main topic of the third-day training was video post-production, with topics like introduction to video editing, timeline and tools, color correction, sound editing, color grading, text, and exporting.

The training was attended by the teaching staff from UP and UBT partner institutions.

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**Figure 10** Animation and 3D modeling training at UP



**Figure 11** Animation and 3D modeling examples

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*Figure 12 Video production equipment at UBT*

## **2.8 8<sup>th</sup> Academic staff and student training at UAMD, June 2021**

*The eighth* Academic staff and student training session took place in Durres at the UAMD partner institution and lasted for three days. The main topics were animation with 3D modeling as a continuation of previous training and video production. The sessions were led by Klemen Pečnik and Žana Juvan from University of Ljubljana

As part of the training, workshops in the field of modeling and animation were held in the Blender program, where the participating students and academic staff learned how to make 3D models, suitable textures, animate their movements, and export them to the final videos. In the second part of the training, workshops were held in the field of AV production, where students, using equipment acquired within the DiMTV project, set up a studio to record interviews and learn the use of multimedia equipment on practical examples. Workshop participants tested themselves in different roles that are part of different phases of AV production.

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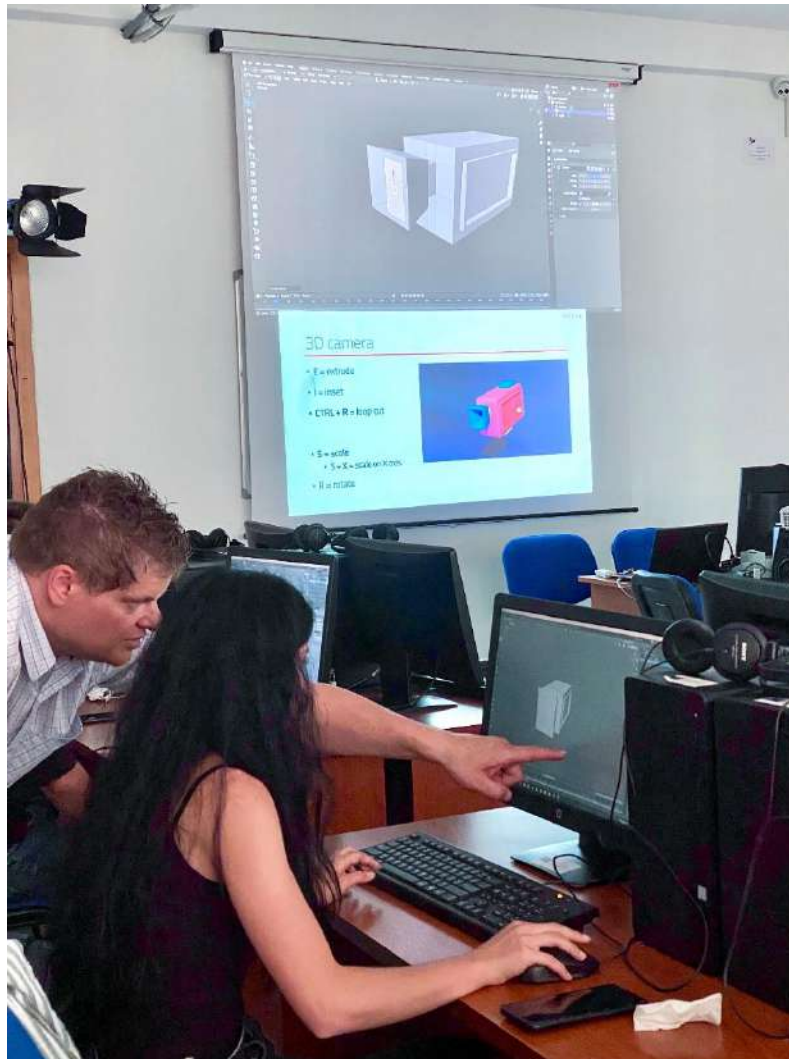


*Figure 13 An example of the 3D model created at the workshop*



*Figure 14 Klemen Pečnik from UL mentoring the attendants about 3D modeling*

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**Figure 15** Mentoring about 3D modeling at the workshop

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**Figure 16** Studio and equipment preparation at the workshop



**Figure 17** Video post-production lecture at the workshop

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## 2.9 9<sup>th</sup> Academic staff training at UAMD, September 2021

The last training of the academic staff was organized by the experts from the University of Ljubljana, Klemen Pečnik, and Žana Juvan. The first day of the training was conducted in the form of an open discussion, where each of the participating lecturers discussed the challenges during online teaching, and the use of the latest multimedia technologies as well as proposing or suggesting optimal solutions.

During the second day, the focus shifted to advanced engineering technologies in television, hybrid solutions, and architectures of the future, as well as audio equipment.

On the third day of the training, the staff was introduced to practical solutions using the equipment of the multimedia studio at UAMD. Building live broadcast systems and updating them was the main focus.



**Figure 18** First day of staff training from experts of University of Ljubljana



*Figure 19 Second day of staff training from experts of University of Ljubljana*