



Data	10/06/19
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Spett.le ISS "Scarpa" Via 1° Maggio 3 31045, Motta di livenza

"Virtual and Augmented Reality" training days report

Description (technologies used-showed off pointed with a *)	Time of the day(s)
<p>General introduction to the latest Virtual Technologies</p> <p>General presentation.</p> <p>Split of the audience in 8 groups, to each group has been given an Android Tablet.</p> <p>Main differences between "Virtual Reality" and "Augmented Reality" and show off of some explicative video samples.</p>	<p>1st day</p> <p>8:15 – 9:45</p>
<p>Short tutorial on Augmented reality contents creation</p> <p>Introduction to the various types of "Augmented Reality" and an easy tip for custom content creation, through the use of *tools freely available on the Web.</p> <p>Each group had the needed assistance in order to implement a custom content on the *App, and to make several test and try on his own, so to improve the understanding of the processes that generally happens in the background of the Augmented Reality Technologies.</p> <p>*HP Reveal (https://www.hpreveal.com/)</p> <p>*Android Tablet</p>	<p>9:45 – 12:00</p>
<p>Introduction to Virtual Reality Technologies</p> <p>In order to help the students in a better understanding of the subjects coming in the next hours, the main requirements and differences between the *various existing Virtual Reality Headset and Contents have been shortly explained.</p> <p>*Head Mounted Display "Cardboard like", VR Capable Smartphone</p> <p>*Oculus Rift HMD, IR Cameras, Touch Controllers, High End Laptop</p>	<p>12:00 – 13:00</p>

<p>Custom 360 VR video content creation</p> <p>After the introduction to the various types of Virtual Reality Software(s) (native 3d real time-rendered and post-produced 360 video), the groups have had the chance to better understand how to use a *360 VR camera.</p> <p>Once the tech demo with the 360 camera has been over, the subject of the class moved towards the necessary *workflow and Software(s) to be able to self-produce a 360 VR custom video at home and upload it on a youtube channel.</p> <p>*360 Camera Ricoh Theta + Desktop Software + Mobile App (https://theta360.com/en/)</p> <p>*Adobe After Effects 2018 (https://www.adobe.com/products/aftereffects.html?promoid=KFMVM&s_cid=70114000002CfGJAA0&s_iid=70114000002ChdJAAS)</p> <p>*Youtube 360 Metadata Injector (https://github.com/google/spatial-media/releases/latest)</p> <p>*Generic VR Mobile Headset (sample : https://www.trust.com/en/virtual-reality)</p>	<p>14:20 – 16:20</p>
<p>Introduction to Desktop-connected tracked VR HMD</p> <p>The students have been introduced to the various “High End” Virtual Reality technologies available today, minimum requirements and main difficulties while using them.</p> <p>*Oculus Rift HMD, IR Cameras, Touch Controllers, (https://www.oculus.com/rift-s/)</p> <p>* High End Laptop “Asus Rog” (https://www.asus.com/Laptops/Gaming-Series-Products/?ga=2.230687318.816429548.1560619294-2001784289.1560619294)</p>	<p>16:20 – 17:20</p>
<p>High End tracked Virtual Reality experience</p> <p><i>Each student had the chance to try a “triple A” *Virtual Reality experience, in order to have a better understanding of the many capabilities allowed by a tracked Virtual Reality high-end equipment.</i></p> <p>* Oculus Store App (https://www.oculus.com/experiences/rift/)</p> <p>*<i>The Climb VR, Titan of Space, Robo Recall, Spiderman Homecoming</i></p>	<p>2nd day</p> <p>8:15 – 12:00</p>
<p>Introduction to needed Workflow to develop a 3d native VR custom Content and a short talk about the coming technologies.</p> <p>After each student tried the Headset, the group has been shortly introduced to the needed *workflow so to be able to develop a custom 3d native virtual reality application and an hint about near future-coming *neural and *haptic devices that will definitely improve the immersive effect of virtual reality experiences.</p> <p>*3d modeling software (https://www.maxon.net/it/prodotti/cinema-4d/cinema-4d/)</p> <p>*3d real time render software (https://www.unrealengine.com/en-US/what-is-unreal-engine-4)</p> <p>*neural input device (https://www.emotiv.com/)</p> <p>*haptic suit (https://teslasuit.io/)</p>	<p>12:00 – 13:00</p>