Karlsruher Institut für Technologie

TU9 MOOC@TU9 www.tu9.de/mooc

Week 6 Task 2 – Virtual Engineering Laboratory

Describe one scenario in theory, how the lab tools could be used to help people, who are partially or full blind or deaf in their everyday lifes.

In the assignment you are confronted with a problem in the context of the Virtual Engineering Laboratory. Based on the presented ICT tools and smart technologies, conceptual approaches for solving exemplary everyday problems shall be elaborated. In the presentation by Dr. Volker Koch (Week 6 on mooc.tu9.de) for the task of the week the different tools available at the virtual engineering laboratory had been presented. Those technologies include:

- powerful rapid prototyping facilities like 3d-printers and laser cutters and 3-axis milling,
- easy prototyping plattforms to use different sensors and actors,
- Haptic Device Systems to model complex free-form shapes,
- Stationary and mobile 3D scanners to capture any free-form objects,
- Active 3D stereo projection system with gesture control and tracking support.

Your task is to describe one scenario in theory, how those tools could be used to help people, who are partially or full blind or deaf in their everyday lifes. Your task consists of three steps and should lead to approximate one sheet of text documenting all three steps.

1. Pick one or more of those tools. Do a brief analysis what are the key factors of this tool. You can group those by pros and cons in a table.
2. Decide which group of people you would like to assist with your idea and elaborate what are typical everyday problems for them.
3. Bring both steps together and describe how one of the tools could be used to solve or assist in one of the everyday problems.

If you need some more inspiration you can look at the projects page of the lab: http://blm.ieb.kit.edu/english/536.php.

1. Analysis of a tool:

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

2. Typical everyday problems:

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

3. Your idea and conclusion:

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

Finally don't forget to upload your document in the form.