

EXERCISE 6

1. Visual Representation of Virtual Environments

- (a) Why is stereoscopic vision alone not sufficient to fulfill all visual representation requirements of *Virtual Reality*?
- (b) What additional feature has to be included to provide a “holographic” perception?
- (c) What kind of hardware is required for that?

2. Stereo

Discuss the advantages and disadvantages of the stereo techniques

- Anaglyph,
- Polarization,
- Shutter, and
- INFITEC

with regard to the following criteria:

- Image Quality,
- Synchronization needs,
- Costs, and
- Screen material.

3. Displays

Discuss the advantages and disadvantages of *head-mounted displays* in comparison to *room-mounted displays* with regard to the following criteria:

- Field of view,
- Field of regard,
- Resolution and screen-door effect,
- Motion sickness, and
- Navigation volume.