Description:
When first using an HTC Vive, many users are surprised by the fact that looking down, there is no body and the controllers they are holding seemingly float in the air. A virtual avatar can be used to alleviate this problem, but missing information about the user’s pose turns the posing of the avatar into a difficult problem. The conventional approach is to use traditional inverse kinematics solvers. However, inaccurate positioning of the avatar can harm the user’s immersion. We want to investigate how much accuracy is needed for an immersive first person avatar experience.

Objective:
- Implement an Inverse Kinematics Solver
- Implement a simple VR Game
- Compare Motion Capture and Inverse Kinematics

Qualifications:
- Experience in C++ or C#
- Interest in VR and Computer Games
- Interest in Unity 3D/Unreal Engine

Contact ICG:
Jörg Müller
joerg.mueller@icg.tugraz.at