Markerless Real-time Tracking in Indoor Environments for Virtual and Augmented Reality Applications

Summer Term 2015

Michael Stengel, Prof. Marcus Magnor
Computer Graphics Lab, TU Braunschweig
Head Tracking for Virtual Reality
Limitations
Last SEP

- Usage of multiple cameras for optical inside-out tracking
Current SEP project

3 Degrees-of-Freedom

Orientation

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Michael Stengel, Computer Graphics Lab, TU Braunschweig
Current SEP project

3 Degrees-of-Freedom
Orientation
RGB+Depth

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Michael Stengel, Computer Graphics Lab, TU Braunschweig
Current SEP project

Markerless Real-time Tracking in Indoor Environments for AR/VR

Michael Stengel, Computer Graphics Lab, TU Braunschweig
Current SEP project

3 Degrees-of-Freedom
Orientation

RGB+Depth

6-Degrees-of-Freedom
Location

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Markerless Real-time Tracking in Indoor Environments for AR/VR

Michael Stengel, Computer Graphics Lab, TU Braunschweig
Required Skills

- coding in C++
- linear algebra and optimization
- knowledge in Computer Vision

Team Size

- 2x5 students
More information on: http://graphics.tu-bs.de/teaching/labs/ss15/sep/
Contact: stengel@cg.cs.tu-bs.de

Thank you.