1.1 CS7434: Augmented Reality

Module Aims:
- To provide students with a solid background in alternative 3D compositing techniques using computer vision with applications in interactive interfaces – most notably augmented reality interfaces on mobile devices.
- Provide students with a comprehensive knowledge in 3D vision
- Develop skills in the design and development of interactive augmented reality games

Module Prerequisites: Students must have successfully completed a course in computer vision e.g. CS7008/CS4053 and Graphics e.g. CS4052/CS7033 or equivalent.

ECTS: 5 ECTS

Teaching Semester: 2nd Semester

Module Coordinator: Professor Aljosa Smolic

Delivery: 2 Lectures and 1 Tutorial per week

Learning Outcomes:
When students have successfully completed this module they should be able to:
1. Develop interactive augmented reality applications for both PC based mobile devices using a variety of novel input devices
2. Demonstrate a knowledge of the research literature in Augmented Reality for both compositing and interactive applications

Module Content: Specific themes addressed within the module include:
1. 3D Vision
2. Approaches to Augmented Reality
3. Lighting and Illumination Issues in AR

Assessment:
This module is assessed 100% on the basis of course work. Assessments will include:
- 2 individual programming assignments in AR for 70%
- A research paper and/or presentation on AR for 30%

Supplemental assessment:
An assignment, followed by a report and a presentation for 100% (must be completed within date of the exam boards).

Website:
On blackboard