Vision Aided Navigation (086761) – Fall 2017

The course focuses on fundamental topics in vision aided navigation (VAN) and simultaneous localization and mapping (SLAM), which are essential for autonomous operation in unknown, uncertain or dynamically changing environments.

Topics to be covered include: Bayesian inference, state of the art SLAM and VAN approaches, and bundle adjustment. Depending on progress, some of the following advanced topics will be also briefly covered: multi-robot cooperative localization and mapping, active SLAM and belief space planning, intro/overview of recent deep learning approaches.

This joint-level course will be given in Fall semester 2017 on <u>Sundays, 13:30-16:30</u>. The course will be given in English to allow participation of international students.

Additional information:
- **Course syllabus & Further information**: link
- **Lecturer**: Assist. Prof. Vadim Indelman (AE, TASP), www