



Assistant for quality Check during Construction Execution Processes for energy-efficient buildings

The Problem

The ACCEPT project started with the recognition of a problem: modern buildings are designed to be highly energy efficient—however, this efficiency is quickly lost if the components responsible for it are improperly or sub-optimally installed. To this point, the construction sector (especially on-site work) has largely lagged behind other sectors in technological innovation and adoption. This is because technology used on construction site must be unobtrusive, use-friendly, intuitive and flexible.



[Watch the ACCEPT Video](#)

How ACCEPT can Help with your Construction?

With the recent advances in augmented reality and smart glasses technology—most notably in the form of Google Glass—suitable platforms are finally available for implementing innovation into this challenging sector. The Smart Glasses will unobtrusively provide workers on construction site with guidelines exactly when needed, while standardized workflows—defined by the site manager—for all workers can be displayed to coordinate construction process more efficiently and to control productivity as well as the overall quality of a building under construction.

Furthermore, the ACCEPT system allows to import from BIM software 3D models,

components/materials and related information of each construction project as well as to provide workers on site with visual instructions about work execution through augmented reality. This way, it is possible not only to minimize the energy-efficiency gap between as-planned and as-built project, but also to increase the overall efficiency, reliability and productivity of the construction.

Data related to the quality and energy performance will be collected passively on the construction site by workers wearing Smart Glasses and actively by using different sensors that can be accessed through a mobile devices. In addition, through the ACCEPT system it is possible to attach to physical objects virtual annotations in augmented reality, to exchange context-based information between workers and to access information stored in Wiki, directly on the construction site.

The data is processed in a cloud environment with self-inspection methods (e.g., checklist) to monitor current quality of a building under construction as well as to manage construction works and different professionals cooperating in the construction process. The construction progress and building performance are displayed on web-based Dashboard through graphs and indicators that are calculated in real-time.



Visit our Website on <http://www.accept-project.com>

The team:



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 636895.

www.accept-project.com