

# Master-IT: Project Work WS 2010 / 2011

## Topic: Mapping surfaces for error detection

### Area: Industrial Image Processing

- Start: September 2010
- Partner: Industry Project
  
- Tool: Matlab/Simulink
- Prerequisites: Programming know-how in Matlab's m-language

#### Description:

The surface inspection accords a high importance in industrial production, because the product quality depends on the visual representation apart from the reliable functionality. Especially in the area of mass-production there is a general need for fast and automated surface inspection.

In general products contain apart from homogeneous and slightly granular surfaces also areas with inhomogeneity (like edges, etc.). The aim of this project is to map the surface by using local support frequency based algorithms. The defect detection is executed by calculating local statistics on homogenous areas.

Tool: Matlab/Simulink

Prerequisites: Programming Know-how in Matlab m-language

#### Contact:

- Scientific Assistant: M.Sc. Karl Voth ([karl.voth@hs-owl.de](mailto:karl.voth@hs-owl.de))
- Supervisor: Prof. Dr.-Ing. Volker Lohweg