

Master 2016

Carlos Chacón Dauer

Development of a High Resolution Optical Topography Measurement System.

ABSTRACT - Masterthesis

Form and functionality of optical components can be evaluated by Experimental Ray-tracing. Since no mechanical contact between components is allowed to avoid any damage to Dut ´s surface, an optical method has to be developed. State of the art is use of variety of confocal sensors, deflectometry and interferometry.

In this work, a scanning approach using deflection and focus point information simultaneously, will be investigated. Developed method will be evaluated by measurements of shape of transparent objects like a given PAL (progressive addition lens) as well as on reflective objects. After verification, measurement cycle will be automated using an embedded controller.