UNIVERSITÄT DUISBURG ESSEN

Fachgebiet Hochfrequenztechnik

Fachbereich Ingenieurwissenschaften
Abteilung Elektrotechnik und Informationstechnik

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Aufgabe der Abschlussarbeit im
ISE Bachelorstudiengang

für: Herr Sven **Görres**

gestellt von: Prof. Dr.-Ing. Klaus Solbach
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Thema: **Development of a concept to combine and simplify different existing automatic test systems and subsequent implementation of a new test system software**

Beschreibung:

Novero in Bochum utilizes different types of automatic test systems during development, production and for certain customer care operations. They mostly consist of different hardware and software components and perform sometimes only slightly different tasks, making it complicated to easily introduce a new test plan for a new product amongst all test systems at once.

Thesis Task:
The task of the thesis work is to investigate similarities and differences between the test systems and point out a concept to create a combined software architecture to operate, if possible, all test systems from the same software base. This concept shall be implemented exemplary for one test system. In particular the task incorporates:

1. Analysis of the existing test systems (hardware, software and differences in the performed task)
2. Pointing out possible similarities, simplifications and ways of combining the test system software
3. Pointing out possible obstacles when combining the test system software
4. Developing a plan of how to combine the test system software
5. Definition of requirements to validate the result
6. Implementation of a software architecture for one test system
7. Testing of the new software implementation
8. Validation of the implementation according to the requirements defined
9. Identifying future development options to create a complete unified software architecture

At the end of the work, a public presentation of results is to be given.