

FREIE UNIVERSITÄT BERLIN
Fachbereich Mathematik und Informatik

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D I S P U T A T I O N

Montag, 25. August 2014, 14.15 Uhr

**Ort: Fraunhofer FOKUS, Raum 007
Kaiserin-Augusta-Allee 31, 10589 Berlin**

Disputation über die Doktorarbeit von

Herrn Peter Michael Kruse

Thema der Dissertation:

Enhanced Test Case Generation with the Classification Tree Method

Thema der Disputation:

Safety and Security of Cyber-Physical Systems

Die Arbeit wurde unter der Betreuung von **Prof. Dr.-Ing. I. Schieferdecker** durchgeführt.

Abstract: A cyber-physical system is a complex interconnection of services, applications, content and media, together with hardware and networks, on which society becomes increasingly dependent for critical activities such as public utilities, social services, government, learning, finance, business, as well as entertainment.

Consequently, cyber-physical systems have to meet high quality demands. Testing is the mostly used quality assurance technique applied in industry. However, the complexity of the technologies involved in cyber-physical system makes testing challenging and demands for novel approaches. For example, existing approaches do not offer a prioritization of certain test aspects during test generation. However, prioritization of test aspects can be important for a number of different reasons: Test resources are limited, testing is expensive, as it may be destructive, or it may be desirable to only use a subset of test cases as an initial test or in regression testing.

Die Disputation besteht aus dem o. g. Vortrag, danach der Vorstellung der Dissertation einschließlich jeweils anschließenden Aussprachen.

Interessierte werden hiermit herzlich eingeladen

Die Vorsitzende der Promotionskommission
Prof. Dr.-Ing. I. Schieferdecker