

FREIE UNIVERSITÄT BERLIN Fachbereich Mathematik und Informatik

Promotionsbüro, Arnimallee 14, 14195 Berlin

DISPUTATION

Freitag, 27. November 2015, 10.00 Uhr

**Ort: Arnimallee 6, Raum 009
(Mathematik/Pi-Gebäude), 14195 Berlin**

Disputation über die Doktorarbeit von

Herrn Mohammad Fal Sadikin

**Thema der Dissertation:
Efficient Security and Privacy Protection for Large-scale Wireless
Indoor Positioning Applications**

**Thema der Disputation:
Wireless Indoor Localization: Classification of Security and Privacy
Threats, the Major Drawbacks of State of the Art Solution,
and the Future Mitigation Strategy**

Die Arbeit wurde unter der Betreuung von **Prof. Dr. M. Kyas** durchgeführt.

Abstract: Wireless Indoor Localization is a prominent technology that is foreseen to be massively deployed in near future. It is location and sensing aware technology that can significantly improve the services, reduce operational and labor cost, increase productivity, and preserve the quality standards. Nevertheless, such emerging technology introduces tremendous security and privacy problem. This presentation outlines the taxonomy of such security and privacy problem in various layers of vulnerabilities. It ranges from physical layer vulnerabilities (e.g. relay attacks to track the user movements), network and transports layer vulnerabilities (e.g. cloning attacks, impersonation, resources consumption attacks, etc.), application layer vulnerabilities (e.g. various threats on unauthorized tracking and data privacy), to multi-layer or combination vulnerabilities (e.g. various technics of replay attacks, traffic analysis to reveal the user privacy, and so on). In addition, the state of the art of solutions to mitigate the threats is also discussed in this presentation

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

Interessierte werden hiermit herzlich eingeladen

Der Vorsitzende der Promotionskommission

Prof. Dr. M. Kyas