



## Kolloquium zur Masterarbeit

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### Collaborative Component Design System Using Blockchain Technology

The collaborative applications typically use client-server architecture. It is also possible to deliver the collaborative application in distributed architecture. Operational transformation algorithms or locking mechanism could be used to maintain the consistency of the resources in both architectures.

In the client-server architecture, a user of the collaborative application has to trust the server. In industry, trust is always an important topic to take into consideration. The blockchain is distributed in nature and based on asymmetric cryptography. The blockchain is suitable when actors from different organization want to collaborate however they do not ready to trust each other.

This thesis studying the collaborative application in the blockchain platform. On that way this thesis proposing a collaborative prototype. There are many blockchain platforms available. Three relevant blockchain platforms selected and compare them against the proposed prototype's user requirement and use cases. Selected three blockchain platforms studies in detail and a scoring system introduced to select the suitable blockchain platform out of three selected blockchain platforms. The proposed prototype implemented using selected blockchain platform and various experiments conducted to study the scalability of the proposed prototype in the selected blockchain platform. Also, a study included about the comparison between client-server architecture and blockchain distributed architecture for the collaborative applications.

Mittwoch, 23. Januar 2019, 15:30 Uhr,  
Besprechungsraum 106, IfI (D3), Julius-Albert-Str. 4.