UNIVERSITÄT
BAYREUTH

Ansprechpartner	Telefon	E-Mail
Fabiane Völter	+49 157 36582884	fabiane.voelter@fim-rc.de

Bachelorarbeit

Architectural Design and Governance of Blockchain-based Systems

Blockchain-based systems are transitioning from small prototypes to mainstream applications. A large factor in this transitioning to mainstream applications is the design of the architecture and governance model of blockchain-based systems. This includes but is not limited to role management (e.g. the ability for participants to read and/or write), the configuration of the degree of transparency and the interplay of components. Currently the architecture and governance is designed mostly use-case specific. Hence, the aim of this thesis is to review existing literature on the development of architectural design and governance of blockchain-based systems in order to identify recurring patterns.

Empfohlene Einstiegsliteratur:

- X. Xu *et al.*, "A Taxonomy of Blockchain-Based Systems for Architecture Design," *2017 IEEE International Conference on Software Architecture (ICSA)*, Gothenburg, 2017, pp. 243-252, doi: 10.1109/ICSA.2017.33.
- Beck, Roman; Müller-Bloch, Christoph; and King, John Leslie (2018) "Governance in the Blockchain Economy: A Framework and Research Agenda," *Journal of the Association for Information Systems*: Vol. 19 : Iss. 10 , Article 1.
- Schollmeier, Rüdiger. "A definition of peer-to-peer networking for the classification of peer-to-peer architectures and applications." *Proceedings First International Conference on Peer-to-Peer Computing*. IEEE, 2001.

Betreuer: Fabiane Völter, M. Sc.