

Bachelor project: Design and Implementation of a Smart Contract Based Solution

Semester: Winter term 2018/19

Language: English

Motivation:

Blockchain technology is considered to have a great potential and a wide range of applications. Many claim that its applications will revolutionise different sectors, which will, as a result, undergo a disruptive change.

Description:

The aim of this bachelor project is to implement a smart-contract based solution supporting a selected scenario. To this aim, the following steps would need to be undertaken (please note that the exact scope of the project will be adjusted taking into account the actual size of the group of students carrying it out):

- Analysis of the blockchain technology and available platforms and solutions.
- Definition of an application scenario.
- Design and implementation of a solution.
- Evaluation.
- Preparing a project report and documentation.

Introductory literature:

- Damen, C. (2017) Introducing Ethereum and Solidity
- Welzel, C.; Eckert, K.; Kirstein, F.; Jacumeit, V. (2017) Mythos Blockchain: Herausforderung für den öffentlichen Sektor

Expected outcomes: Implemented solution; Documentation, Project report describing the results of the work, among others, rationale standing behind the selected scenario, introduction of the selected scenario, description of the available/selected platforms/mechanisms, design and details of the implementation, evaluation results, and a critical assessment of the maturity of blockchain technology as well as the work conducted within the project.

Size of the group: 3-6

Application procedure: Please apply via email to the supervisor. Please attach a short letter of motivation (app. ½ A4 page) and a recent performance record ('Leistungsnachweis'). You can apply individually or in a group of 2-3 participants (in this case each person should still send a separate e-mail,

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however point to the other members of the group). In case you are applying also for other projects, please mention it in the email.

Application deadline: 2018-10-23.