

AUFGABE DER MASTERARBEIT

im Studiengang „Elektro- und Informationstechnik“

für: Verfügbar

gestellt von: **Prof. Dr.-Ing. Andreas Czylwik**

Thema: Implementation of Coding and Interleaving for CDMA-OQAM-OFDM

To improve the reliability of OQAM/OFDM transmission, the original message can be spread by a spreading code as done in Code Division Multiple Access (CDMA). Although the data rate will be significantly decreased, the transmission will be more robust against interference.

A further step to improve the reliability is to add channel coding and interleaving to the transmission chain. In this thesis, a coded CDMA-OQAM-OFDM shall be implemented using MATLAB. Furthermore, the performance of the coded system shall be compared with uncoded CDMA-OQAM-OFDM and coded CDMA-CP-OFDM.

The task entails the following:

- Creating a time and work plan,
- implementation of coding and interleaving for CDMA-OQAM-OFDM,
- comparing coded with uncoded CDMA-OQAM-OFDM,
- comparing coded with coded CDMA-CP-OFDM,
- documentation of the work,
- final presentation of the work, and
- submitting a digital copy of documentation and presentation in PDF format.

Zweitgutachter: Prof. Dr.-Ing. Jan C. Balzer

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