### Module title
Data Compression

### Abbreviation
10-I=DK-102-m01

### Module coordinator
holder of the Chair of Computer Science II

### Module offered by
Institute of Computer Science

### ECTS
8

### Method of grading
numerical grade

### Only after succ. compl. of module(s)
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### Duration
1 semester

### Module level
graduate

### Other prerequisites
Where applicable, prerequisites as specified by the lecturer at the beginning of the course (e.g. completion of exercises).

### Contents
Entropy coding, text compression, dictionary methods, block transformations, image compression, human visual system, bitplane techniques, predicative methods, hierarchical transformations, discrete cosine transform, wavelets, JPEG baseline, JPEG 200, subband coding, fractal compression, vector quantisation, video compression, MPEG standards, audio compression.

### Intended learning outcomes
The students possess the methodic knowledge and practical skills for the development and use of compression methods for text, image, video and audio data.

### Courses
V + Ü (no information on SWS (weekly contact hours) and course language available)

### Method of assessment
written examination (approx. 80 to 90 minutes). If announced by the lecturer by four weeks prior to the examination date, the written examination can be replaced by an oral examination of one candidate each or an oral examination in groups. A 80 to 90 minute written examination is equivalent to a 20 minute (approx.) oral examination of one candidate each, a 30 minute (approx.) oral examination in groups of 2 and a 40 minute (approx.) oral examination in groups of 3.

Language of assessment: German, English if agreed upon with the examiner

### Allocation of places
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### Additional information
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### Referred to in LPO I
(examination regulations for teaching-degree programmes)

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### Module appears in
Master's degree (1 major) Computer Science (2010)
Master's degree (1 major) Mathematics (2010)
First state examination for the teaching degree Gymnasium Computer Science (2009)