Module MA-INF 2212	**Selected Topics in Signal Processing**		
Workload 180 h	**Credit points** 6 CP	**Duration** 1 semester	**Frequency** every year
Module coordinator	apl. Prof. Dr. Frank Kurth		
Lecturer(s)	apl. Prof. Dr. Frank Kurth, Prof. Dr. Michael Clausen		
Classification	**Programme** M. Sc. Computer Science	**Mode** Optional	**Semester** 2.
Technical skills	• Introduction into selected topics of digital signal processing; • Applications in the field of Audio Signal Processing; • Methods of Automatic Pattern Recognition		
Soft skills	Audio Signal Processing Applications; Extended programming skills for signal processing applications; Capability to analyze; Time management; Presentation skills; Discussing own solutions and solutions of others, and working in groups.		
Contents	The lecture is presented in modular form, where each module is motivated from the application side. The presented topics are: Windowed Fourier transforms; Audio Identifications; Audio Matching; Signal Classification; Hidden Markov Models; Support Vector Machines		
Prerequisites	**Required**: None of the following modules have been passed: MA-INF 2203 – Selected Topics in Signal Processing		

Format

Teaching format	**Group size**	**h/week**	**Workload[h]**	**CP**
Lecture	60	2	30 T / 45 S	2.5
Exercises	30	2	30 T / 75 S	3.5

T = face-to-face teaching; S = independent study

Exam achievements	Oral exam	(graded)
Study achievements	Successful exercise participation	(not graded)
Forms of media	Slides, Blackboard, Whiteboard	
Literature		