

Course title: Speech Information Systems	Neptun code: GEVAU404-a
Course coordinator: Dr. László Czap, PhD, professor	
type of lesson and number of lessons: lecture (2)	
method of evaluation: colloquium	
curriculum location of the subject: (autumn/spring semester): autumn and spring	
pre-study conditions (<i>if any</i>): -	
The task and purpose of the subject:	
Speech Information Systems provides the students with a practical introduction to the wide range of important concepts in digital speech processing. It serves as a reference for students embarking on speech research.	
Course description:	
The elements of the natural speech chain and their operation. Basic concepts of human speech production, speech perception and speech understanding. The most important characteristics of the acoustic structure of speech. Suprasegmental features. Basic methods of speech coding (PCM, formant, LPC). Audio compression. Methods of speech synthesis, audiovisual speech processing. Basic concepts and basic architectures of speech recognition. The main phases of the operation: feature extraction, time warping, and clustering procedures. Different levels of speech recognition.	
Required literature:	
1. Lawrence R. Rabiner and Ronald W. Schafer: Introduction to Digital Speech Processing https://research.iaun.ac.ir/pd/mahmoodian/pdfs/UploadFile_2643.pdf	
Recommended literature:	
1. Dan Jurafsky and James H. Martin: Speech and Language Processing https://web.stanford.edu/~jurafsky/slp3/	