Statistical Natural Language Processing

Prerequisite: None

Credit Hours: (3)

This course will focus on basic to advanced statistical techniques and methods in natural language and speech processing and its applications on speech and language technologies such as machine translation, question answering, language modeling, document clustering, speech processing. The syllabus contains mathematical foundations including probability theory, information theory, hypothesis testing, statistical inference, hidden markov models and statistical speech and language processing and its applications in part-of-speech tagging, machine translation, document clustering, document classification, speech enhancement, speech recognition and speech synthesis etc.