

Zgłoszenie tematu **INŻYNIERSKIEJ** pracy dyplomowej

STUDIA I STOPNIA rok akademicki 2021/22

Promotor:	dr hab. Jozef Kapusta, prof. UP
Temat pracy dyplomowej (j. polski, j. angielski):	Design of the Methods for the Speeches Analysis <i>Projektowanie metod analizy przemówień</i>
Zakres pracy i oczekiwane rezultaty praktyczne:	Natural Language Processing is a sub-field of Artificial Intelligence that is focused on enabling computers to understand and process human languages, to get computers closer to a human-level understanding of language. The aim of the practical part is to create a set of methods in Python for the speakers analyse. There are many full-text speeches datasets (white house speeches, Pope Francis' speeches, etc.). Advanced features of speeches will be obtained from the morphological analysis (part of speech tags). The morphological analysis of speakers will contain the analysis of differences between parts-of-speech (count of interjections, adverbs, adjectives, etc.), count of words in sentences, count of positive and negative words, etc. The student will be using known libraries (NLTK, UDPipe, Polyglot, TreeTagger etc.) and some selected solution for machine learning. An important part of methods must be results visualization of differences between speakers.
Aspekt inżynierski*:	Selection and implementation of natural language processing methods, modify methods for specifics problem, analysis of results.
Wymagane oprogramowanie/języki programowania**:	Jupyter Notebook (Python)
Środowisko uruchomieniowe**:	
Dodatkowe wymagania i uwagi:	English Language
Literatura**:	<ol style="list-style-type: none"> 1. Steven Bird, Ewan Klein, and Edward Loper: Natural Language Processing with Python - Analyzing Text with the Natural Language Toolkit. O'Reilly Media, 2009. 2. Benjamin Bengfort, Tony Ojeda, Rebecca Bilbro: Applied Text Analysis with Python: Enabling Language - Aware Data Products with Machine Learning, O'Reilly Media, 2018, 332 p. 3. Natural Language Toolkit, online: https://www.nltk.org/.

*należy uzasadnić/wskazać, czy praca spełnia wymagania inżynierskie

**pola opcjonalne