In this thesis, I have designed and implernented a new language model for speerh recognition.

The innovative part of the language model is the integration of the HMM-tagger component designed by myself. The HMM tagger can be used as a stand-a.lone disambiguation tool and, when combined with the hand written rules, it is currently the best disarnbiguation tool for Czech language in terrns of error rate.

I have perforrned a speech recognition experiment on a highly inflectional language (Czech) where I tested the proposed language model. I have shown that the accuracy of the novel language model outperforms other state--of---the--·-art Czech language models.