## Abstract (in English)

The master's thesis addresses the topic of measuring competencies associated with the 4th industrial revolution or Industry 4.0 among a sample of bachelor students from the Faculty of Science and Faculty of Arts at Charles University. The aim of the thesis is to create and test a model of competencies related to the 4th industrial revolution. A sub-objective is to compare the self-assessed competency levels among the sample of bachelor students based on faculty, study program, and academic year. The thesis includes a focus group and a questionnaire survey, in which a total of 863 bachelor students from the Faculty of Science and Faculty of Arts participated. The model of competencies related to the 4th industrial revolution is tested using confirmatory factor analysis, and differences in the levels of individual competencies are analyzed among the sample of students using parametric and non-parametric methods. Confirmatory factor analysis with *WLSMV* estimation demonstrated that the hierarchical model of competencies is in good agreement with the collected data (*CFI = 0.973, TLI = 0.967, RSMEA = 0.055, SRMR = 0.058*), and it can be applied in measuring competencies. The results of comparing self-assessed competencies indicate that there are no statistically significant differences in the self-assessment of 4.0 competencies between the sample of students from the Faculty of Science and Faculty of Arts. No statistically significant differences in self-assessed 4.0 competencies are found among students in different study programs at both faculties. In the sample of students from the Faculty of Science, it was shown that there are no statistically significant differences in self-assessed 4.0 competencies among different academic years. The master's thesis is a unique contribution to the political-economic debate on the preparedness of university students entering the job market in the context of the 4th industrial revolution.