Supervisors´ assessment of the cooperation with PhD candidate – Michal Gerža MSc

Michal Gerža MSc. started his PhD studies of the program of Engineering informatics in school year 2012/13. At this time he was already an experienced programmer in the branch of modelling, simulations and optimization of polymer processing. He started his PhD studies at the time, when the laboratory of the e- experiments at the Department of electronics and measurements already basically existed in a simple form and scientific activities were already running. His assignment was to change the controlling module Measureserver function in the direction of increased "Intelligence " in a way, to enable the inclusion of many other functionalities. Especially it was on the one hand the need of increased reliability of the measuring process and on the other inclusion of the model of the measured phenomenon, its physical substance and the influence of its parameters on the outcome of the measurements. For the purpose was gradually built Diagnostics of the 1st level, signalling to the client the function of the e-experiment. Subsequently, Diagnostics of the 2nd level was built, which, by means of the comparison of standard and acute state of e-experiment, provided in real time the readiness of the e- experiment for correct and flawless measurements. This functionality called for the building of the diagnostic server outside of the e-experiment, placed on the level of RLMS REMLABNET and its virtualized cloud.

In the third step M. Gerža MSc. dealt with the problem of embedding of a synchronized multiparameter simulation of the measured phenomenon for the purpose of the comparison of the measured and modelled data. This step, very progressive for the teaching process, enables the client to find parameters of the phenomenon in question and their influence on the outcome of the measurement (sensitive analysis). Just by this step the module Measureserver changed its name to Intelligent Measureserver. At present, M. Gerža MSc. deals with another improvement towards the universal Intelligence Interface, enabling the inclusion of arbitrary measuring instrument in the setup of the e-experiment.

The supervisor cooperation with M. Gerža MSc. may be evaluated as highly inspiring and innovative. His thesis is the result of all his extensive activities and strict scientific approach in solving all new, hitherto not solved problems of Informatics. He took part in a series of

international conferences and is the author/co-author of 13 papers with results of his activities in international journals, published exclusively in English.

Concluding, I may declare that during M. Gerža MSc. PhD study program activities of Engineering Informatics, he gained knowledge, which put him into a small group of specialists on computer-oriented measurement systems and corresponding advanced data processing, which circumstance I am leaving on the board for the defence of the PhD thesis.

Zlin, 15. 8. 2017   prof. dr. F. Schauer, DSc