Tutor's evaluation of PhD student Ing. Ondřej Miláček

I am very happy that the long journey of Ondřej's dissertation is finally approaching the end. Ondřej in the beginning of the PhD study period was student working in "waves" (sometimes he worked very hard, sometimes it was hard to find him); anyhow towards the deadline he intensively worked in the laboratory in order to finish his thesis.

Ondřej prefers "hands-on" approach over theoretical studies. From this perspective if he redesigned a test stand, designed the cooling system, etc. it was always he, who did the final assembly/disassembly of the mechanism. This practical attitude took him time, what he could dedicate to analyses and data processing, but he gained another important engineering experience.

Covid distancing slowed down the tests during final phase of thesis preparation. Unfortunately during this period the research progress was very limited. Some further administrative obstacles appeared during the year 2022. Therefore, it took more than 1 year between the submission of the thesis and the today's date of the defence.

Ondřej did a lot of work (all the redesigns, or additional equipment to the test stand described on pages 31-45 are his work). The shift robot was mainly designed in frame of diploma thesis, but Ondřej was the tutor. He programmed (or for majority participated) for the data acquisition and control of the test stand. He equipped the stand with all necessary instruments, to enable stand operation in unmanned mode.

Further he prepared the SW for calculation of geometry and kinematics. He decided to prepare the SW in time when asymmetric gear were not integral part of commonly offered SW (like Kisssoft). He spent a lot of time in preparation, which in time he finished it became regular part of Kisssoft.

He did the FEM calculation and of course he proceeded with all the tests and data analysis, etc.

Ondřej proved his capability to design and calculate unique mechanical structures, design and calculate the gearwheels, to provide all necessary drawings for manufacturing, to programme the SW for data acquisition and control of the test stand, proceed with vibration analysis, treat and analyse measured data, proceed with FEM analysis, and if necessary to jump in the role of mechanic. In time, he worked on CTU he completely renewed the lectures and exercises of gearwheel geometry, kinematics and strength calculation dedicated for master students of automotive engineering.

Gabriela Achtenová
28th March 2023, Prague