

SUPERVISOR'S OPINION

for the defense of doctoral thesis of Eng. **Gustinna Wadu Rohitha KEERTHIWANSA**

The field of a description of rubber mechanics is a very current discipline today. This area has undergone rapid and intensive development, especially in the last 70 years, and this development is still ongoing. The topic chosen by the student has required deep knowledge in the theory of nonlinear mechanics, as well as practical skills in the area of experimental determination and description of elastomer properties and in the field of statistical analysis and evaluation of the measured data.

As an initial step, the student verified several hypotheses using previously measured data, and by the conclusion of that he could then design his own final hypothesis and experiment to verify it. The design, testing and especially the processing and evaluating of experimental data was very time consuming and required the use of advanced tools and methods of mathematical statistics. This is due to the type of measured outputs, which are series of discrete points that cannot be interpolate by continuous regression for next processing.

I appreciate the way in which the student worked out his dissertation and his very active approach to study throughout it. I would like to appreciate his willingness to perform given tasks and his willingness to learn new things and skills. If it was in his possibilities, he never refused help and he performed his duties conscientiously and as soon as possible.

The student fulfilled all his study duties according to the study plan within the set deadlines, and from the beginning of his studies he actively published papers in the journals and participated in conferences. During his whole studies, he was a member of the research team of the TBU Internal Grant Agency (IGA) projects.

Another fulfilled study duty of the student is completing a two-month internship abroad at the University of Yamagata in Yonezawa, Japan, where he experienced in the testing the properties of thermoplastic elastomers.

As the supervisor, I am fully satisfied with the approach of the student to study and research, and I asses Eng. Gustinna Wadu Rohitha Keerthiwansa as an excellent student.

Zlín, November 11, 2020

doc. Ing. Jakub Javořík, Ph.D.