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## Development and use of optimization script for fitting material properties

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Progressive methods and technologies are the key to the dynamic development of the automotive and electrical engineering industries. It is necessary to support dynamic development by automation in all development stages. For the reasons described above an experimental programme dealing with the measurement and subsequent fitting the data was designed and implemented within investigating a research project.

The main objective of the programme was to find a quick way of processing and subsequent use of the measured material data used for numerical simulations of a forming process. Within the project investigation, the optimization script the main objective of which is quick and efficient data fitting from material tests such as pressure tests, tensile tests, shear tests, or technological tests such as spike tests, was programmed. Another advantage of using the script is in keeping trends among particular loading states, which allows fitting over several measurement tasks. A series of successful tests that were used for dealing with the problem in the commercial sector could be carried out due to the research programme.

### Biography

Miroslav Urbánek is a PhD student in the the University of West Bohemia in Pilsen. Since 2006, he is a researcher in the Department of Numerical Simulation and Engineering Design of the company COMTES FHT. He has published more than 20 research papers and utility designs.

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