Abstract:
The lack of measured data is a problem that often occurs when modeling physical human properties. This problem also occurs when trying to describe the human thigh with a finite element model. In this pilot study, an experimental chair was used to gather the required information. Each cushion of the chair consists of 81 pistons. Each piston is controlled individually by a computer. This experimental chair was used in two experiments. In the first experiment, the chair was used to measure the force length characteristics of deformed human thighs during unsupported sitting. In the second experiment, the measurement of the characteristics of undeformed thighs deformed by one piston was attempted. In this paper the test stand, the test procedures, the results and further experiments will be discussed.