An application of the artificial neural network to the numerical modelling of the experimental data and simulations of the extrusion processes

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SUMMARY

The Artificial Neural Network (ANN) is employed to find complex dependencies between parameters and output values of the experiment. The procedure is compared with the more conservative approach known as regression analysis. The proposed approach is applied to the experimental analysis of the extrusion of the aluminium hollow sections in order to develop ability of numerical simulation of the process. The accuracy and reliability of the method is discussed as well as training efficacy.