



SOM - Self Organizing Maps in comparison with other neural networks for the identification of Pacejka formula parameters of lateral break force vs slippage.

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There are different methods to fit the values of Pacejka-96 Formula parameters, but this is the first time that through Self Organizing Maps interactively, we can obtain the optimum Pacejka-96 tyre model parameters. The aim of the research is the use of a neural network such as SOM Self Organizing Map to obtain parameters for the mathematical Pacejka formula braking curves reproduce lateral brake force vs lateral slip of a vehicle taking into account factors that affect the rolling.

A comparison of several neural networks has demonstrated that SOM methodology is better for obtaining Pacejka-96 lateral brake formula parameters of the lateral brake-slide relationship when presented with data not used in network training.