

Task 1

By training an Artificial Neural Network (ANN), identify relation between 3 inputs and one output.

- Choose a suitable structure.

Use black box approach (no information about the function is available). Use data from file homework1.mat.

- Proof that the trained network works correctly. Mean Square Error (MSE) on a validation set is less than 0.01. Validation set should consist of at least 100 points.

- Estimate minimal number of neurons in the hidden layer providing required accuracy (MSE on a validation set is less than 0.01).

Task 2

- Design a Neural Network capable of summarizing 5 inputs in the rang [-10 10].

Submit a report describing all steps and validation of the results to eduard.petlenkov@ttu.ee.