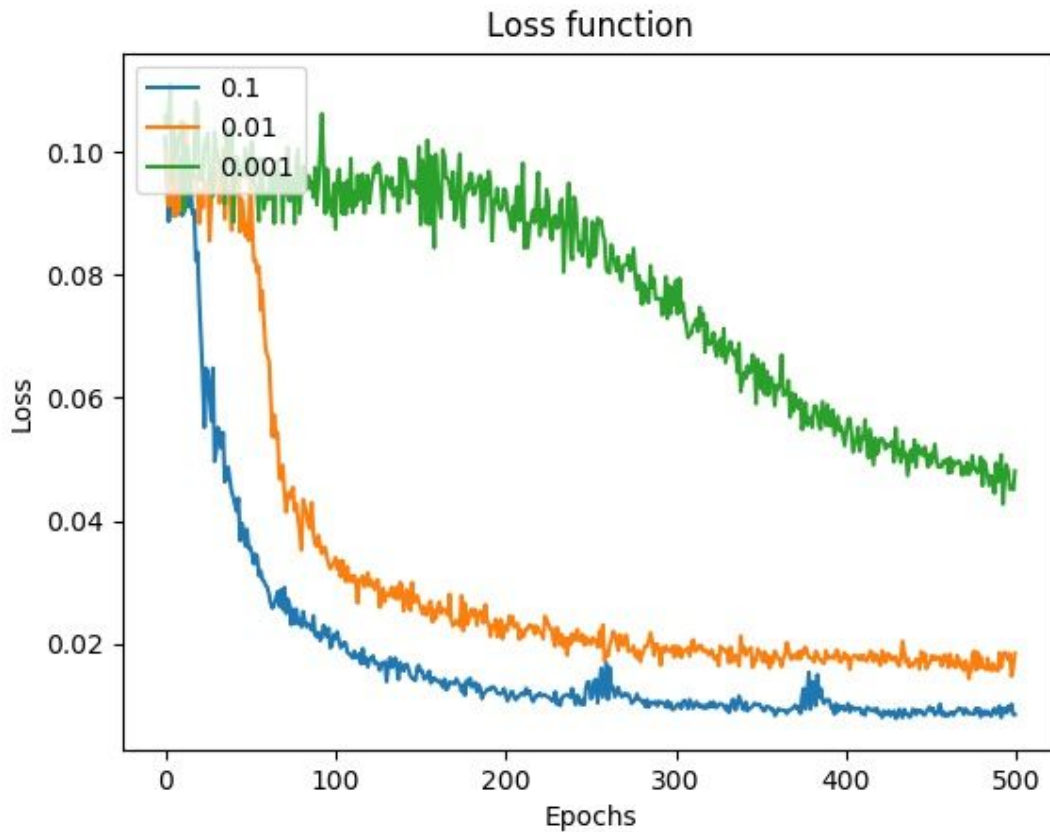


## Machine Learning LAB. Exercise 3 - Autoencoder .

### 1. Loss function.

Plot below presents value of Loss function for three different learning rates. As we can see the highest learning rate has achieved the best performance.



## 2. Comparison of reconstructed numbers.

Pictures on the left show input ones on the right show reconstructed numbers. There is 6 pairs of numbers, two for every learning rate. First two pairs are created with autoencoder trained with learning rate 0.001, next two with 0.01 and last two with 0.1. As we can see best results were obtained with the biggest learning rate, we can easily recognize the shape of numbers. I think that the same result might be obtained also with smaller learning rate however training process would take more time. My commented code is available on [github](#).

