

I.E. Livieris. [Improving the classification efficiency of an ANN utilizing a new training methodology](#) . *Informatics*, 2018.



Abstract - In this work, a new approach for training artificial neural networks is presented which utilizes techniques for solving the constraint optimization problem. More specifically, this study converts the training of a neural network into a constraint optimization problem. Furthermore, we propose a new neural network training algorithm based on L-BFGS-B method. Our numerical experiments illustrate the classification efficiency of the proposed algorithm and of our proposed methodology, leading to more efficient, stable and robust predictive models.