The demand of energy is rapidly growing in today’s world, the energy production and the efficient use of energy is as important as never before. For this reason, the feasibility study of new projects should be carried meticulously out and the optimum way of use of existing projects should be searched. Optimum energy usage is possible with predicting the amount of energy production. In this study, the capacity of energy production of Oymapinar Hydroelectric Station in Turkey’s Mediterranean region is tried to forecast using artificial neural networks. The inputs are the elevation of surface of lake, the lake volume, the charging flow rate and the amount of water to produce energy. As output, the energy production amounts are approximately given.

Keywords: Oymapinar, hydroelectric station, ANN, forecast;