ABSTRACT
Cruise ports emerged as an important sector for the economy of Turkey bordered on three sides by water. Forecasting cruise tourism demand ensures better planning, efficient preparation at the destination and it is the basis for elaboration of future plans. In the recent years, new techniques such as; artificial neural networks were employed for developing of the predictive models to estimate tourism demand. In this study, it is aimed to determine the forecasting method that provides the best performance when compared the forecast accuracy of Multi-Layer Perceptron (MLP), Radial Basis Function (RBF) and Generalized Regression neural network (GRNN) to estimate the monthly inbound cruise tourism demand to Izmir via the method giving best results. We used the total number of foreign cruise tourist arrivals as a measure of inbound cruise tourism demand and monthly cruise tourist arrivals to Izmir Cruise Port in the period of January 2005–December 2013. We reutilized to appropriate model. Experimental results showed that radial basis function (RBF) neural network outperforms multi-layer perceptron (MLP) and the generalised regression neural networks (GRNN) in terms of forecasting accuracy. By the means of the obtained RBF neural network model, it has been forecasted the monthly inbound cruise tourism demand to Izmir for the year 2014.