

Artificial Neural Networks for Demand Forecasting

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Abstract: This paper presents an application of artificial neural networks in demand forecasting, using MATLAB's Neural Network computational tool. Bearing in mind that, in any planning process, forecasts play a fundamental role, being one of the bases for planning, organizing and controlling production, giving priority to the most critical nodes and their key activities, so that the decisions made about them generate the greatest possible positive impact. The methodology applied demonstrates the quality of the solutions found, when compared with those developed by other authors. Where the results show that the minimum quadratic error is reached with the application of artificial neural networks, obtaining a better performance and thus establish an adequate horizon for the use of artificial intelligence in production processes within the industry.

Keywords: Artificial Neural Networks, Demand Forecasting, MATLAB