

# **Manufacturing Data Forecasting Based on ARIMA and Artificial Intelligence Neural Network Model**

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## **Abstract**

We are into the technology era which means we have to utilize the maximum power of computational engineering to improve the manufacturing goals of a company. In this paper we have proposed a theory which will discuss how we can achieve it by using the Time forecasting and Artificial Neural Network for predicting the possible outcomes in Production and sales. This will help the industry to be ready for all possibilities. As we assume that in the manufacturing industry Manpower is the key factor and if we predict the quantity of the production required to be produced for upcoming months then the manufacturing company will be ready with the raw material and manpower which means the accurate planning will increase the profitability of the company. This paper is the combination of ARIMA Model using time forecasting and artificial neural network algorithms to analyze annually the manufacturing process of a company using the three major domains of procurement, marketing and sales. This paper will focus on the technique of data forecasting by using the previous information about raw material, purchase and production. We will achieve this by combining two modules together to show the output and accuracy both modules are compared. We have proposed the ARIMA module for time forecasting with the combination of artificial neural network algorithms which will be used to make the possible predictions based on available data.

## **Keywords**

ARIMA, Artificial Neural Network model, forecasting, Raw material, Production Prediction model.

## **Biographies**

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