

Prediction of Bath Temperature Using Neural Networks

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Abstract: In this work, we consider an application of neural networks in LD converter. Application of this approach assumes a reliable prediction of steel temperature and reduces a reblow ratio in steel work. It has been applied a conventional model to charge calculation, the obtained results by this technique are not always good, this is due to the process complexity. Difficulties are mainly generated by the noisy measurement and the process non-linearities. Artificial Neural Networks (ANNs) have become a powerful tool for these complex applications. It is used a backpropagation algorithm to learn the neural nets. (ANNs) is used to predict the steel bath temperature in oxygen converter process for the end condition. This model has 11 input process variables and one output. The model was tested in steel work, the obtained results by neural approach are better than the conventional model.

Keywords : LD converter, bath temperature, neural networks