Prediction of Bath Temperature Using Neural Networks

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

Keywords : LD converter, bath temperature, neural networks