GENERATION OF DESTINATION OPTIONS FOR SEMI-PRODUCTS OF STEEL IN STEEL COMPANIES

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ABSTRACT

The best destination options of the semi-products heats to produce finished steel profiles in the steel industry lamination shops are those for which the excess of mechanical properties respecting the normed ones is minimized, assuring its normed required values. In this process the estimation of mechanical properties of the heats starting from its chemical composition, and traverse surface of the finished profiles becomes necessary. In the present work this estimation is done by regularized radial based neural networks, starting from the available mechanical properties data obtained from the quality control of the workshops adopted as study cases. The use of these networks allows diminishing the errors in the mechanical properties estimation. Satisfactory results are obtained in generating destination options in a case study.

Keywords: Production Management, Materials Selection, Radial Basis Neural Networks, Regularization.