Optimal operating conditions for the primary end of an integrated steel plant : genetic adaptive search and classical techniques

B.DEO et al.

The optimal operating conditions for the primary end of an integrated steel plant, which

essentially comprises of sintering plant, pelletizing plant, blast furnaces, oxygen steelmaking converters and electric arc furnace, are found through a modern technique of optimization, namely, genetic adaptive search (GAS), and also through classical techniques of simplex search with simulated annealing (ASM) and sequential quadratic programming (SQP). A

comparison of these techniques shows that GAS outperforms both the classical methods and obtains the lowest cost solution. Based on this study, it is recommended that GAS be used, in preference to other methods, in complex steel plant optimization problems.

お詫び 「鉄と鋼」Vol.83(1997)No.12の日次中、ISIJ International掲載記事の巻数に誤りがございましたので、次のとおり訂正させていただきます。読者各位にご迷惑をおかけいたしました。お詫びして訂正いたします。

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