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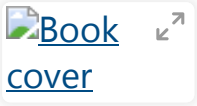

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Experimental Investigation for Energy-Conscious Welding Based on Artificial Neural Network

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Abstract

The selection of input parameters in joining processes has remained a crucial task due to the energy-intensive behavior of welding processes. Low carbon alloy steel is the most widely welded material in the industry. The Manual Metallic Arc Welding (MMAW) of mild steel is most well-known among all welding procedures, as it offers a low-cost remedy, finds extensive use in structural work, restoration, & maintenance. The current study focuses on selecting suitable MMAW parameters for welding mild steel, taking into consideration power and joint quality as