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### **Transient temperature distribution on gas metal arc welded plate caused by moving tilted volumetric heat source**

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In present study, an attempt has been made to determine transient temperature distribution on Gas Metal Arc Welded plate caused by moving tilted volumetric heat source. It has been assumed that the shape of heat source is ellipsoidal; the heat has been distributed on welded plate through Gaussian manner and travel angle is  $35^\circ$ . In this paper an analytical solution of temperature field on welded plate has been presented which is intuitive from the solution of general heat conduction equation. Good agreement between predicted and measured temperature fields has been achieved.

#### **Biography**

N K Singh has completed his PhD at the age of 38 from Jadavpur University Kolkata India. He is presently Associate Professor(Workshop) and Sectional Head of the Central Workshop under the Department of Mechanical Engineering and Mining Machinery Engineering Indian School of Mines, Dhanbad India, a reputed academic institution in various fields of Engineering , Mining Engineering and Applied Sciences. He has published more than 30 papers in reputed national and international journals as well as national conference proceedings. He is member of various national professional societies.

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