



People's Democratic Republic of Algeria
Ministry of Higher Education and Scientific Research
University of Echahid Hamma Lakhdar - El Oued
Faculty of Exact Sciences
Department of Physics



CERTIFICATE OF PARTICIPATION

This certificate is presented to:

Younes Benarioua

Presented a **Poster** in " The Third International Conference on Materials, Energy & Environment (MEE'2025) " which took place on April 21-22, 2025 in El Oued - Algeria.

The presentation was titled: "**Obtaining and characterizing steel parts assembled by electric welding: Comparative study of MIG and TIG processes**"

Co-authors:





Obtaining and characterizing steel parts assembled by electric welding: Comparative study of MIG and TIG processes

Younès Benarioua

Department of Mechanical Engineering, Faculty of Technology,
University of M'sila, Bordj Bou Arréridj Road, 28000 M'sila, Algeria
younes.benarioua@univ-msila.dz, benariouayounes@yahoo.fr;

Welding is the technique of assembling more metal parts with or without bringing metal. The several welding processes have been regrouped in a group of fusion welding. This last is based on the principles of heat application to assemble the materials to be welded. Different welding processes are determined by the thermal energy source whether it results from electrical, chemical and mechanical energy, with a variety of different techniques available.

The objective of this work is a comparative study of steel parts joined using two types of electric arc welding (TIG and MIG) by varying certain technological parameters corresponding to the processes used. This study focuses on obtaining weld beads between steel parts and characterizing these joined parts using different analysis and control methods.

Keywords: Welding ; Steel ; MIG process ; TIG process