

# STATION-BASED DESIGN AND OPTIMIZATION SOLUTION FOR AUTOMATIC ROBOT WELDING SYSTEM OF TRUCK CHASSIS

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### Tóm tắt bằng tiếng Việt:

Applications of modern technologies for automatizing manufacturing processes take priority in industrial development strategies of Vietnam nowadays. Truong Hai Auto Joint Stock Company is a typical example. The manipulator welding robot is being interested to increase the automation level and improve the product quality. This paper presents a research result on application of robotic welding for welding system of truck chassis in car factory. This work takes part of a project in collaboration with Truong Hai Auto Joint Stock Company. This paper particularly focuses on presenting optimization problem to minimize the welding time of struck chassis. The manipulator welding robot is being interested to increase the automation level and improve the product quality. This paper presents a research result on application of robotic welding for welding system of truck chassis in car factory. This work takes part of a project in collaboration with Truong Hai Auto Joint Stock Company. This paper particularly focuses on presenting optimization problem to minimize the welding time of struck chassis.

*Từ khóa: welding techniques; CO2 welding; chassis; linear optimization; welding robot*

### Tóm tắt bằng tiếng Anh:

Nowadays, applications of modern technologies for automatizing manufacturing processes take priority in industrial development strategies of Vietnam, particularly at Truong Hai Auto Joint Stock Company. The manipulator welding robot is being chosen to increase the automation level and improve the product quality. This paper presents the result of a research on application of robotic welding for welding system of truck chassis in a car factory. This work takes part in a project in collaboration with Truong Hai Auto Joint Stock Company. This paper particularly focuses on presenting optimization problems to minimize the welding time of truck chassis. Key words: welding techniques; CO2 welding; chassis; linear optimization; welding robot.

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