

# **DESIGN OF ROTARY CAR PARKING SYSTEM BASED ON ARDUINO MEGA FOR PARKING LAND EFFICIENCY**

**Yoni Firmanto**

*Electrical Engineering Study Program, Faculty of Science & Technology  
University of Technology Yogyakarta  
Jl. Ringroad Utara Jombor Sleman Yogyakarta  
E-mail : [yonifirmanto28@gmail.com](mailto:yonifirmanto28@gmail.com)*

## **ABSTRACT**

*The growth in the number of vehicles has resulted in an increase in the need for parking spaces. The lack of parking space can cause several problems, one of which is illegal parking on the side of the road which can cause traffic congestion. This study aims to design a Rotary Car Parking system to maximize the use of limited parking space. The system is controlled using an Arduino Mega 2560 microcontroller, Stepper Motor, and Keypad. The proposed rotary car parking system design consists of 8 vehicle parking slots. The mechanical structure created allows vehicles to be arranged vertically with a rotating mechanism using gears and chains to raise and lower the parking slots. The test results prove that the system performance has a 100% success rate. This system is expected to be an alternative solution to overcome the lack of parking space availability.*

**Keywords:** *Rotary Car Parking, Arduino Mega, Stepper Motor*