

## **Abstract**

The age of preschoolers can be said to be a period of play, because it's always filled with play activities. One of the activities favored by preschoolers is cycling. Children who like to ride bicycle can be able to hit the obstacles in front of them because children who are still in the development stage do not know too much about how to operate an objects around them. An efforts to help children avoid by cycling accidents can be done by building a tool that can do automatic brakes. In this study an automatic braking system was built using fuzzy logic on a child's bicycle using ultrasonic sensors as a distance and speed input and servo motor as a brake lever puller. Based on the testing that has been done, the system using fuzzy logic can do better with a success rate of 80%.

**Keywords : Braking Systems, Fuzzy, Ultrasonic Sensor, Servo Motor**

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