

## ABSTRAK

Produksi massal sepeda motor telah menimbulkan banyak dampak bagi kehidupan manusia, baik dampak positif, maupun dampak negative. Dampak positif dari produksi massal sepeda motor dapat kita rasakan melalui revolusi pada kendaraan transportasi, dengan sepeda motor, manusia dapat menempuh perjalanan jauh maupun dekat dengan lebih efisien dari segi waktu. Namun dibalik dampak positif ini, terdapat dampak negative yang dapat merugikan manusia itu sendiri. Produksi massal sepeda motor telah membuat jumlah sepeda motor begitu banyak. Akibat over populasi sepeda motor, banyak pencemaran terjadi, baik pencemaran air, tanah hingga udara. Selain itu, banyaknya populasi sepeda motor membuat pengendalian dan pengawasan terhadap sepeda motor menjadi semakin sulit, yang mengakibatkan banyaknya serta maraknya kasus pencurian terhadap sepeda motor, masalah ini terjadi bukan hanya karena kurangnya pengawasan terhadap kendaraan, tetapi juga karena kurangnya kesadaran masyarakat perihal pentingnya system keamanan dan system kendali sepeda motor, yang membuat kendaraan begitu mudah untuk dicuri. Didasari pada masalah serta dampak yang terjadi akibat over populasi kendaraan bermotor dan juga banyaknya kasus pencurian sepeda motor, maka menulis membuat sebuah penelitian untuk selanjutnya dirancang dan diimplementasikan, dengan membuat sebuah system kendali sepeda motor jarak jauh berbasis android dan Arduino, dimana system kendali ini saling terintegrasi antara rangkaian elektronika alat pelacak dan juga sebuah aplikasi mobile bernama Treky, melalui system kendali ini, pemilik kendaraan dapat memantau posisi terkini dari kendaraan miliknya, serta mematikan dan menghidupkan kendaraan tanpa melakukan kontak fisik pada kendaraan bermotor miliknya.

**Kata Kunci :** Arduino Uno, Aplikasi Mobile, Integrasi, Pelacak, Sistem Keamanan.

## ABSTRACT

*The mass production of motorcycles has had many impacts on human life, both positive and negative impacts. We can feel the positive impact of mass production of motorcycles through the revolution in transportation vehicles, with motorcycles, humans can travel far and near more efficiently in terms of time. But behind this positive impact, there are negative impacts that can harm humans themselves. The mass production of motorcycles has made the number of motorcycles so large. Due to overpopulation of motorcycles, a lot of pollution occurs, both water, soil and air pollution. In addition, the large population of motorcycles makes controlling and supervising motorcycles increasingly difficult, resulting in the number and prevalence of cases of theft of motorcycles, this problem occurs not only because of a lack of supervision of vehicles, but also because of a lack of public awareness about the importance of a security system and the motorcycle control system, which makes the vehicle so easy to steal. Based on the problems and impacts that occur due to the over population of motorized vehicles and also the number of cases of motorcycle theft, the writing is to make a study to be further designed and implemented, by creating a remote control system for motorcycles based on Android and Arduino, where this control system is mutually exclusive. integrated between a series of electronic tracking devices and also a mobile application called Treky, through this control system, vehicle owners can monitor the current position of their vehicles, as well as turn off and turn on the vehicle without making physical contact with their motorized vehicle.*

**Keywords:** *Arduino Uno, Mobile Application, Integration, Tracker, Security System.*