MobiPark, the Mobility Parking Management System

Salmon, Jordan (School: Clancy Catholic College)

According to US and Australian regulations, between 2 and 4% of all parking spaces in retail establishments must be allocated for accessible parking. In Australia, the Mobility Parking Scheme was introduced to allow for the less abled to access spaces in car parks close to the entrance of a venue. The use of a mobility parking permit is a cause for illegal and unethical parking in these spaces. Many able people misuse these permits for their benefit. As a result, there are few mobility parking spaces for those in need. MobiPark, the Mobility Parking Management System, was developed to solve this issue by eliminating the need for a mobility parking permit. Using a microcontroller, camera board, Wi-Fi module and solar power, MobiPark achieves this by taking an image of a number plate on a car, converting it to useable text with artificial intelligence, comparing the text with a database of registered users, and passing the details and image of any offending cars to a relevant fining agency. Evaluation of the project has proven that the MobiPark solution effectively addresses a clear ethical issue on three different levels: the individual, the society, and the environment. If adopted by parking enforcement agencies, the MobiPark solution would have the desired impact of discouraging the misuse of mobility parking spaces. MobiPark is not only a solution to a national issue but also a movement for the equalization of access for the disabled around the globe.