

Vignan's Institute of Information Technology (A) :: Visakhapatnam

Department of Artificial Intelligence and Data Science

Title of the Project : Bin-Tech
Batch No : 12
Name of the Course : B.Tech. (AI&DS) Section: A
Academic Year : 2022-2023
Supervisor Name : Dr Anima Naik

ABSTRACT:

Bin-Tech is a smart dustbin designed to reduce the amount of plastic waste on streets and roads. The system utilizes machine learning to detect whether the waste is plastic or not. If the waste is plastic, a unique QR code is generated automatically. This QR code can be scanned by the person who disposed of the waste to collect rewards. The system only allows a single reward to be collected per QR code to prevent fraudulent activity. By incentivizing people to dispose of plastic waste in the bin, Bin-Tech aims to reduce the amount of plastic waste on the streets and roads. Bin-Tech also includes a web application that is connected to a database to help people easily scan for rewards. Overall, Bin-Tech is an innovative and sustainable solution that promotes responsible waste management practices while also providing rewards for individuals who actively participate in the system.

References:

1. Smart dustbin with IoT" by J. H. Kim, J. H. Park, and J. Y. Choi:
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2. "Smart waste management system with incentive scheme" by R. M. M. Rathnayake and D. K. D. N. Dassanayake.
(<https://www.sciencedirect.com/science/article/pii/S2405452618323541>)
3. "Innovative smart waste management system with incentive-based approach for plastic waste reduction" by M. C. M. R. Karunarathna, S. H. S. Fernando, and H. N.C.
(<https://www.sciencedirect.com/science/article/pii/S2405452620302005>)

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