**PROJECT APPROVAL SHEET**

A Project Title

(Automatic Shopping Cart with Advanced Billing System)

Is successfully completed by

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At

DEPARTMENT OF COMPUTER ENGINEERING

(Pimpri Chinchwad College of Engineering & Research)

SAVITRIBAI PHULE PUNE UNIVERSITY, PUNE

ACADEMIC YEAR 2018-2019

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Abstract

Previously standing in billing lines was more tedious than shopping. The long hours wait used to disinterest the shopping experience in malls. Due to this, there was a decline in the number of visiting customers. This tremendously decreased the turnover of the shopping malls. In today’s world shopping Experience is becoming convenient as the world has become digitalized. This is one of the conveniences that will be providing with new and easy shopping experience. To reduce the waiting time in a long queue for the payment of purchased items, we are developing an automatic shopping cart with advanced billing system. The system scans the product placed into the cart and accordingly generates the lump sum amount. This system consists of screen, camera, microcontroller, etc. Products will be captured by camera and will be processed using image processing algorithm SIFT. The user has to place the product into the cart, camera will capture the image of the product and this image will be compared with the images stored in the database using SIFT. Once the image is matched with the database image, the product price will be displayed on the screen. If user removes any product from the cart again image is captured by the camera and this image is compared with the database image. If it matched then respective amount of the product is subtracted from the total amount. And the final amount will be displayed.

Acknowledgments

*It gives us great pleasure in presenting the preliminary project report on ‘****Automatic Shopping Cart with Advanced Billing System’****.*

*I would like to take this opportunity to thank my internal guide* ***Prof. Jameer Kotwal*** *for giving me all the help and guidance I needed. I am really grateful to them for their kind support. Their valuable suggestions were very helpful.*

*I am also grateful to* ***Dr. Archana Chaugule****, Head of Computer Engineering Department,* Pimpri Chinchwad College of Engineering & Research *for her indispensable support, suggestions.*

*In the end our special thanks to* ***all staff members*** *for providing various resources such as laboratory with all needed software platforms, continuous Internet connection, for Our Project.*

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