

**Department of Electronics and Communication Engineering**

**Semester End Project Examination - JUNE 2021**

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| **Subject:** | PROJECT WORK-2 |  |  |
| **Subject code:** | 17ECPW02 | **Exam Type:** | UE-Exam |
| **Department:** | Electronics and communication Engineering | **Mode:** | Online [Zoom Meeting] |
| **Date of examination:** | Thursday, 6 June 2021 | **Group No.:** |  |
| **Timings:** |  | **Max Marks:** | 30 Marks [write-up] |
| **Internal Examiner –Prof. Sunil M P** | | | |
| **Name of the Student:** | Anish Kumar Singh | **USN:** | 17BTREC017 |
| **Project Title:** | IOT Based Smart Shopping Cart | | |
| **Batch No.:** | **Batch 2017-20/AY 2020-21** | **Project Batch No.:** | 17 |
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| **Instruction Note:** | You’re hereby instructed to submit the write-up ,Report, PPT, Video, Poster, Drafted/Published Paper- Internal Examiner –Prof. Sunil (Panel 2)  3-6-2021  <https://drive.google.com/drive/folders/1JhvU4-U_Hnd87dVTGmJkUb5Vxo0rpVPg?usp=sharing> | | |

### Write-up Work Sheet

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| Write/type here project abstract [Use max 150 – 300 words]  In this busy world, waiting in the long queue during shopping has become tedious process.  Customers who need to purchase different products in Walmart or supermarkets needs lots of time and patience in coordinating among them self for successful shopping. The customers have to drop every product which they wish to purchase into the shopping cart and then proceed to checkout at the billing counter. In this project, we depict reasonable and cost-effective Smart Shopping Cart utilizing IoT and Barcode Scanner. Aims to reduce and possibly eliminate the total waiting time of customers. The main objective of the project is to reduce and eliminate time in billing counter in super markets. To implement contactless shopping in concerns with people’s health and safety to limit physical contact in supermarkets. By designing a smart shopping cart which allows users to self checkout and increase productivity time. The smart shopping cart app, which utilizes bar code scanner as the sensing element of the subsystem that takes bar codes of different commodities as input to the system. Following each scan the data is being revised in the inventory. This app will keep updating the restocking process so that no product is off the shelf. The view cart button will keep customers informed about their billing amount to aid them to make further purchase decisions. The Recommend button in the app recommend products to the user based upon their present and past purchasing behavior. The drawbacks addressed in previous smart cart applications have been overcome in this application. The application developed for the IoT based smart shopping cart will eliminate the cost of deploying contemporary bar code scanners and the cost incurred for its maintenance and as well as the investment in customized central hardware. The synchronization latency, royalty fees, less accuracy occurred due to the SIFT algorithm has been improved with the implementation ORB algorithm which yields better results compared to the previous algorithm. The future scope includes adding more computation at the cloud end Implementation of such a system in retail shall bring down labour dependency, easy management at the owner’s end and in turn will improve the pre and post-shopping experience |
| Write/type here project Objectives:  The main objective of the project is to reduce and eliminate time in billing counter in super markets. To implement contactless shopping in concerns with people’s health and safety to limit physical contact in supermarkets. By designing an smart shopping cart which allows users to self checkout and increase productivity |
| Write/type here block diagram:  flowchart.PNG |
| Write/type here project limitation:   1. Facility to store data is upto a certain extent. 2. Difficulty in analysis of data and trends ,If implemented need to use the facility on the cloud and needs to analyse data further with advanced data analytics software or services. 3. Usage of this product is limited to only smart phone users. |
| Write/type here project application:  It can be widely used in Super Markets, Shopping Centers. |
| Describe your contribution in completing the project: [Use max 100 - 200 words]  I have Worked on application development, and java script and Google sheet as the Data Base for Our application. Me and My team mate rahul we have developed an application named by Smart Shopping Cart  Which is collaborated with barcode scanner and to store the data I have used google sheet to fetch the data  And by using app script I am retrieving data which is fetched by barcode scanner where ORB algorithm is used to do so. |