





	Visvesvaraya Technological University “JnanaSangama” Belagavi: 590018 Karnataka, India. Tele: 0831-2498225 ,2405454
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VTU Sponsored Student Project Proposal Format

01	Academic Year :	2021-2022	
02	Semester :	VIII	
03	Name of the College :	K.S SCHOOL OF ENGINEERING AND MANAGEMENT	
04	Branch:	COMPUTER SCIENCE AND ENGINEERING	
05	Project Title:	Automated Toll Management with Smart Light System (Swiftify)	
06	Project Discipline:	Automated Toll Collection and Power Conservation	
07	Principal	Name:	Dr. K.Rama Narasimha
		Contact No:	+91 9606055906
		Email id:	principal@kssem.edu.in
08	HOD	Name:	Dr. K Venkata Rao
		Contact No:	9343751362
		Email id:	hod.cse@kssem.edu.in
09	Project Guide	Name:	Mrs. R S Geethanjali
		Contact No:	8431492915
		Email id:	geethanjali.rs@kssem.edu.in
10	Project Co-Guide(If any)	Name:	-
		Contact No:	-
		Email id:	-
11	Project Committee coordinator (Identified by the college) :	Name:	Dr. PN Jyothi
		Contact No:	9663080471
		Email id:	jyothi.p.n@kssem.edu.in

12	Name of project group Members	
1.Group leader and Member		
Name:	Bhargav Swamy P.M	
USN No. :	1KG17CS015	
Contact No:	8296020419	
Email id: bhargav.swamy@gmail.com		
2.Member		
Name:	Bharadwaj B.S	
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Email id: bharadwajbs22@gmail.com		
3.Member		
Name:	Suyog L	
USN No. :	1KG16CS110	
Contact No:	9945543745	
Email id: suyogguddu26@gmail.com		
4.Member		
Name:	Sharath B.S	
USN No. :	1KG16CS094	
Contact No:	8197832079	
Email id: sharathsan99@gmail.com		
13	Scope / Objectives of the project:	<ol style="list-style-type: none"> 1. To automate toll tax collection on toll plaza. 2. To Save time and fuel being exhausted due to wait on toll plaza. 3. To save electricity on street lights.
14	Methodology of work: (Including diagram, flow chart and design calculations)	<ol style="list-style-type: none"> 1. Owner of the vehicle must register his/her car with Swiftify and deposit some minimum amount to receive a Smart Card. 2. Every time a vehicle approaches the toll booth, first the Infrared sensors will detect the presence of the vehicle which in turn activates the RFID circuit to read the RFID enabled Smart Card

3. Transaction will begin, Toll performs a check if the required toll fee is available in the Smart Card or not.
4. If yes, toll tax will be deducted directly or else the person needs to pay the toll tax manually with a fine.
5. Smart street lights are switched ON only if visible light is low [usually at night] and when there is vehicle movement in the road.

METHODOLOGY

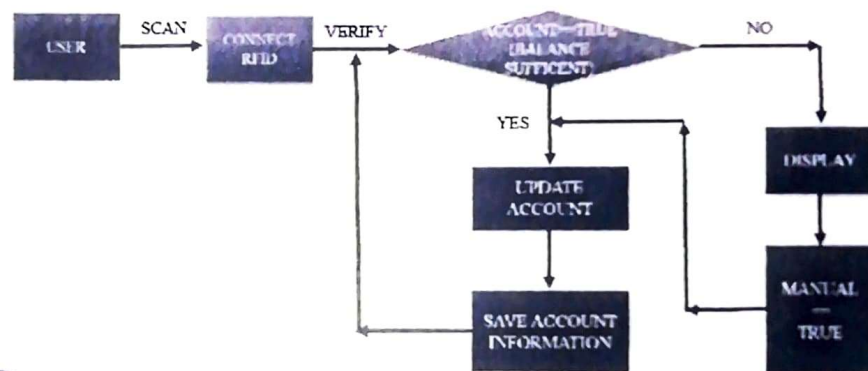


Fig 1: Architectural Block Diagram of Automated Toll Collection

METHODOLOGY (CONTD.)

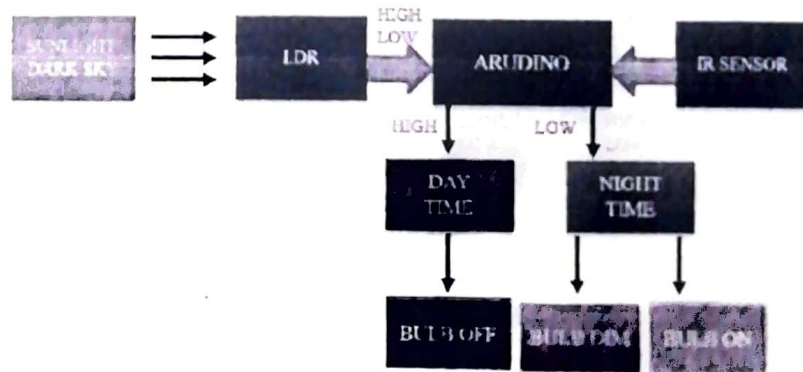
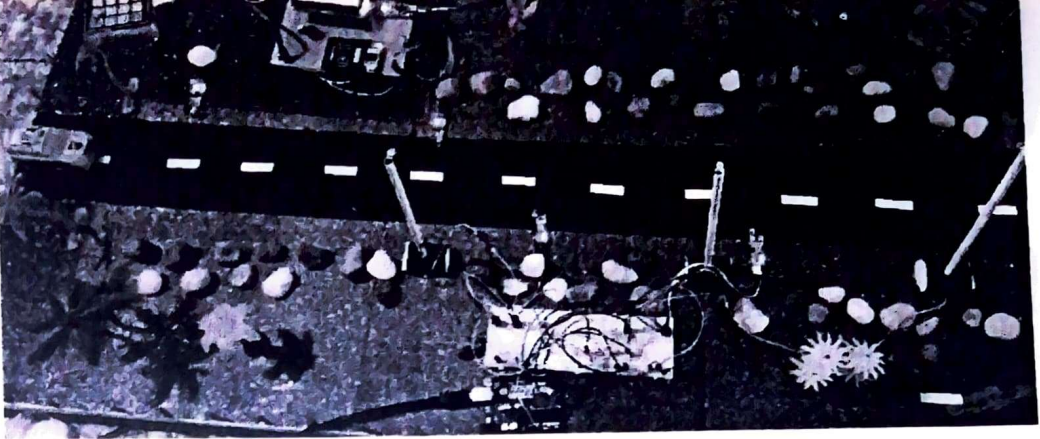
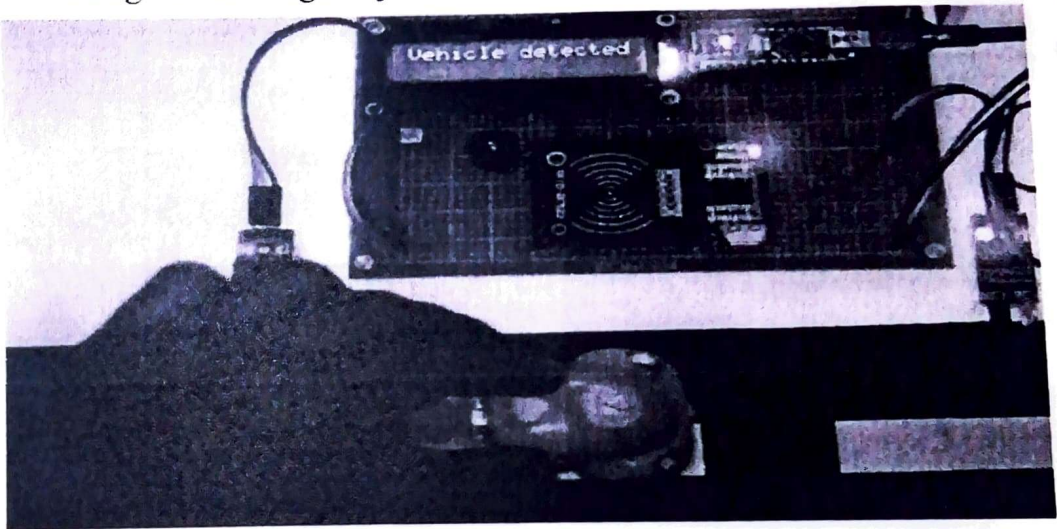


Fig 3 : Architectural Block Diagram Of Smart Light System

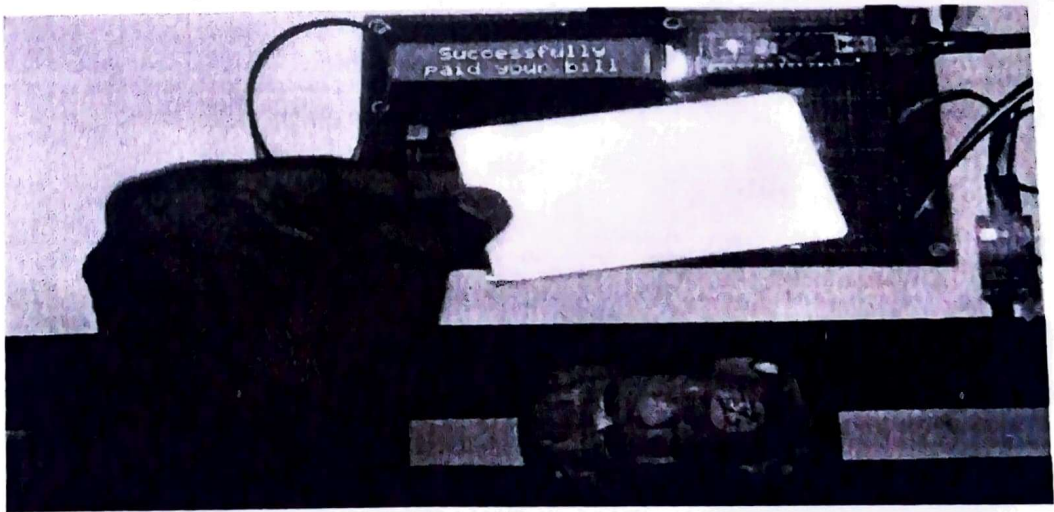
Expected
Outcome of
the project:



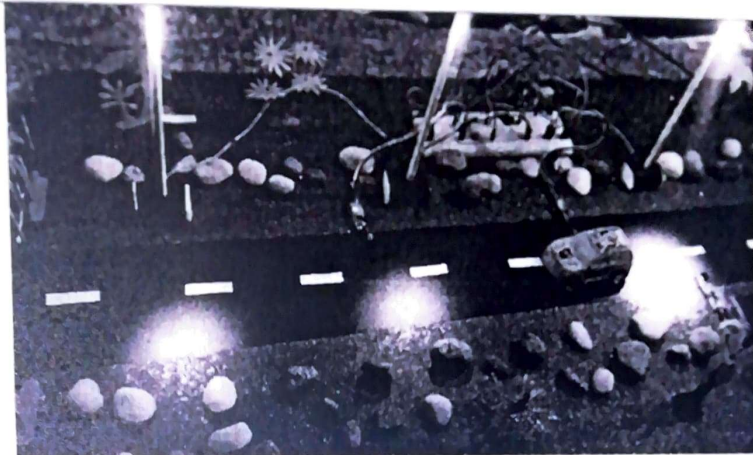
1. Design of the Highway



2. Detecting the vehicle at Toll Plaza



3. Successfully paid the Toll bill



4. Smart Street Light

16	Application of the project :	1) Reduction of time in Toll Plaza. 2) Reduction of electrical power usage of street lights in Highways.														
17	Budget details with Materials required:	<table border="1"> <thead> <tr> <th data-bbox="389 955 844 1018">Budget</th> <th data-bbox="844 955 1258 1018">Amount</th> </tr> </thead> <tbody> <tr> <td data-bbox="389 1018 844 1081">a) Materials / Consumables</td> <td data-bbox="844 1018 1258 1081">8,000.00</td> </tr> <tr> <td data-bbox="389 1081 844 1144">b) Labor</td> <td data-bbox="844 1081 1258 1144">1,000.00</td> </tr> <tr> <td data-bbox="389 1144 844 1207">c) Travel</td> <td data-bbox="844 1144 1258 1207">1,000.00</td> </tr> <tr> <td data-bbox="389 1207 844 1270">d) Report</td> <td data-bbox="844 1207 1258 1270">1,000.00</td> </tr> <tr> <td data-bbox="389 1270 844 1333">e) Miscellaneous</td> <td data-bbox="844 1270 1258 1333">1,000.00</td> </tr> <tr> <td data-bbox="389 1333 844 1396">Total</td> <td data-bbox="844 1333 1258 1396">12,000.00</td> </tr> </tbody> </table>	Budget	Amount	a) Materials / Consumables	8,000.00	b) Labor	1,000.00	c) Travel	1,000.00	d) Report	1,000.00	e) Miscellaneous	1,000.00	Total	12,000.00
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18	Date of commencement of the Project :	01-10-2021														
19	Probable date of completion of the project :	30-06-2022														
20	Duration of project work :	9 Months														
21	Pert chart for completion of the project in said duration as per planned activities:															

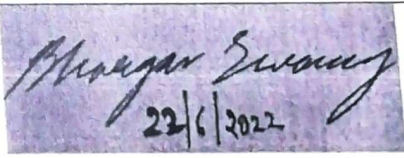
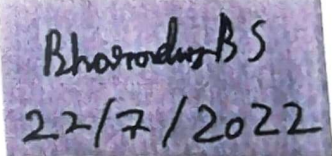
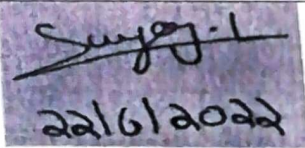
Sl.No	Activities Planned	1 Month/ Week	2 Month/ Week	3 Month/ Week	4 Month/ Week	5 Month/ Week	6 Month/ Week
01	Literature review	October 4 Weeks					
02	Planning/ Designing		November 4 Weeks				
03	Assembly/ Fabrication work			Dec/Jan 8 Weeks			
04	Final Testing				Feb/Mar/ April 12 Weeks		
05	Result & Calculation/ Conclusion					May 4 Weeks	
06	Preparation of Report & Submission						June 4 Weeks

DECLARATION BY THE STUDENTS

Project group members hereby declare that the details enclosed in the project report are true and correct to the best of our knowledge. We undertake to inform VTU, Belagavi, if there is any change in the project title, students name will be intimated immediately. In case the above information is found to be false or untrue or misleading, we are held liable and may be held liable for it.

We declare that the project group has to exhibit / demonstrate the project for evaluation at the Regional centre and for exhibition at VTU, Belagavi. If the project group fails to appear for the evaluation in Regional centre and for Exhibition in VTU Belagavi, the project amount will be returned back to VTU immediately.

We hereby, enclose the endorsement form to VTU, Belagavi.

SL.No	Name of the Student	Signature with date
01	Bhargav Swamy P.M	
02	Bharadwaj B.S	
03	Suyog L	
04	Sharath B.S	