Project Proposal

**Group No: Charlie**

**Section: B**

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**MILITARY INSTITUTE OF SCIENCE AND TECHNOLOGY**

Department of Computer Science and Engineering

Project Proposal of IDP

**1.Group No:** Charlie **Date**:07.09.20

**2.Section:** B **Session:** 2017-18

**3.Program:** CSE-18

**4.Tentative Title**: Vehicle Logbook Maintenance System

**5.Background and Present State of the Problem:**

All vehicles in military have their individual logbooks which is usually maintained by a Sergeant. Till now they are still being maintained in hard copies which have inevitable limitations. Some of them are following:

• Not properly updated.

• Conflicts between information in logbook and on ground.

• Preservation of its hardcopy.

• Maintenance of vehicles are not ensured.

• Lack of security as it can be easily manipulated.

**6.Objectives with Specific Aims and Possible Outcome:**

**Objectives:**

• Creating an Efficient System

• Easily Updateable

• Ensuring Proper Maintenance

• Ensuring Security

• Providing Authenticity

**Outcome**

• Always an updated Logbook.

• Easy trace of vehicle condition.

• Vehicle maintenance will be ensured

• Errors will be neutralized

• Handing taking of vehicles can easily be done among units using it

• Secured

• Quartermaster can access to any logbook of any vehicle at any time.

**7.Outline of Methodology/Experimental Design:**

On Ground Inspection: Extracting the BA number of any vehicle using our made scanner with our specific software installed in the laptop. Later the details about the vehicle can be seen. Maintenance of vehicle can be ensured in this way. Data Insertion: All the vehicles will have their individual account by their BA no, and it will be updated according by the supervision of the Workshop Office

**Steps.**

1. Problem arises.
2. QM Issues work order.
3. RI & I checks authority and issues Job Card.
4. Problem identified and issues Job Card.
5. Necessary Steps taken to solve the problem.
6. Workshop Officer checks back passes Job card.
7. RI & I updates logbook accordingly.
8. Send back to unit.

**Description**

1. Problem arises. When Any vehicle is facing any problem, it is selected for workshop inspection and repair.
2. QM Issues work order. After a vehicle is selected for inspection or repair, it is given a QM permission from the QM of the concerned unit and its work order is attached with the logbook. This process is automated and only the QM can allow the permission.
3. RI & I checks authority and issues Job Card. When a new vehicle arrive in the workshop , the RI&I is responsible for the primary authentication. They take the scanned image of the vehicle through a scanner and with the help of image processing they access the logbook of the concerned vehicle. If the same vehicle have the authority of the QM and the work order, then a job card for that vehicle is opened. Otherwise any vehicle without the permission is sent back.
4. Problem identified. The vehicle after getting authority from RI&I goes to the workshop for necessary checking and inspection. There the troops detailed for inspection inspect the problem and passes the information to RI&I for necessary classification.
5. Necessary Steps taken to solve the problem. After the problem if sorted out , necessary steps are taken to solve the problem e.g. oil change, parts exchange , annual inspection. When the repair of any part is done then the parts ID number which will be scanned by the workshop NCO will be placed into the digital job card. The update will be done by the Workshop NCO or JCO. While the vehicle is under maintenance the changes that will be made will be updated to the job card accordingly.
6. Workshop Officer checks back passes Job card. After all necessary maintenance is done from the workshop, the job card is forwarded to the workshop Officer. He can check back the changes and will put his remarks on the closing of the job card. And it is forwarded to RI&I.
7. RI & I updates logbook accordingly. After the job card is deposited back to the RI&I, they just copy and update the information to the logbook. After the completion of the maintenance of the logbook, the vehicle is discharged from the workshop and a completion message is sent to the concerned unit QM.
8. Send back to unit. After the vehicle is maintained, it is sent back to the unit.

**8.Covered domains**

|  |  |
| --- | --- |
| ☐Theoretical CS and Algorithms  ☒Networking  ☒Database and Data Mining  ☐Cloud Computing and Big data  ☐AI and Robotics | ☒Information Security  ☐Computer Vision  ☒Pattern Recognition  ☐Internet of Things (IoT)  ☐Human Computer Interactions (HCI) |

**9.Cost Estimate:**

|  |  |  |
| --- | --- | --- |
| Ser No | Items | Cost (Taka) |
| 1. | Cost of Equipment (ESP32-CAM + Arduino Uno + wires) | 4000 |
| 2. | Field works |  |
| 3. | Conveyance / Data Collection |  |
| 4. | Typing, Drafting, Binding and Paper etc. | 1000 |
| Total Amount |  | 5000 |

**10.Market Analysis:** Our project is going to be unique. So far nothing digitalized is used for vehicle logbook maintenance but ours one will be.

**Signature of the group members:**

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| --- | --- | --- | --- | --- |
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