NUMBER PLATE RECOGNITION

GROUP 10

October 24, 2017

0.1 TASK2:NUMBER PLATE RECOGNITION

Task Assigned On : 30/08/2017
Task Submitted On : 12/10/2017

Contents

Chapter 1

OBJECTIVES

•What are the team's achievements so far?
•What are the strength and weaknesses of the team members?
•What are the sources from which data was obtained?
•What are the concerns, issues and threats to be overcomed?

Chapter 2

ALGORITHM

Algorithm LicensePlateRecognition()

Input:Load an image of a vehicle.
Output:Recognising Licenseplate.

1. Start
2. Read a image which contains license plate.
3. Pre-Process the set algorithm
   (a) convert to grey scale
   (b) remove the noise
   (c) convert to equal-histogram
   (d) morph the image
   (e) threshold the image using THRESH-OTSU
4. Localize the license plate
   (a) Highlight the characters
   (b) Suppress the background
   (c) Threshold for image processing technique
5. Connected Component Analysis
   (a) Find the connected Pixel
   (b) Label and Extract Connected Components
6. Segmentation
7. Character Recognition
8. Stop

Chapter 3

ROLES ASSIGNED

1. Athira Soman
    - Facilitated Daily scrum meetings
    - Worked behind the program code to clean the input image.
2. Ierin Steephen : Team Leader
    - Assigned different modules to the team members after partitioning it into sub modules.
    - Worked behind the program code to reduce the colors of input image.
3. Geethu Devassykutty
    - Worked behind the code to crop the image set.
4. Greety Varghese
    - Worked behind the code to highlight the character.
5. Rinsha V.K
    - Worked behind the code to extract individual characters from the image.
6. Mariya Shaju Thomas
    - Worked behind the code to train the image dataset.

Chapter 4

STATUS REPORT

On 30/08/2017, the scrum master, Athira Soman divided the second task into various sub modules. Ierin, Greety and Athira were assigned the duty to work behind the python code.

On 07/09/2017, we got together to discuss the logic behind number plate recognition. The logic was made clear by each member. Further, the topic was more clearly divided. Athira took the part of pre-processing the image. Ierin took responsibility of localizing the license plate. Connected Component Analysis was initiated by Mariya Shaju. Segmentation was assigned to Rinsha and Greetty. Character Recognition was given to Geethu.

On 11/09/2017, we gathered again with the portions and ideas of the modules assigned to us. The pre processing stage converts the image into grey scale, removes the noise and such tasks were explained to each member.

Chapter 5

CONCLUSION

85 percentage sucessfully completed.