



K. N. Toosi University of Technology

*In the name of God*  
**Computer Vision**

Faculty of mechanical  
engineering

Instructor:  
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Project (Phase 1)

Due date: 01/04/01

In automatic driver assistance systems (ADAS), lots of information is obtained by processing the images from the cameras installed on the car. One crucial task is to find the color of the traffic light. In this project phase, you should collect a dataset from traffic lights (you can take the pictures yourself, find the existing datasets, gather them from the internet, etc.). The collected dataset must contain at least 20 images for each color (red, green, yellow). After collecting the dataset, you should write a code based on what you have learned so far, that can identify the traffic light's color. Note that in this phase, we assume that somehow, we've found the traffic light in the image, so you can crop the images if it is necessary. Evaluate the accuracy of your code for each color on the entire dataset.

Good Luck