

BIM472 IMAGE PROCESSING PROJECT

- Implement a MATLAB program that detects and identifies playing cards (standard 52-card deck) in a given image.
- The program should highlight card boundaries and indicate card type-number.
- The program should work in the following conditions:
 - ✓ Images of a single card on a variety of backgrounds
 - ✓ Images where the card(s) are not centered and are rotated
 - ✓ Images containing multiple non-overlapping cards
- You should evaluate your program on all the images provided with the project assignment and indicate the success rate using F-score.

$$\text{F-score} = 2 \cdot (\text{precision} \cdot \text{recall}) / (\text{precision} + \text{recall})$$

precision: the number of correct results divided by the number of all returned results.

recall: the number of correct results divided by the number of results that should have been returned.

- Write your report using the template provided in “BIM472_Template.docx”.
- Prepare a presentation for your project and present it to the class.
- Archive your report, presentation, source codes, etc. and submit via ceng.eskisehir.edu.tr before the deadline.
- Each group should make a single submission.
- Indicate IDs and names of group members within the archive file.
- Good luck.