

# Izmir Institute of Technology

## Electrical and Electronics Eng. Dep.

### EE 563 Artificial Intelligence (AI) in Practice

### Midterm Exam (30%)

Deadline: Tuesday 11/11/2025, until 23:59

**(50 pt) Q1)** Use a pose estimation library to detect body pose in a given image, and write a script to classify which arm is up.

**Input:** \$PATH-TO-INPUT-IMAGE, **Output:** "left", "right", "both" or "None"

Test your script with 3 input images provided: **pose-1.jpg, pose-2.jpg, and pose-3.jpg.**

#### **Deliverables:**

- 1) The link for your public github repository with your script, it will look like:  
<https://github.com/YOUR-USERNAME/ee-563-fall-2025>
- 2) Explain your algorithm with a few sentences in a "README.md" file in your repo.

**(50 pt) Q2)** Use a face detection library to detect the face's looking direction in a given image, and write a script to classify if the face is looking towards left, right, or straight.

**Input:** \$PATH-TO-INPUT-IMAGE, **Output:** "left", "right", or "straight"

Test your script with 3 input images provided: **face-1.png, face-2.png, and face-3.png.**

- 1) The link for your public github repository with your script, it will look like:  
<https://github.com/YOUR-USERNAME/ee-563-fall-2025>
- 2) Explain your algorithm with a few sentences in a "README.md" file in your repo.