1. Whay is computer vision?
2. What is an image transformation?
3. What does a geometric transformation involve?
4. What are homogeneous coordinates used for?
5. What happens when light hits an object’s surface?
6. What does Lambert's cosine law state?
7. What causes chromatic aberration in lenses?
8. What is digital image processing?
9. What are camera parameters used for in digital imaging?
10. What is a color space?
11. How do we see color?
12. What is histogram equalization used for?
13. What is contrast stretching in image processing?
14. What is thresholding in image processing?
15. What is the difference between linear and non-linear filtering?
16. What is a mean filter?
17. What is convolution in image processing?
18. What is correlation in image processing?
19. What is Gaussian smoothing?
20. What is the Fourier Transform used for in image processing?
21. What are feature detectors in image processing?
22. What is a feature descriptor?
23. What is feature matching?
24. What are the two types of edge detection?
25. What is the gradient in image processing?
26. What does the Sobel operator do?
27. What does the Prewitt operator detect?
28. What is the Laplacian of Gaussian used for?
29. What is the Canny Operator?
30. What is image segmentation?
31. What is the purpose of edge-based segmentation?
32. What is thresholding in image segmentation?
33. Why is image segmentation important for cancer detection?
34. What is semantic segmentation?
35. What is instance segmentation?
36. What are active contours?
37. What are key factors in facial feature analysis?
38. What is the Scale-Invariant Feature Transform (SIFT)?
39. What is split and merge segmentation?
40. What is the watershed transformation?
41. What is region splitting in image processing?
42. What does K-means clustering do?
43. What is feature-based alignment?
44. What is RANSAC used for?
45. What is image stitching?
46. What is parallax and why is it important to remove it in imaging?
47. What is the task of object detection?
48. What are Histogram of Oriented Gradients used for?
49. What is the task of object tracking?
50. Describe the steps in the Canny edge detection algorithm
51. Describe the steps in the image stitching
52. Describe the steps in the image Feature-Based Alignment
53. Describe the steps in K-means algorithm for image segmentation
54. Describe the process of face detection using Histogram of oriented gradients
55. Describe the process of detecting lines using the Hough transform