

Started on Monday, 18 January 2021, 2:12 PM

State Finished

Completed on Monday, 18 January 2021, 2:15 PM

Time taken 3 mins 35 secs

Grade 5.42 out of 10.00 (54%)

For CBM, the grade above is shown relative to the maximum for all correct at C=1. ?

Results for the whole quiz (4 questions)

Average CBM mark 0.54

Accuracy 54.2%

CBM bonus 0.0%

Accuracy + Bonus 54.2%

Break-down by certainty

C=3 No responses

C=2 No responses

C=1 Responses: 4. Accuracy: **54%**. (Optimal range 0% to 67%). You were **OK** using this certainty level.

Question 1

Incorrect

CBM mark 0.00

Weight 2.50

The criterion function in Harris Operator is given by:

- ☒ a. $\text{trace}(H) / \text{determinant}(H)$
- ☐ b. Value of λ_+
- ☐ c. $\lambda_1 * \lambda_2 / (\lambda_1 + \lambda_2)$
- ☐ d. Value of λ_-
- ☐ e. None of the others

✖

Certainty ? : ☒ C=1 (Unsure: <67%) ☐ C=2 (Mid: >67%) ☐ C=3 (Quite sure: >80%)

Your answer is incorrect.

The correct answer is:

$\lambda_1 * \lambda_2 / (\lambda_1 + \lambda_2)$

Question **2**

Correct

CBM mark 2.50

Weight 2.50

Which of the following criteria on the Eigen values of the H matrix indicates a highly unique region?

- ☐ a. Largest Lambda+
- ☒ b. Largest Lambda-
- ☐ c. Smallest Lambda-
- ☐ d. None of the others
- ☐ e. Smallest Lambda+



Certainty : ☒ C=1 (Unsure: <67%) ☐ C=2 (Mid: >67%) ☐ C=3 (Quite sure: >80%)

Your answer is correct.

The correct answer is:

Largest Lambda-

Question **3**

Correct

CBM mark 2.50

Weight 2.50

The small motion assumption in Harris Corner Detector is used for which of the following steps?

- ☐ a. Use of Eigen values (lambda) for change quantification
- ☐ b. None of the others
- ☐ c. Defining the Sum of Squared Differences (SSD) criterion
- ☒ d. First-order approximation in Taylor series expansion of $I(x+u, y+v)$
- ☐ e. Finding local maxima of thresholded f.



Certainty : ☒ C=1 (Unsure: <67%) ☐ C=2 (Mid: >67%) ☐ C=3 (Quite sure: >80%)

Your answer is correct.

The correct answer is:

First-order approximation in Taylor series expansion of $I(x+u, y+v)$

Question **4**

Partially correct

CBM mark 0.42

Weight 2.50

Which of the following are desirable invariance for a feature detector? (select **all** that are applicable)

☐ a. Invariant to Elastic Deformations

☒ b. Invariant to color of illumination



☒ c. Invariant to Object Swap



☐ d. Invariant to Scale

☒ e. Invariant to Rotation



Certainty  : ☒ C=1 (Unsure: <67%) ☐ C=2 (Mid: >67%) ☐ C=3 (Quite sure: >80%)

Your answer is partially correct.

You have correctly selected 2.

The correct answers are:

Invariant to Scale,

Invariant to Rotation,

Invariant to color of illumination

[◀ Lecture 4 Quiz \(ODD\) : Feature Detection](#)

Jump to...

[Lecture 5 Quiz \(ODD\): Projective Geometry ▶](#)