Due on 2019-10-09, 23:59 IST.

Mentor

1 point

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Unit 12 - Week 10

NPTEL » Digital Image Processing

Course outline How to access the portal Week 0 Assignment 0 Week 1 Week 2 Week 3 Week 4 Week 5 Week 6 Week 7 Week 8 Week 9 Week 10 Lecture 46 : Other Restoration Techniques - I Lecture 47 : Other Restoration Techniques - II Lecture 48 : Image Registration - I Lecture 49 : Image Registration - II Lecture 50 : Colour Image Processing : Colour Fundamentals Quiz: Week 10 Assignment Week 10 Feedback Form Week 11 Week 12 DOWNLOAD VIDEOS Text Transcription **Detail Solution**

The due date for submitting this assignment has passed. As per our records you have not submitted this assignment. Assume the degradation model for atmospheric turbulence is defined as

Week 10 Assignment 10

 $H(u,v) = e^{-K(u^2+v^2)^{5/6}}$ in frequency domain. If the value of K is increased, then atmospheric turbulence a) Decreases b) Remains constant Increases d) None of these (a)

(b) (c) (d) No, the answer is incorrect. Score: 0 Accepted Answers:

a) Sharpening Property b) Superposition Property c) Spike noise Property d) Restoration Property (a)

(b) O c) (d) No, the answer is incorrect. Score: 0 Accepted Answers:

a) Superposition b) Additivity c) Shift-invariance d) All of the above (a) (b)

properties?

(d) No, the answer is incorrect. Score: 0 Accepted Answers: 4) In the minimum error function given by the expression $\hat{F}(u,v) = \left[\frac{1}{H(u,v)} \cdot \frac{\left|H(u,v)\right|^2}{\left|H(u,v)\right|^2 + \frac{S_{\eta}(u,v)}{S_{f}(u,v)}}\right] G(u,v)$

Where,

a) $S_n(u,v)=1$ b) $S_n(u, v) = 0$ c) $S_n(u, v) = Constant$ (except 0, 1) d) None of the above (a) (b)

No, the answer is incorrect. Accepted Answers: same scene. a) Image restoration

b) Image Segmentation

a) Template Matching

c) Image registration d) None of the above (a) ○ b) O c) (d) No, the answer is incorrect. Score: 0

Accepted Answers:

(d)

5)

b) Mosaicing c) Image Fusion d) All of these O c) (d)

Accepted Answers:

a) Sum of squared difference. b) Cross co-relation c) Normalised cross-correlation d) None of these (a) (b)

(c)

(d)

Score: 0

○ a.

○ b.

○ c.

d.

Score: 0

(a)

(d (

O c)

(d)

Score: 0

(a)

(b)

O c)

(d)

Score: 0

Accepted Answers:

No, the answer is incorrect.

Accepted Answers:

b) Image Restoration c) Image Mosaicing d) Image Fusion

No, the answer is incorrect.

Accepted Answers:

Which of the following degradation model estimation method corresponds to blind convolution? a) By observation b) By experimentation c) Mathematical modelling d) All of these

c) Additivity d) All of the above No, the answer is incorrect.

The homogeneity and additivity properties together are called the

A non-linear position invariant system holds which of the following

The Wiener Filter is equal to the Inverse filter when

 $S_f(u,v)$ is Power Spectrum of Original Image,

 $S_n(u, v)$ is Noise Power Spectrum,

H(u,v) is degradation function

is the process of aligning two or more images of the

In which of the following application(s), image registration is used.

No, the answer is incorrect. Which of the following is the most suitable metric for match or mismatch measure in template matching?

No, the answer is incorrect. Accepted Answers: is the operation of taking a corrupt/noisy image and estimating the original image. a) Image Registration

10) A linear position variant system holds which of the following properties? a) Homogeneity b) Superposition

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