

Dr. Suman Saha

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -1 EXAMINATION- February 2020

B.Tech, VIIIth Semester

COURSE CODE: 18B1WCI840

MAX. MARKS: 15

COURSE NAME: Computer Vision

COURSE CREDITS: 03

MAX. TIME: 1Hr

Note: All questions are compulsory. Carrying of mobile phone during examinations will be treated as case of unfair means.

1. What is an edge in an image? Explain "Canny edge detector" include details of Hysteresis Thresholding.

MARKS [5]

2. Write Harris corner detection algorithm. Derive the interpretation of second moment matrix.

MARKS [5]

3. Consider the following image:

I

0	0	1	4	9
1	0	5	7	11
1	4	9	12	16
3	8	11	14	16
8	10	15	16	20

d/dx

-1	0	1
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d/dy

-1
0
1

Compute the Harris matrix M and cornerness score $C = \det(M) - k \text{trace}(M)^2$ for $k = 0.04$.

MARKS [5]