



Discipline of
Computer Science & Engineering

QUIZ- Total marks(10)

Course: Image Processing

Date: 19 AUG 2023

1. Answer only in pen and paper then click photo to convert into pdf and upload.
 2. Write your name and roll number also.
 3. Please show all computations. No marks for direct answers.
 4. Google classroom is the only submission portal. E-mail (or any other method) submission will NOT be accepted.
 5. Penalties for late assignment submission — 10% of the total marks awarded will be deducted for every 10 minutes.
 6. Keep camera on and mic unmute.
-

1. (2 points) We received footage from CCTV installed in the park. In the evaluation of the video, we found people strolling in the park. Now, we want to detect the movement of the people based on the motion. What kind of motion do we expect in the CCTV footage? Comment.
2. (2 points) Convert from RGB to YUV space and YIQ space if $R=125$, $G=60$, and $B=90$.
3. (2 points) Let $R = \begin{bmatrix} 0 & -1 & 0 \\ 1 & 0 & 0 \\ 0 & 0 & 1 \end{bmatrix}$, $T = [1, 1.5, 2]$. Convert the 3D displacement of a rigid object is x is $[90, 121, 45]$.
4. (2 points) The camcorder is placed on the railway track for 3D modelling. However, you realise the track lanes appear to originate from infinity. How will you model this?
5. (2 points) You have a sampled and filtered signal but you notice aliasing in the signal. Can you comment on the cause of it?