



School of Electrical Engineering and Computer Science
Department of Electrical Engineering

CS-477

Computer Vision (UG Elective)
Assignment 1

Fall-2024

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Thursday, Oct 3, 2024

Max. Points: 10
Evaluation: Thu Oct 10, 2024
(Last hour of lab)

Q: You are required to implement image gradient using Python/OpenCV as a spatial filtering method. The following rules are to be observed:

- Finding image gradients is no novel thing, and there are predefined functions available in OpenCV for the purpose. You are not allowed to use any of gradient related predefined function.
 - You also need to apply Gaussian smoothing on the image before finding gradients. Set appropriate sigma for the purpose.
 - Implement this as a function. So the function should accept an image as input and output two new images: one gradient magnitude and the other containing gradient direction.
 - Assignment will be evaluated in lab (1130-1230 Hrs), so no submission is required.
 - Copied/matching codes will be zero.
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