Fundamentals of Computer Vision
Fall – 2016 (Section B)
Quiz # 3

Q1. Give algorithm for Modified Hough Transform using gradient to find lines.

1. Initialize H[d, θ]=0

2. For each edge point (x,y)
θ = gradient orientation at (x,y)
d = x cos θ + y sin θ
H(θ, d) = H(θ, d) + 1
end

3. Find the value(s) of (d, θ) where H[d, θ] is maximum

4. The detected line in the image is given by
d=x cos θ+y sin θ (points satisfying the equation for maximum d and θ will be marked)