#include"stdafx.h"

#include<conio.h>

#include <iostream>

#include <opencv2/core/core.hpp>

#include <opencv2/highgui/highgui.hpp>

using namespace std;

using namespace cv;

double anal(Mat im, int r, int c)

{double dx=0, dy=0, sum;

for (int i = r - 1; i <= r + 1; i++)

dx += double(im.at<uchar>(i, c + 1) - im.at<uchar>(i, c - 1));

for (int j = c - 1; j <= c + 1; j++)

dy +=double(im.at<uchar>(r+1,j) - im.at<uchar>(r-1,j));

sum = sqrt((dx \*dx) + (dy \* dy));

return sum;

}

int main()

{

Mat image = imread("C:\\Users\\Sony\\Desktop\\IP\\a.jpg", 0); Mat img2(image.rows, image.cols, CV\_8UC1);

for (int i = 1; i < image.rows - 1;i++)

for (int j = 1; j < image.cols - 1; j++)

img2.at<uchar>(i, j) = anal(image, i, j);

namedWindow("My Output", WINDOW\_AUTOSIZE);

imshow("My Output", img2);

waitKey(0);

return(0);

}