package test;

import org.bytedeco.javacpp.opencv\_core;

import org.bytedeco.javacv.FrameGrabber.Exception;

import static org.bytedeco.javacpp.opencv\_highgui.\*;

import static org.bytedeco.javacpp.opencv\_core.\*;

import static org.bytedeco.javacpp.opencv\_imgproc.\*;

import static org.bytedeco.javacpp.opencv\_imgcodecs.\*;

public class AffineTest {

public static String IMAGE\_PATH = "E:\\ReceivedFiles\\images\\images\\neg\_4.png";

public static void main(String[] args) throws Exception {

AffineTest instance = new AffineTest();

instance.runTest();

cvWaitKey();

}

public void runTest() throws Exception {

opencv\_core.IplImage src = cvLoadImage(IMAGE\_PATH);

IplImage GrayImage = cvCreateImage(cvGetSize(src), IPL\_DEPTH\_8U, 1);

cvCvtColor(src, GrayImage, CV\_BGR2GRAY);

cvThreshold(GrayImage, GrayImage, 127, 255, CV\_THRESH\_BINARY\_INV);

cvShowImage("Orginal Image", src);

opencv\_core.IplImage dst = cvCloneImage(src);

dst.origin(src.origin());

cvSet(dst, CvScalar.WHITE);

CvMat matrix = cvCreateMat(2, 3, CV\_32FC1);

int angleDegrees = -5;

double angleInRadian = Math.toRadians(angleDegrees);

matrix.put(0, 0, Math.cos(angleInRadian));

matrix.put(0, 1, Math.sin(angleInRadian));

matrix.put(0, 2, 0);

matrix.put(1, 0, -Math.sin(angleInRadian));

matrix.put(1, 1, Math.cos(angleInRadian));

matrix.put(1, 2, 0);

cvWarpAffine(src, dst, matrix, 1, CvScalar.WHITE);

cvShowImage("Affine Transform Rotation Angle - " + angleDegrees, dst);

cvReleaseImage(src);

cvReleaseImage(dst);

cvReleaseMat(matrix);

}

}