

National University of Science and Technology
School of Electrical Engineering and Computer Science

Department of Software Engineering

EE433: Digital Image Processing

Class: BESE-5

Lab 7: Text Characters Segmentation

Date: 31st October, 2017

Time: 2pm-5pm

Instructor: Dr. Muhammad Moazam Fraz

Lab Engineer: Ms Iram Tariq Bhatti

Course Learning Outcomes (CLOs)			
Upon completion of the course, students should demonstrate the ability to:		PLO Mapping	BT Level*
CLO 1	Understanding the fundamentals and basic concepts of image processing	PLO 1	C2
CLO 2	Analyze images using mathematical transformations and operations	PLO 2	C4
CLO 3	Develop solutions by using modern tools to solve practical problems.	PLO 5	C5
	* BT= Bloom's Taxonomy, C=Cognitive domain, P=Psychomotor domain, A= Affective domain		

Learning Outcome

CLO 2: Analyze images using mathematical transformations and operations.

Goal

The goal of this lab is to learn how to use connected component labelling to extract/ segment text characters.

Tools/Software Requirement

MATLAB 201x / Python 2 or 3 with associated libraries

Task

We are practicing Digital Image Processing Techniques in the LAB

Load the above image (available on LMS) and extract the characters from it and write each character in a separate image file.

Deliverables

[Perform above mentioned practice tasks in Matlab or Python.](#)

Just make a new folder named as DIP-Lab7 in existing private repository and then add the teacher as a collaborator. All the code must be in runnable format in order to get the credit.

1. A file with commented source code representing the work accomplished for this lab.
2. All files should contain author in the comments at the top of the file.