Ex. No: 9 Fuzzy Logic-Image Processing
Date:

Procedure for fuzzy Logic edge detection.

Step 1: Jet up the environment.

1) Open MATLAB: Ensur you have access to MATLAB with the image processing toolbox and fuzzy Logic toolbox installed.

Step 2: Import and Convert image to Grayscale

- 1) Read the RGB Image.
- 2) Connect to Grayscale.

Steps: Convert Image to double - precision data

1) Convert to double.

Step4: Obtain image gladient.

- 1) Define Gradient filters.
- 2) Calculate Gradients
- 3) Plot image quadients.

Step 5: Define fuzzy inference system (F18) for edge detection.

- 1) Create FIS
- 2) Add Inputs

3) Define Membership function for Inputs

4) Add output harries and the
5) Define Membership functions for autput
8) Plot Membership functions.
Steps: Specify Fls rules
1) Add tules ifor F18 11
Stépt : l'Évaluate Fls
1) Évaluate edge detection.
Step 8: Plot resigles.
1) Plot Oxiginal Gray scale Image.
2) Plot detected edges.
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and the olphis verified.
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