

Experiment No: 9 Fuzzy Logic - Imager Processing
217 (1) 20 R ABA 1
Aim: Evaluate pro
The aim of implementing fuzzy logic for
The aim of implementing fuzzy logic for edge detection is to enhance the Robustness
and accusacy, of edge detection in images by
handling uncertainities in pixel intensity
teansactions.
Tugue
Procedure:
Proceduse for Fuzzy Logic Edge Defection
1. Set up the Envisonment
1. Open MATLAB: Ensule you have access to
MATLAB WITH the Emage processing toolbox and
fuzzy logic toolbox installed.
step2: Impost and convert image to Grayscale
1. Read the RGB Range
2. convert to Grayscall Step3: convert image to double-precision data
1. convert to double
Step 4: Obtain îmage gradient
1 200° 2 Geodient Piltels:
1. Define Gradient filtels: 2. Calculate orladients
2. plot image application
steps: Define fuzzy inference system (FIS) por edge
det ection
1. cleate FIS
2. Add Enputs
3. Define Membership function for inputs
4 1 1 04 hours
and membership function los outputs
5. Défine Membership function for outputs 6. Post Membership function
o ixol interior

step b: specify FIS Rules 1. Add Rules for FIS Step7: Evaluate FIS 1. Evaluate edge detection Steps: Plot results. 1. Plot Oxiginal Grayscale Image: 2. Plot detected edges. output Proceeding for turney logic tage petrition Insumositual and que to open MATLER: Franks you have access is MATLER with the image peccessing tookbox and Juzzy legic teelbex Erstalled Impost and convert mage to Graysale Read the Ross Range convert image to double precision data elduah of towned sobtain image gradient ochient : Poline fuzzy Enference system (FIS) is ships bha. eliga Page Wellson J. Jakes toping ment The plogram was successfully executed and the OIP 28 verified.