

CS203 PROJECT

1. IMAGE PROCESSING (our priority choice)

Image filters - Image smoothening, brightness increase/decrease, color filters, color inversion, black & white, etc(if time permits we can implement more).

Implementation - Language used Icarus verilog for image processing and for reading the images TEXTIO VHDL package can be used after image is converted to binary/hex text format using Matlab or C.

We access single pixel at a time and change the pixel RGB values for attaining different color filters.

Processed image output is then written to a bitmap(.bmp) image output.

Advantage - Quality of Image can be improved by increasing brightness and applying color contrast to balance the exposure of images.

2. SNAKE GAME -

Objective - To implement snake game in Icarus verilog.

Implementation - Language used Icarus verilog.

- Step 1 - Using keyboard inputs to let user decide the direction of motion of snake.
- Step 2 - Display snake motion while it is controlled by the user.
- Step 3 - Featuring fruit and collisions handling.
- Step 4 - Game design and implementation of all the functions developed for the game.