

# Practical Work 5: Image Processing and Graphic Design

## Objectives

By the end of this practical work, students will be able to:

- Edit and enhance images using GIMP
- Create vector graphics using Inkscape
- Understand the difference between raster and vector images
- Compare open-source tools with proprietary software
- Produce a simple graphic design project

## 1. Install GIMP

### Steps

1. Go to the official website:  
<https://www.gimp.org>
2. Click on Download
3. Choose: Download GIMP directly (Windows installer)
4. After download:
  - Open the .exe file
  - Click Install
  - Wait until installation finishes
5. Launch GIMP from:
  - Desktop shortcut
  - Or Start Menu

## Practical Work Steps

- **Step 1: Open Image**  
Launch GIMP → File → Open
- **Step 2: Crop Image**  
Use the Crop Tool, select area, press Enter
- **Step 3: Resize Image**  
Image → Scale Image (e.g., 800×600 px)
- **Step 4: Adjust Brightness and Contrast**  
Colors → Brightness-Contrast
- **Step 5: Add Text**  
Use Text Tool and customize
- **Step 6: Export Final Image**  
File → Export As (PNG/JPG)

## 2. Install Inkscape

### Steps

1. Go to the official website:  
<https://inkscape.org>
2. Click on Download
3. Choose Windows → 64-bit installer
4. After download:
  - Open the file
  - Click Next → Install
5. Launch from Desktop or Start Menu

## Practical Work Steps

- **Step 1: Create a New Document**  
File → New
- **Step 2: Draw Basic Shapes**  
Rectangle Tool, Ellipse Tool
- **Step 3: Apply Colors and Gradients**  
Fill and Stroke (Shift + Ctrl + F)
- **Step 4: Add Text**  
Use Text Tool (T)

- **Step 5: Arrange and Align Elements**  
Object → Align and Distribute
- **Step 6: Save and Export**  
Save as SVG, export as PNG

## **Part 3: Comparison Study**

- Which one is easier to use?
- Which one offers more features?
- What are the advantages of open-source software?
- When would you prefer proprietary tools?

## **Part 4: Project Assignment**

### **Project Title**

Mini Graphic Design Project

### **Project Description**

Students must create one of the following:

- A poster
- A logo
- A social media banner
- A greeting card

### **Requirements**

- Use GIMP for image editing
- Use Inkscape for graphic design
- Combine both tools if needed
- The design must include:
  - Text
  - Shapes or images
  - Colors and layout

## Deliverables

- Final image (PNG or JPG)
- Source files (XCF, SVG)
- Short report (1 page):
  - Project idea
  - Tools used
  - Steps followed