

# **“UNIVERSIDAD NACIONAL DE SAN AGUSTIN”**

**FACULTAD:**  
**INGENIERÍA DE PRODUCCIÓN Y SERVICIOS**

**ESCUELA PROFESIONAL:**  
**“CIENCIA DE LA COMPUTACIÓN”**



**TEMA:**

Filtros

**CURSO:**

Tópicos en Computación Gráfica

**DOCENTE:**

Yessenia Deysi Yari Ramos

**ESTUDIANTE:**

Ancel Alain Fernando Cruz Chaiña

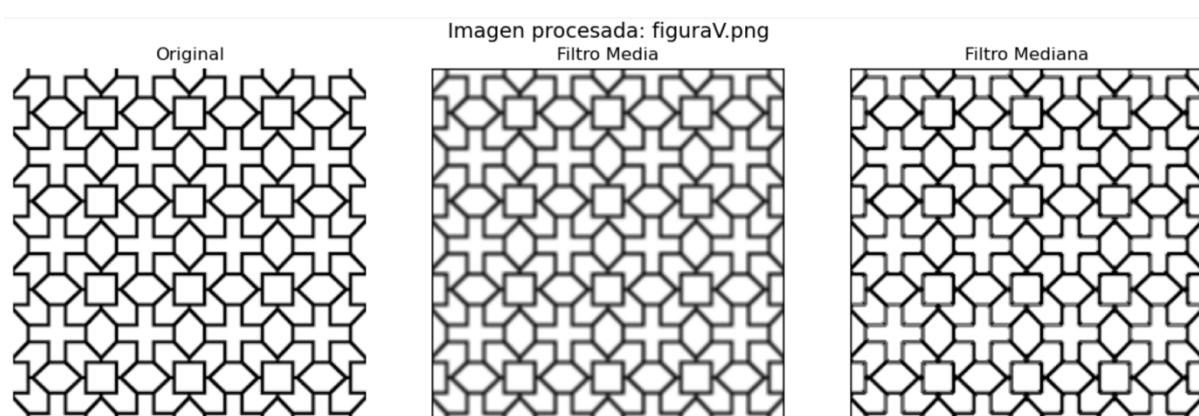
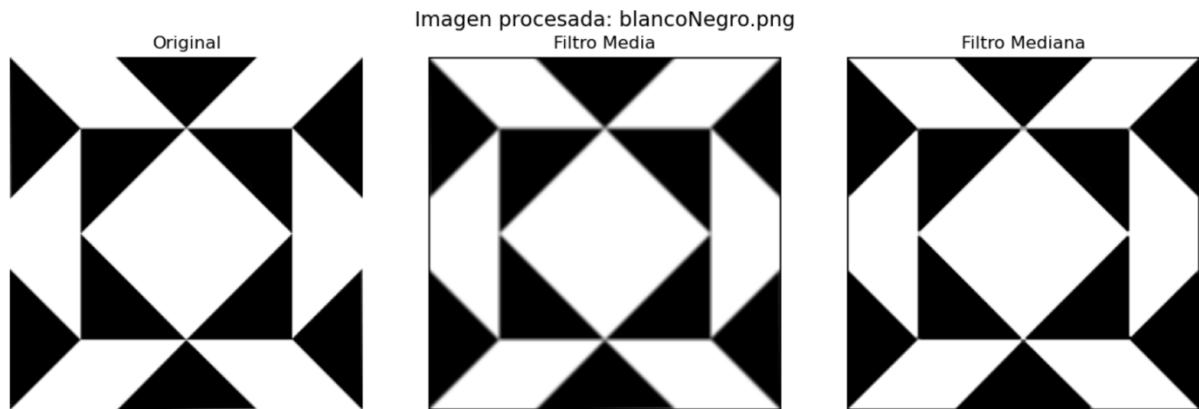
**AREQUIPA-PERÚ**

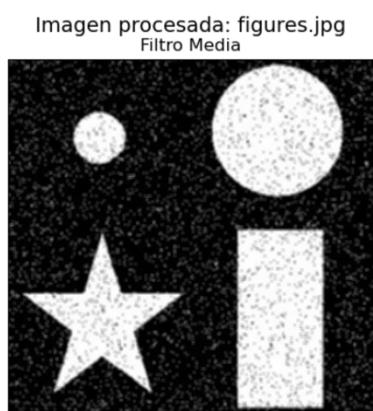
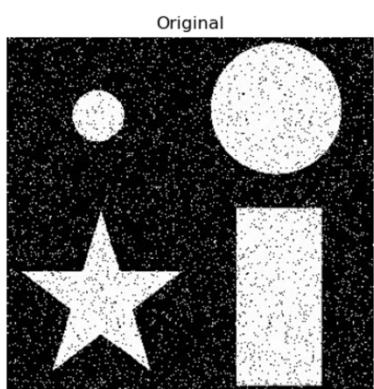
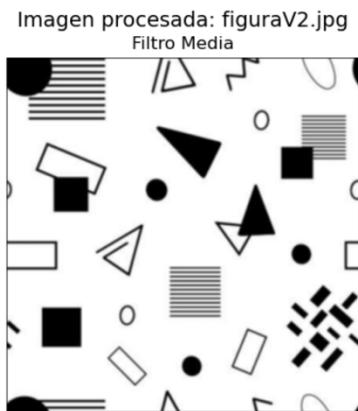
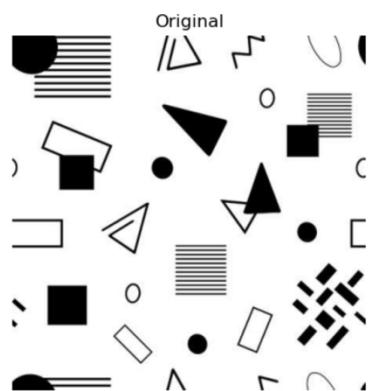
## IMPLEMENTACIONES:

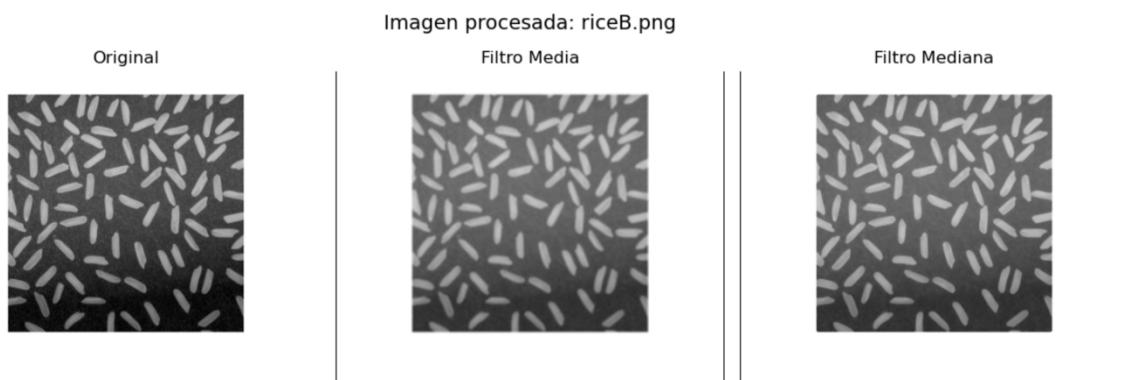
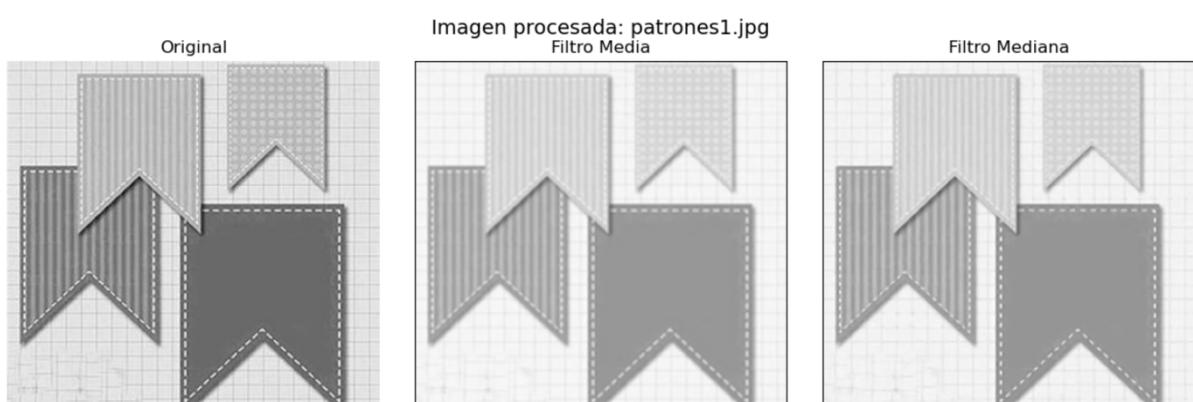
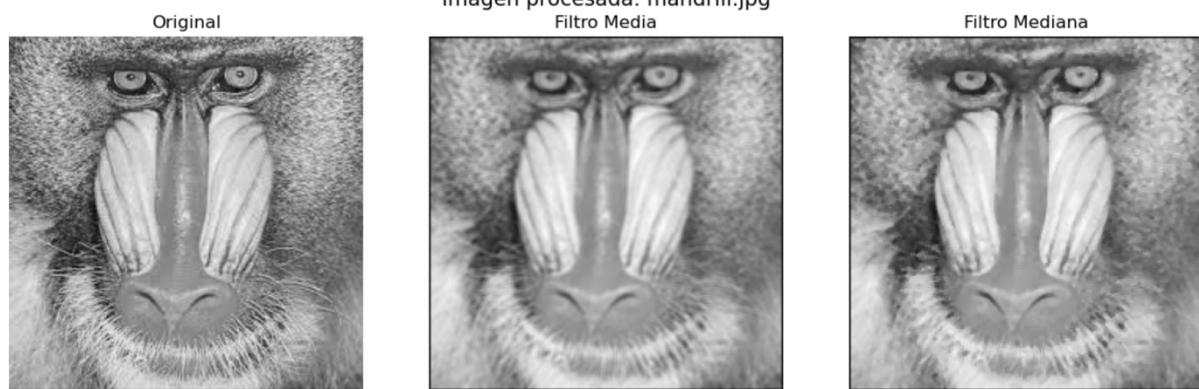
1. Implementar el algoritmo de media y mediana con diferentes máscaras:  $3 \times 3$ ,  $5 \times 5$ ,  $7 \times 7$ ,  $9 \times 9$  y  $11 \times 11$ .
2. Implementar el algoritmo de Roberts, Sobel, Prewitt y Laplace (usar solo una máscara) .

Para las pruebas, usar las imágenes que se encuentran en classroom.:

### Algoritmo de la Media y Mediana (3x3):







### Algoritmo de la Media y Mediana (11x11):

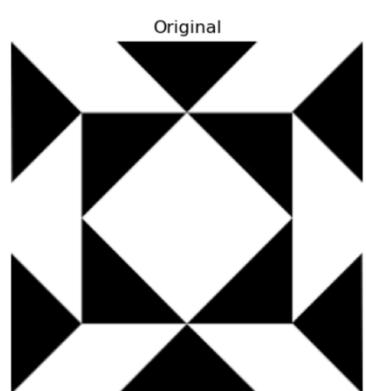


Imagen procesada: blancoNegro.png  
Filtro Media

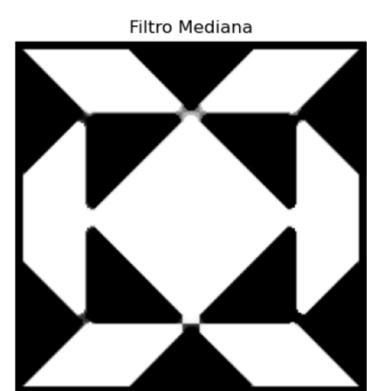
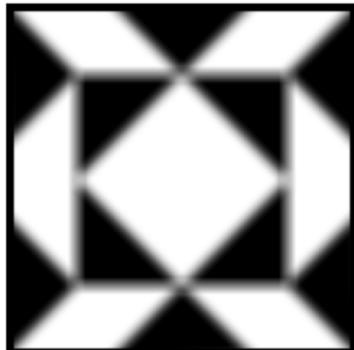


Imagen procesada: cameraman.jpg  
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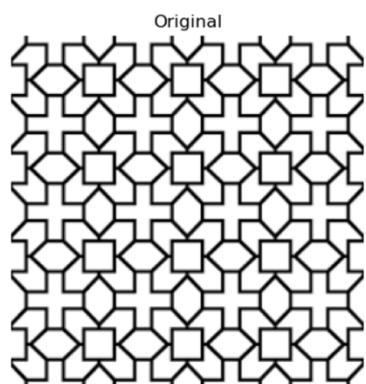


Imagen procesada: figuraV.png  
Filtro Media

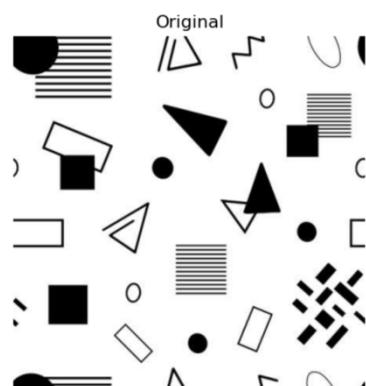
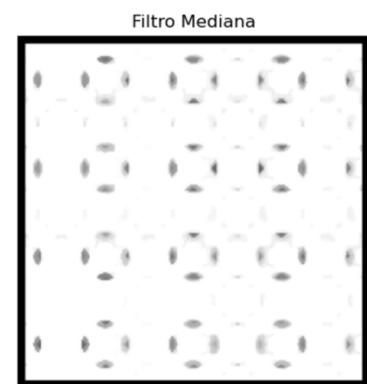
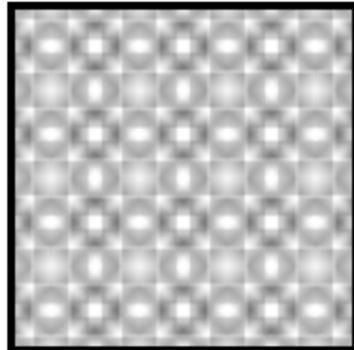
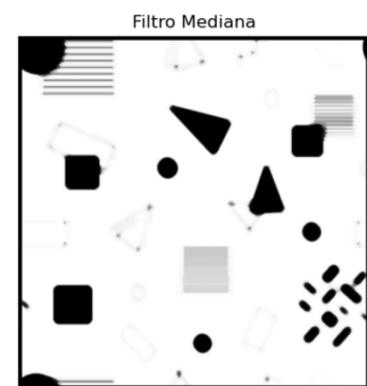
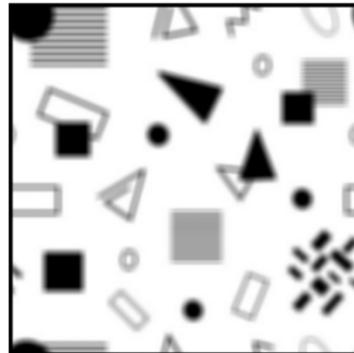
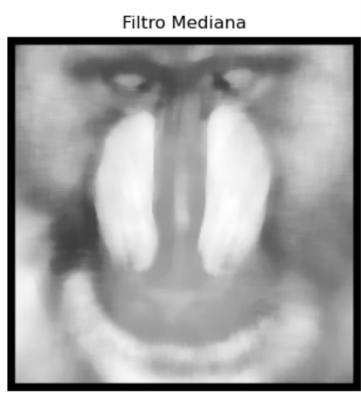
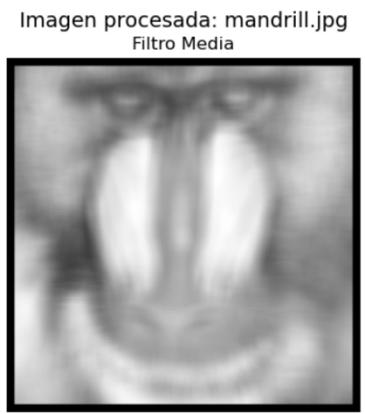
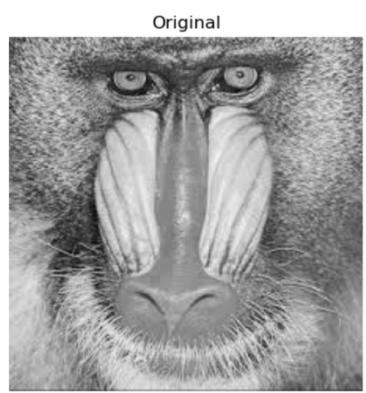
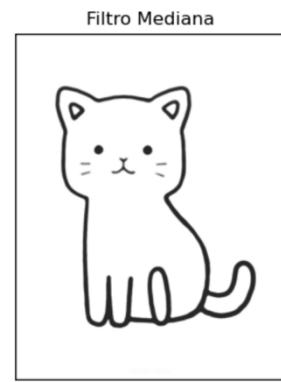
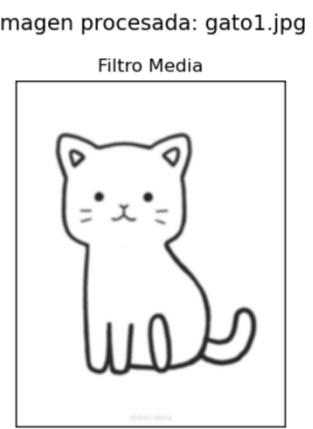
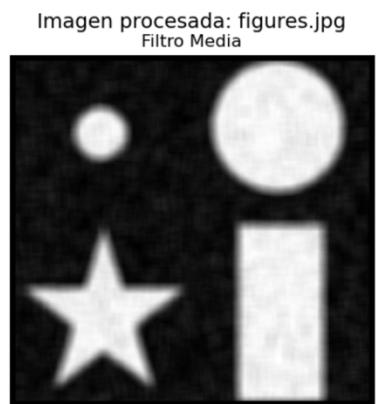
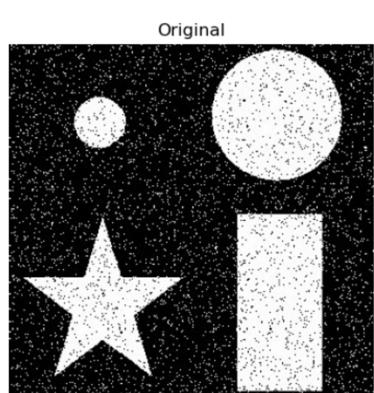
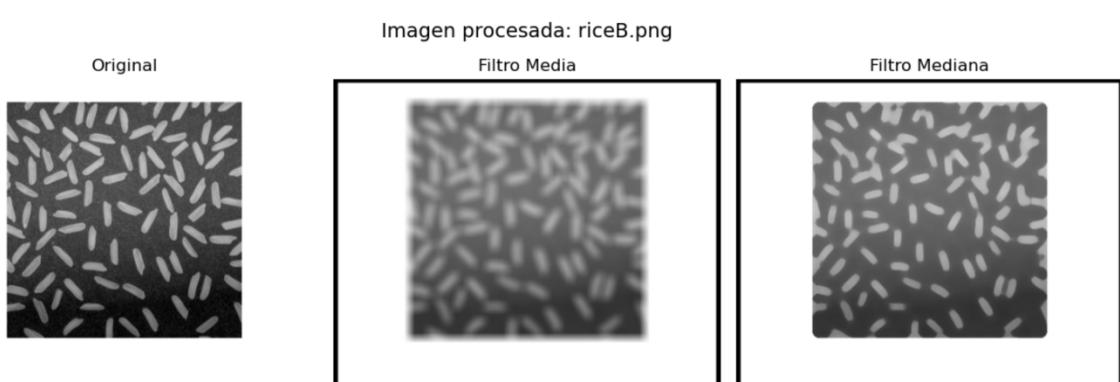
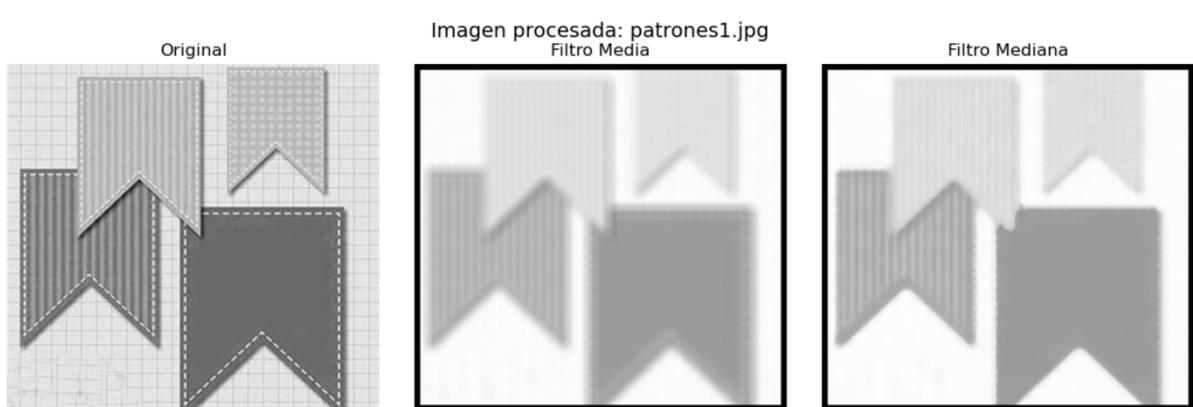


Imagen procesada: figuraV2.jpg  
Filtro Media







## RESULTADOS OBTENIDOS USANDO FILTRO SOBEL EN Y:

Imagen: blancoNegro.png

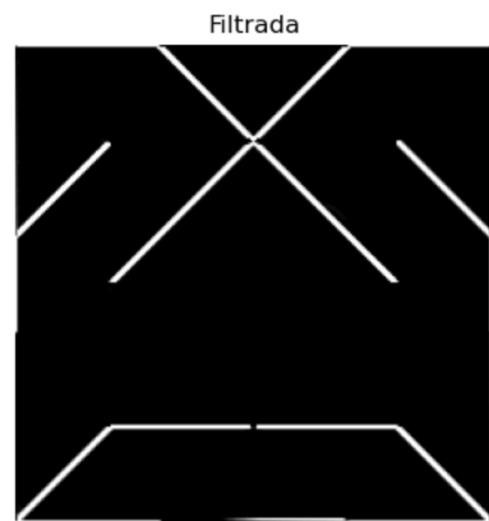
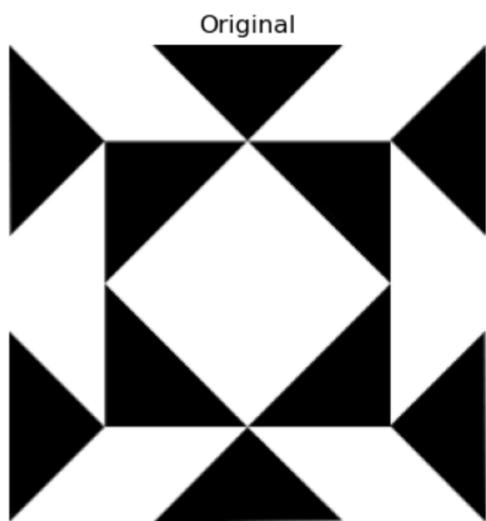


Imagen: cameraman.jpg



Imagen: figuraV.png

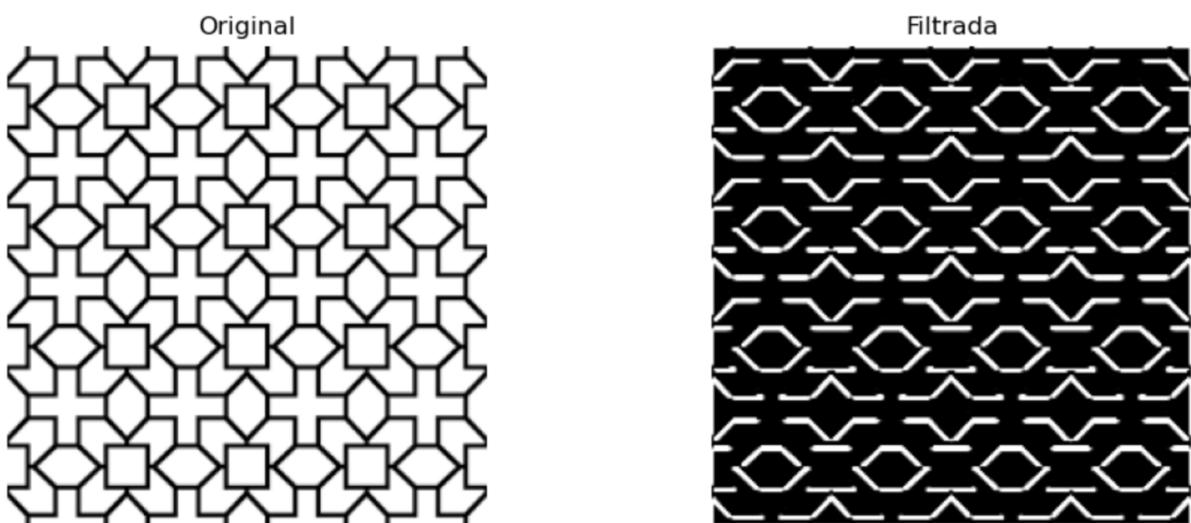


Imagen: figuraV2.jpg

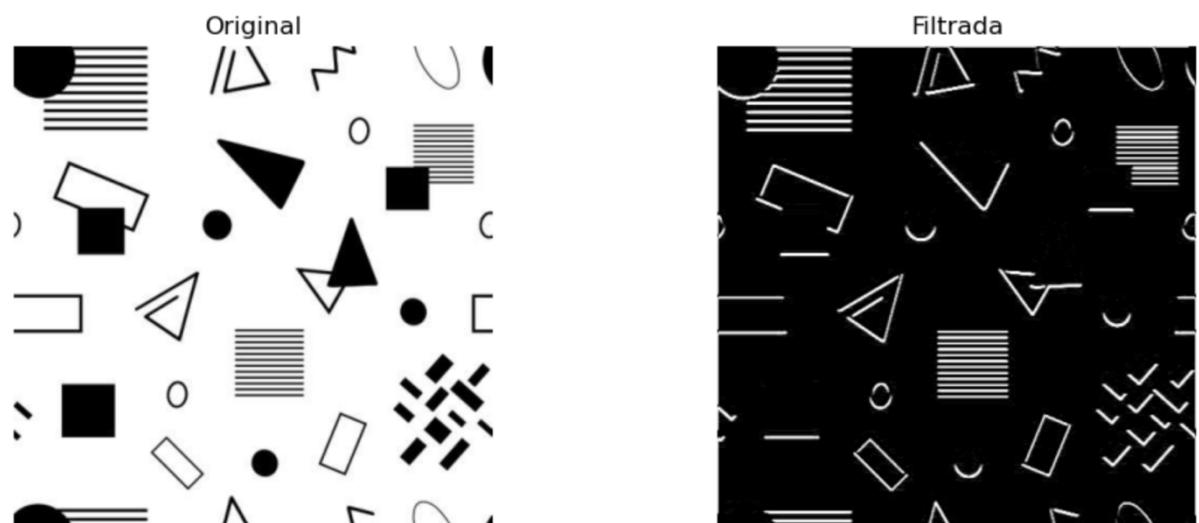


Imagen: figures.jpg

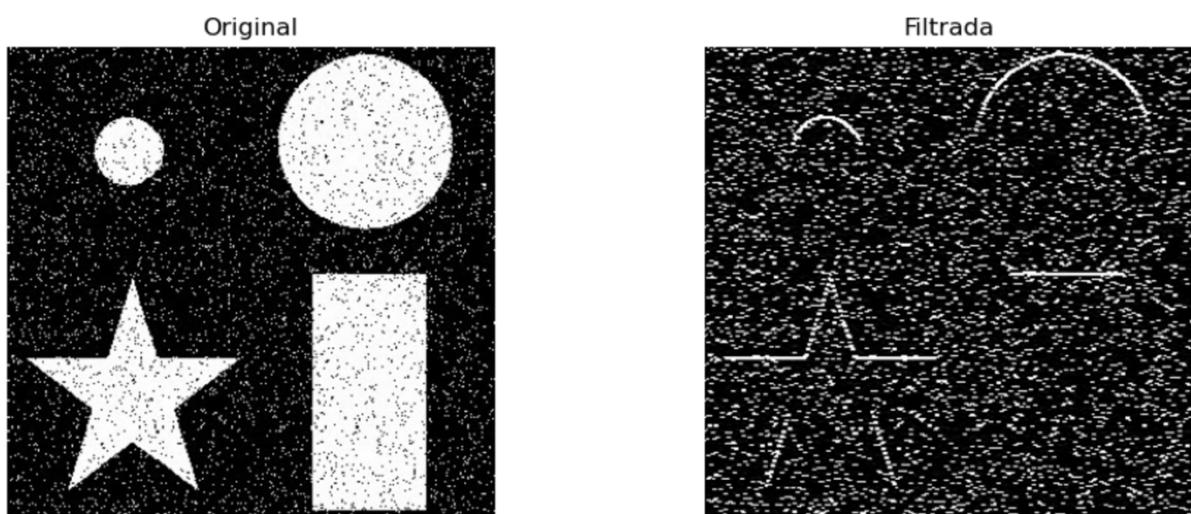


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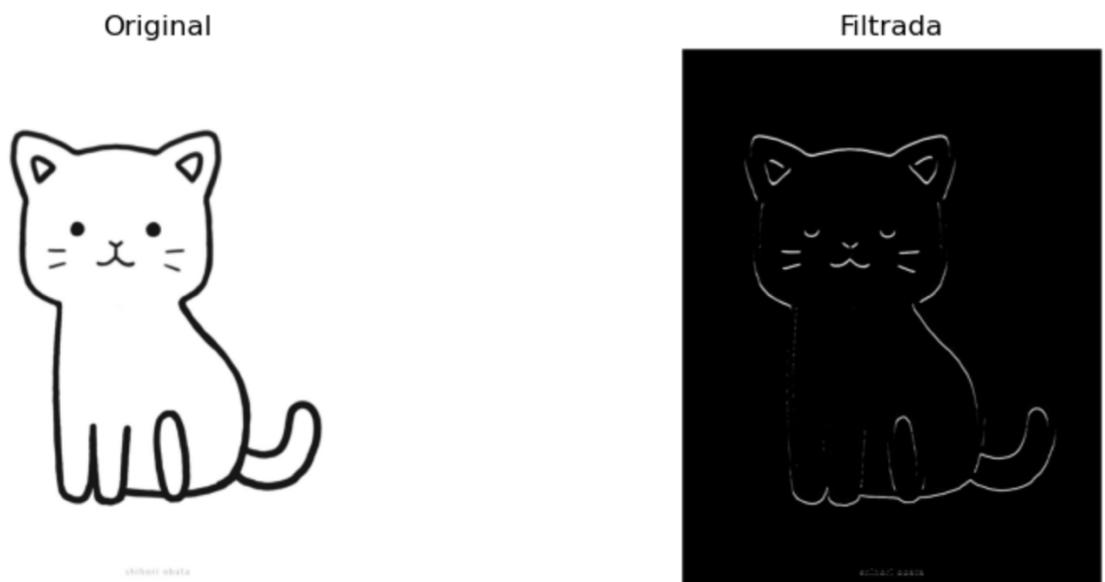
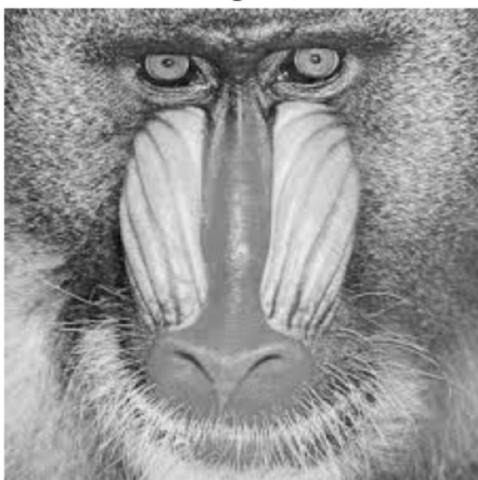


Imagen: lena.png



Imagen: mandrill.jpg

Original



Filtrada



Imagen: ninioB.png

Original



Filtrada

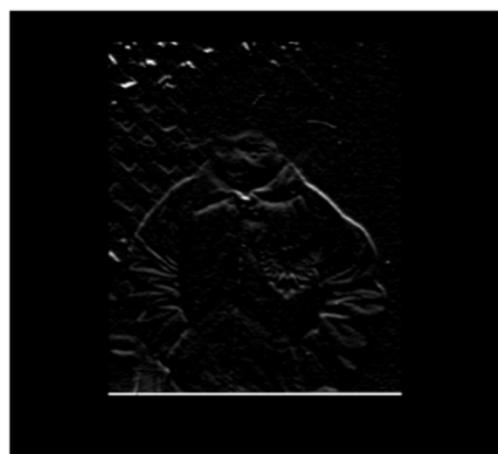
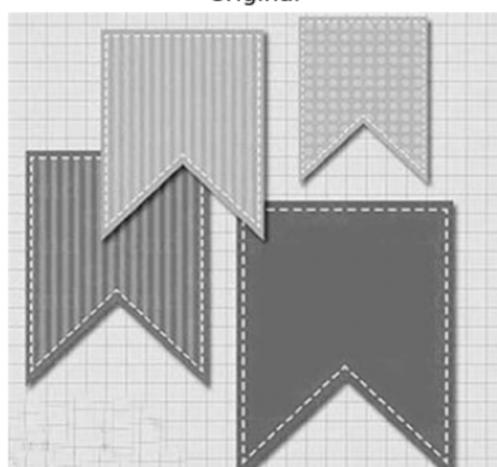


Imagen: patrones1.jpg

Original



Filtrada

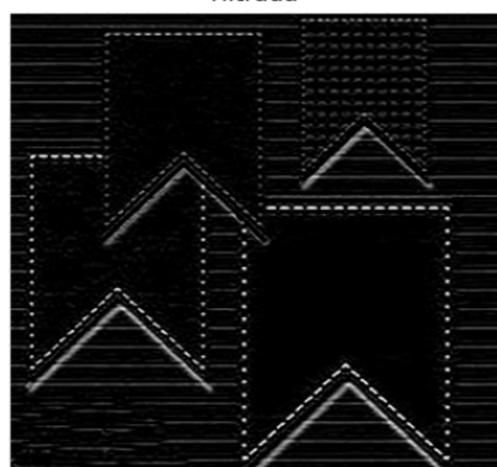
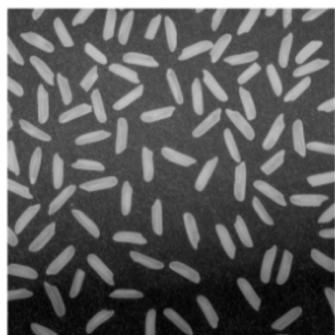


Imagen: riceB.png

Original



Filtrada

