```matlab
% Load the image
img1 = imread('https://images.pexels.com/photos/371633/pexels-
photo-371633.jpeg?cs=srgb&dl=clouds-country-daylight-371633.jpg&fm=jpg');
if size(img1, 3) == 3
    img1 = rgb2gray(img1);
end

[rows, cols] = size(img1);
[X, Y] = meshgrid(1:cols, 1:rows);
centerX = cols/2;
centerY = rows/2;
radius = min(rows, cols)/4;
mask = ((X - centerX).^2 + (Y - centerY).^2 <= radius^2);

masked_img = img1 .* uint8(mask);

gaussian_filter = fspecial('gaussian', [7 7], 2);
avg_filter = fspecial('average', [7 7]);

gaussian_filtered = imfilter(masked_img, gaussian_filter);
avg_filtered = imfilter(masked_img, avg_filter);

% High-pass filters
laplacian_filter = fspecial('laplacian', 0);
prewitt_filter_x = fspecial('prewitt');
prewitt_filter_y = prewitt_filter_x';

laplacian_filtered = double(imfilter(masked_img, laplacian_filter));
prewitt_filtered_x = double(imfilter(masked_img, prewitt_filter_x));
prewitt_filtered_y = double(imfilter(masked_img, prewitt_filter_y));
prewitt_filtered = sqrt(prewitt_filtered_x.^2 + prewitt_filtered_y.^2);

% Display results
figure;
subplot(2,3,1), imshow(masked_img), title('Original Image');
subplot(2,3,2), imshow(masked_img), title('Masked Image');
subplot(2,3,3), imshow(gaussian_filtered), title('Gaussian Filter');
subplot(2,3,4), imshow(avg_filtered), title('Average Filter');
subplot(2,3,5), imshow(laplacian_filtered, []), title('Laplacian Filter');
subplot(2,3,6), imshow(prewitt_filtered, []), title('Prewitt Filter');
```

Original Image

Masked Image

Gaussian Filter

Average Filter

Laplacian Filter

Prewitt Filter