```matlab
function output = kuwahara_filter(image, window_size)
    % Kuwahara filter implementation
    % image: input image (grayscale or RGB)
    % window_size: size of the filter window (must be an odd number, e.g.,
5, 7)

    % Convert to grayscale if the input is RGB
    if size(image, 3) == 3
        image = rgb2gray(image);
    end

    % Pad the image to handle borders
    padded_image = padarray(image, [floor(window_size/2) floor(window_size/
2)], 'replicate');
    output = zeros(size(image));  % Initialize output image

    % Loop through each pixel in the image
    for i = 1:size(image, 1)
        for j = 1:size(image, 2)
            % Extract the window around the current pixel
            window = padded_image(i:i+window_size-1, j:j+window_size-1);

            % Divide the window into four overlapping regions
            region1 = window(1:floor(window_size/2)+1, 1:floor(window_size/
2)+1);
            region2 = window(1:floor(window_size/2)+1, floor(window_size/
2)+1:end);
            region3 = window(floor(window_size/2)+1:end, 1:floor(window_size/
2)+1);
            region4 = window(floor(window_size/2)+1:end, floor(window_size/
2)+1:end);

            % Compute the mean and variance for each region
            mean1 = mean(region1(:)); var1 = var(double(region1(:)));
            mean2 = mean(region2(:)); var2 = var(double(region2(:)));
            mean3 = mean(region3(:)); var3 = var(double(region3(:)));
            mean4 = mean(region4(:)); var4 = var(double(region4(:)));

            % Choose the region with the lowest variance
            [~, idx] = min([var1, var2, var3, var4]);
            means = [mean1, mean2, mean3, mean4];

            % Set the output pixel to the mean of the selected region
            output(i, j) = means(idx);
        end
    end

    % Convert the result back to uint8 format
    output = uint8(output);
end
```

```matlab
% Read the image
I = imread('cat.jpeg');

% Apply Kuwahara filter with a 5x5 window size
window_size = 5;  % You can adjust this (e.g., 5, 7, etc.)
filtered_image = kuwahara_filter(I, window_size);

% Display the original and filtered images side by side
figure;
subplot(1, 2, 1);
imshow(I);
title('Original Image');

subplot(1, 2, 2);
imshow(filtered_image);
title(['Kuwahara Filtered Image (', num2str(window_size), 'x',
num2str(window_size), ')']);
```

Original Image

Kuwahara Filtered Image (5x5)