Department of Computer Science Kasetsart University Lab 5 Noise Reduction Asst.Prof. Dr. Pakaket Wattuya



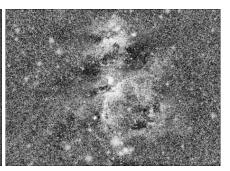












Filter Images Using imfilter and Predefined Filters (fspecial) in Spatial Domain (Convolution)

MATLAB functions	Example
B = imfilter(A,h)	Filters the multidimensional array A with the multidimensional filter h.
h = fspecial(type, parameters)	Creates a 2-D filter h of the specified type. fspecial returns h as a correlation kernel, which is the appropriate form to use with imfilter. type is a string having one of these values.
	<pre>Example h = fspecial('gaussian', hsize, sigma) returns a rotationally symmetric Gaussian lowpass filter of size hsize with standard deviation sigma (positive).</pre>
	<pre>h = fspecial('gaussian',[3 3],0.5);</pre>
	<pre>h = fspecial('average', hsize) returns an averaging filter h of size hsize.</pre>
	<pre>h = fspecial('average',[3 3]);</pre>
B = medfilt2(A)	Performs median filtering of the matrix A using the default 3-by-3 neighborhood.
<pre>B = medfilt2(A, [m n])</pre>	Performs median filtering of the matrix A in two dimensions. Each output pixel contains the median value in the m-by-n neighborhood around the corresponding pixel in the input image.