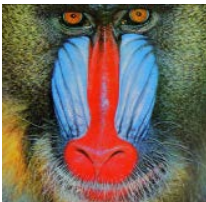
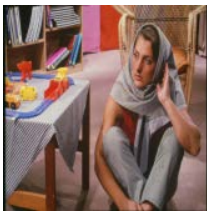
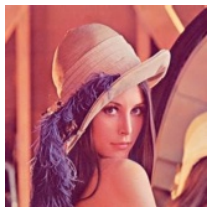
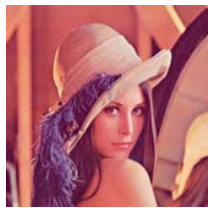
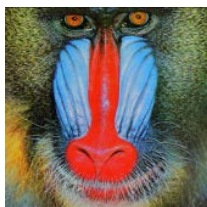
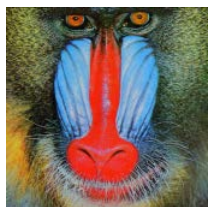


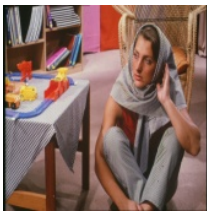
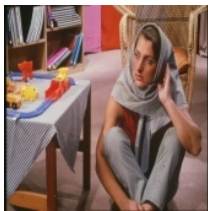
LAMPIRAN – A

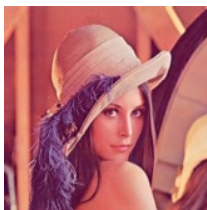
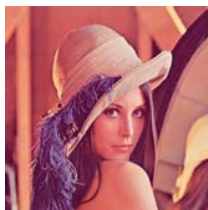
CITRA HASIL PERCOBAAN

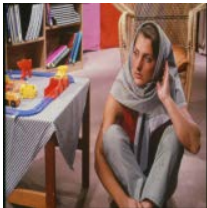
1. Citra Hasil Watermarking

Nama Citra	Citra Asli $\alpha = 1$	Citra yang Telah Disisipkan Watermark	Watermark Asli dan Watermark Hasil Ekstraksi						
Lena 256			 Ekstraksi RedEkstraksi GreenEkstraksi Blue  Nilai NCC<table><tr><td>Red</td><td>1</td></tr><tr><td>Green</td><td>0.976</td></tr><tr><td>Blue</td><td>1</td></tr></table> Watermark	Red	1	Green	0.976	Blue	1
Red	1								
Green	0.976								
Blue	1								
Baboon 256			 Ekstraksi RedEkstraksi GreenEkstraksi Blue  Nilai NCC<table><tr><td>Red</td><td>1</td></tr><tr><td>Green</td><td>0.976</td></tr><tr><td>Blue</td><td>1</td></tr></table> Watermark	Red	1	Green	0.976	Blue	1
Red	1								
Green	0.976								
Blue	1								

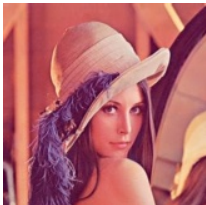
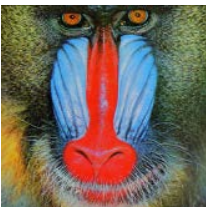
Barbara 256			 Ekstraksi Red  Ekstraksi Green  Ekstraksi Blue  Watermark Nilai NCC <table><tr><td>Red</td><td>1</td></tr><tr><td>Green</td><td>0.976</td></tr><tr><td>Blue</td><td>1</td></tr></table>	Red	1	Green	0.976	Blue	1
Red	1								
Green	0.976								
Blue	1								
Lena 512			 Ekstraksi Red  Ekstraksi Green  Ekstraksi Blue  Watermark Nilai NCC <table><tr><td>Red</td><td>1</td></tr><tr><td>Green</td><td>0.976</td></tr><tr><td>Blue</td><td>1</td></tr></table>	Red	1	Green	0.976	Blue	1
Red	1								
Green	0.976								
Blue	1								
Baboon 512			 Ekstraksi Red  Ekstraksi Green  Ekstraksi Blue  Watermark Nilai NCC <table><tr><td>Red</td><td>1</td></tr><tr><td>Green</td><td>0.976</td></tr><tr><td>Blue</td><td>1</td></tr></table>	Red	1	Green	0.976	Blue	1
Red	1								
Green	0.976								
Blue	1								

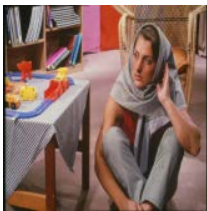
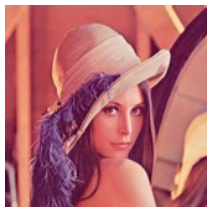
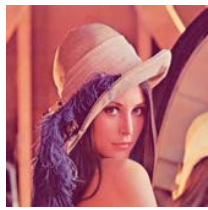
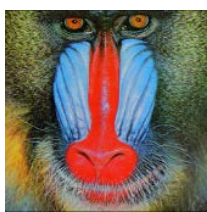
Barbara 512			 Ekstraksi Red  Ekstraksi Green  Ekstraksi Blue  Watermark <table><thead><tr><th colspan="2">Nilai NCC</th></tr></thead><tbody><tr><td>Red</td><td>1</td></tr><tr><td>Green</td><td>0.976</td></tr><tr><td>Blue</td><td>1</td></tr></tbody></table>	Nilai NCC		Red	1	Green	0.976	Blue	1
Nilai NCC											
Red	1										
Green	0.976										
Blue	1										

Nama Citra	Citra Asli $\alpha = 3$	Citra yang Telah Disisipkan Watermark	Watermark Asli dan Watermark Hasil Ekstraksi
Lena 256			 Ekstraksi RedEkstraksi GreenEkstraksi Blue  Watermark Nilai NCC Red 1 Green 0.976 Blue 1

Baboon 256			 Ekstraksi Red Ekstraksi Green Ekstraksi Blue  Watermark Nilai NCC <table><tr><td>Red</td><td>1</td></tr><tr><td>Green</td><td>0.976</td></tr><tr><td>Blue</td><td>1</td></tr></table>	Red	1	Green	0.976	Blue	1
Red	1								
Green	0.976								
Blue	1								
Barbara 256			 Ekstraksi Red Ekstraksi Green Ekstraksi Blue  Watermark Nilai NCC <table><tr><td>Red</td><td>1</td></tr><tr><td>Green</td><td>0.976</td></tr><tr><td>Blue</td><td>1</td></tr></table>	Red	1	Green	0.976	Blue	1
Red	1								
Green	0.976								
Blue	1								
Lena 512			 Ekstraksi Red Ekstraksi Green Ekstraksi Blue  Watermark Nilai NCC <table><tr><td>Red</td><td>1</td></tr><tr><td>Green</td><td>0.976</td></tr><tr><td>Blue</td><td>1</td></tr></table>	Red	1	Green	0.976	Blue	1
Red	1								
Green	0.976								
Blue	1								

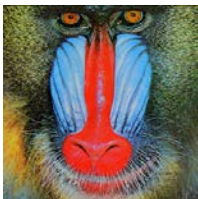
Baboon 512			 Ekstraksi Red Ekstraksi Green Ekstraksi Blue  Watermark Nilai NCC Red 1 Green 0.976 Blue 1
Barbara 512			 Ekstraksi Red Ekstraksi Green Ekstraksi Blue  Watermark Nilai NCC Red 1 Green 0.976 Blue 1

Nama Citra	Citra Asli $\alpha = 5$	Citra yang Telah Disisipkan Watermark	Watermark Asli dan Watermark Hasil Ekstraksi								
Lena 256			 <table><tr><th colspan="2">Nilai NCC</th></tr><tr><td>Red</td><td>1</td></tr><tr><td>Green</td><td>0.976</td></tr><tr><td>Blue</td><td>1</td></tr></table>	Nilai NCC		Red	1	Green	0.976	Blue	1
Nilai NCC											
Red	1										
Green	0.976										
Blue	1										
Baboon 256			 <table><tr><th colspan="2">Nilai NCC</th></tr><tr><td>Red</td><td>1</td></tr><tr><td>Green</td><td>0.976</td></tr><tr><td>Blue</td><td>1</td></tr></table>	Nilai NCC		Red	1	Green	0.976	Blue	1
Nilai NCC											
Red	1										
Green	0.976										
Blue	1										

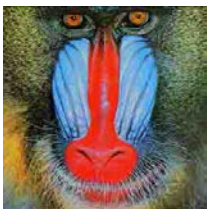
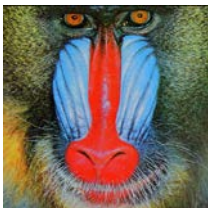
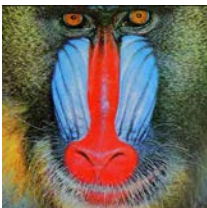
Barbara 256			 Ekstraksi Red Ekstraksi Green Ekstraksi Blue  Watermark Nilai NCC <table><tr><td>Red</td><td>1</td></tr><tr><td>Green</td><td>0.976</td></tr><tr><td>Blue</td><td>1</td></tr></table>	Red	1	Green	0.976	Blue	1
Red	1								
Green	0.976								
Blue	1								
Lena 512			 Ekstraksi Red Ekstraksi Green Ekstraksi Blue  Watermark Nilai NCC <table><tr><td>Red</td><td>1</td></tr><tr><td>Green</td><td>0.976</td></tr><tr><td>Blue</td><td>1</td></tr></table>	Red	1	Green	0.976	Blue	1
Red	1								
Green	0.976								
Blue	1								
Baboon 512			 Ekstraksi Red Ekstraksi Green Ekstraksi Blue  Watermark Nilai NCC <table><tr><td>Red</td><td>1</td></tr><tr><td>Green</td><td>0.976</td></tr><tr><td>Blue</td><td>1</td></tr></table>	Red	1	Green	0.976	Blue	1
Red	1								
Green	0.976								
Blue	1								

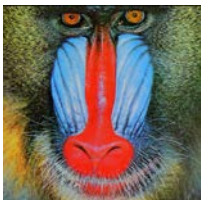
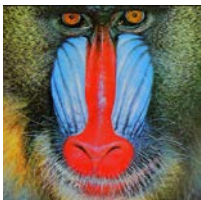
Barbara 512			 Ekstraksi Red  Ekstraksi Green  Ekstraksi Blue								
			 Watermark <table><tr><th colspan="2">Nilai NCC</th></tr><tr><td>Red</td><td>1</td></tr><tr><td>Green</td><td>0.976</td></tr><tr><td>Blue</td><td>1</td></tr></table>	Nilai NCC		Red	1	Green	0.976	Blue	1
Nilai NCC											
Red	1										
Green	0.976										
Blue	1										

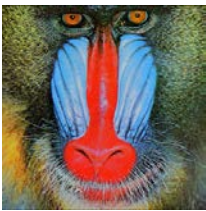
2. Hasil ekstraksi *watermark* citra Baboon yang telah disisipkan *watermark* dan di kompres dengan faktor kualitas (Q) =0 dan 10

Nama Citra	Citra terwatermark	Citra terwatermark di kompres Q=0	Watermark Asli dan Watermark Hasil Ekstraksi						
Baboon 256	 $\alpha = 1$		 Ekstraksi RedEkstraksi GreenEkstraksi Blue  Watermark Nilai NCC<table><tr><td>Red</td><td>0.773344</td></tr><tr><td>Green</td><td>0.501732</td></tr><tr><td>Blue</td><td>0.604803</td></tr></table>	Red	0.773344	Green	0.501732	Blue	0.604803
Red	0.773344								
Green	0.501732								
Blue	0.604803								

Baboon 512	 $\alpha = 1$		   Ekstraksi Red Ekstraksi Green Ekstraksi Blue  Nilai NCC Red 0.899248 Green 0.625064 Blue 0.636651 Watermark
Baboon 256	 $\alpha = 3$		   Ekstraksi Red Ekstraksi Green Ekstraksi Blue  Nilai NCC Red 0.860302 Green 0.639242 Blue 0.642428 Watermark
Baboon 512	 $\alpha = 3$		   Ekstraksi Red Ekstraksi Green Ekstraksi Blue  Nilai NCC Red 0.949518 Green 0.69622 Blue 0.69671 Watermark

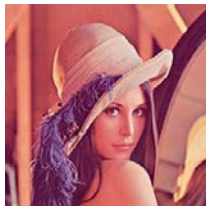
Baboon 256	 $\alpha = 5$		  Watermark <table><thead><tr><th colspan="2">Nilai NCC</th></tr></thead><tbody><tr><td>Red</td><td>0.925073</td></tr><tr><td>Green</td><td>0.730662</td></tr><tr><td>Blue</td><td>0.689859</td></tr></tbody></table>	Nilai NCC		Red	0.925073	Green	0.730662	Blue	0.689859
Nilai NCC											
Red	0.925073										
Green	0.730662										
Blue	0.689859										
Baboon 512	 $\alpha = 5$		  Watermark <table><thead><tr><th colspan="2">Nilai NCC</th></tr></thead><tbody><tr><td>Red</td><td>0.982264</td></tr><tr><td>Green</td><td>0.763129</td></tr><tr><td>Blue</td><td>0.748995</td></tr></tbody></table>	Nilai NCC		Red	0.982264	Green	0.763129	Blue	0.748995
Nilai NCC											
Red	0.982264										
Green	0.763129										
Blue	0.748995										

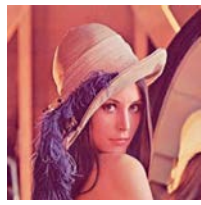
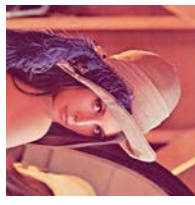
Nama Citra	Citra terwatermark	Citra terwatermark di kompres Q=10	Watermark Asli dan Watermark Hasil Ekstraksi								
Baboon 256	 $\alpha = 1$		 <table><tr><th colspan="2">Nilai NCC</th></tr><tr><td>Red</td><td>1</td></tr><tr><td>Green</td><td>0.975918</td></tr><tr><td>Blue</td><td>0.994961</td></tr></table>	Nilai NCC		Red	1	Green	0.975918	Blue	0.994961
Nilai NCC											
Red	1										
Green	0.975918										
Blue	0.994961										
Baboon 512	 $\alpha = 1$		 <table><tr><th colspan="2">Nilai NCC</th></tr><tr><td>Red</td><td>0.999877</td></tr><tr><td>Green</td><td>0.976</td></tr><tr><td>Blue</td><td>0.999466</td></tr></table>	Nilai NCC		Red	0.999877	Green	0.976	Blue	0.999466
Nilai NCC											
Red	0.999877										
Green	0.976										
Blue	0.999466										

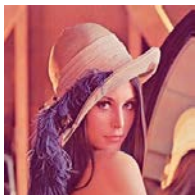
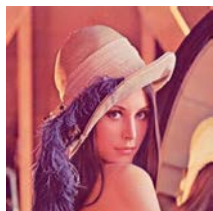
Baboon 256	 $\alpha = 3$		 Ekstraksi Red Ekstraksi Green Ekstraksi Blue  Watermark Nilai NCC<table><tr><td>Red</td><td>1</td></tr><tr><td>Green</td><td>0.976</td></tr><tr><td>Blue</td><td>1</td></tr></table>	Red	1	Green	0.976	Blue	1
Red	1								
Green	0.976								
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Baboon 512	 $\alpha = 3$		 Ekstraksi Red Ekstraksi Green Ekstraksi Blue  Watermark Nilai NCC<table><tr><td>Red</td><td>1</td></tr><tr><td>Green</td><td>0.976</td></tr><tr><td>Blue</td><td>1</td></tr></table>	Red	1	Green	0.976	Blue	1
Red	1								
Green	0.976								
Blue	1								
Baboon 256	 $\alpha = 5$		 Ekstraksi Red Ekstraksi Green Ekstraksi Blue  Watermark Nilai NCC<table><tr><td>Red</td><td>1</td></tr><tr><td>Green</td><td>0.976</td></tr><tr><td>Blue</td><td>1</td></tr></table>	Red	1	Green	0.976	Blue	1
Red	1								
Green	0.976								
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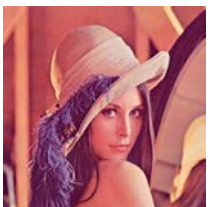
Baboon			 Ekstraksi Red	 Ekstraksi Green	 Ekstraksi Blue								
512	$\alpha = 5$		 Watermark	<table><thead><tr><th colspan="2">Nilai NCC</th></tr></thead><tbody><tr><td>Red</td><td>1</td></tr><tr><td>Green</td><td>0.976</td></tr><tr><td>Blue</td><td>1</td></tr></tbody></table>		Nilai NCC		Red	1	Green	0.976	Blue	1
Nilai NCC													
Red	1												
Green	0.976												
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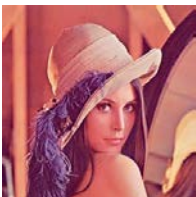
3. Hasil ekstraksi *watermark* citra Lena yang telah disisipkan *watermark* dan di rotasi dengan rotasi kanan 90°, kiri 90°, dan 180°.

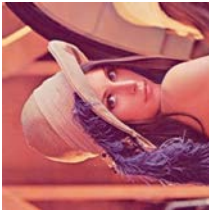
Nama Citra	Citra terwatermark	Citra terwatermark di rotasi kanan 90°	Watermark Asli dan Watermark Hasil Ekstraksi						
Lena 256	 $\alpha = 1$		 Ekstraksi Red  Ekstraksi Green  Ekstraksi Blue  Watermark Nilai NCC <table><tr><td>Red</td><td>1</td></tr><tr><td>Green</td><td>0.976</td></tr><tr><td>Blue</td><td>1</td></tr></table>	Red	1	Green	0.976	Blue	1
Red	1								
Green	0.976								
Blue	1								

Lena 512	 $\alpha = 1$		 Ekstraksi RedEkstraksi GreenEkstraksi Blue  Nilai NCC Red1 Green0.976 Blue1 Watermark
Lena 256	 $\alpha = 3$		 Ekstraksi RedEkstraksi GreenEkstraksi Blue  Nilai NCC Red1 Green0.976 Blue1 Watermark
Lena 512	 $\alpha = 3$		 Ekstraksi RedEkstraksi GreenEkstraksi Blue  Nilai NCC Red1 Green0.976 Blue1 Watermark

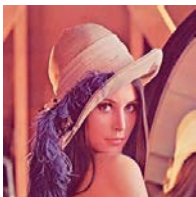
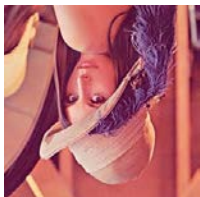
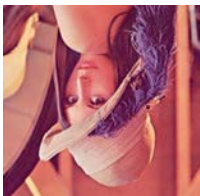
Lena 256	 $\alpha = 5$		 Ekstraksi RedEkstraksi GreenEkstraksi Blue  Watermark Nilai NCC<table><tr><td>Red</td><td>1</td></tr><tr><td>Green</td><td>0.976</td></tr><tr><td>Blue</td><td>1</td></tr></table>	Red	1	Green	0.976	Blue	1
Red	1								
Green	0.976								
Blue	1								
Lena 512	 $\alpha = 5$		 Ekstraksi RedEkstraksi GreenEkstraksi Blue  Watermark Nilai NCC<table><tr><td>Red</td><td>1</td></tr><tr><td>Green</td><td>0.976</td></tr><tr><td>Blue</td><td>1</td></tr></table>	Red	1	Green	0.976	Blue	1
Red	1								
Green	0.976								
Blue	1								

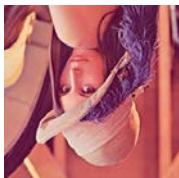
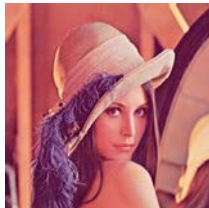
Nama Citra	Citra terwatermark	Citra terwatermark di rotasi kiri 90°	Watermark Asli dan Watermark Hasil Ekstraksi								
Lena 256	 $\alpha = 1$		 Ekstraksi RedEkstraksi GreenEkstraksi Blue <table><thead><tr><th colspan="2">Nilai NCC</th></tr></thead><tbody><tr><td>Red</td><td>1</td></tr><tr><td>Green</td><td>0.976</td></tr><tr><td>Blue</td><td>1</td></tr></tbody></table>Watermark	Nilai NCC		Red	1	Green	0.976	Blue	1
Nilai NCC											
Red	1										
Green	0.976										
Blue	1										
Lena 512	 $\alpha = 1$		 Ekstraksi RedEkstraksi GreenEkstraksi Blue <table><thead><tr><th colspan="2">Nilai NCC</th></tr></thead><tbody><tr><td>Red</td><td>1</td></tr><tr><td>Green</td><td>0.976</td></tr><tr><td>Blue</td><td>1</td></tr></tbody></table>Watermark	Nilai NCC		Red	1	Green	0.976	Blue	1
Nilai NCC											
Red	1										
Green	0.976										
Blue	1										

Lena 256			 Ekstraksi Red  Ekstraksi Green  Ekstraksi Blue  Watermark Nilai NCC Red 1 Green 0.976 Blue 1
Lena 512			 Ekstraksi Red  Ekstraksi Green  Ekstraksi Blue  Watermark Nilai NCC Red 1 Green 0.976 Blue 1
Lena 256			 Ekstraksi Red  Ekstraksi Green  Ekstraksi Blue  Watermark Nilai NCC Red 1 Green 0.976 Blue 1

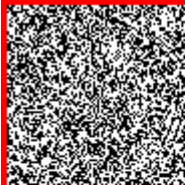
Lena 512	 $\alpha = 5$		   Ekstraksi Red Ekstraksi Green Ekstraksi Blue  Nilai NCC Red 1 Green 0.976 Blue 1 Watermark
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Nama Citra	Citra terwatermark	Citra terwatermark di rotasi 180°	Watermark Asli dan Watermark Hasil Ekstraksi
Lena 256	 $\alpha = 1$		   Ekstraksi Red Ekstraksi Green Ekstraksi Blue  Nilai NCC Red 1 Green 0.976 Blue 1 Watermark

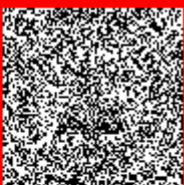
Lena 512	 $\alpha = 1$		 Ekstraksi Red  Ekstraksi Green  Ekstraksi Blue  Watermark Nilai NCC<table><tr><td>Red</td><td>1</td></tr><tr><td>Green</td><td>0.976</td></tr><tr><td>Blue</td><td>1</td></tr></table>	Red	1	Green	0.976	Blue	1
Red	1								
Green	0.976								
Blue	1								
Lena 256	 $\alpha = 3$		 Ekstraksi Red  Ekstraksi Green  Ekstraksi Blue  Watermark Nilai NCC<table><tr><td>Red</td><td>1</td></tr><tr><td>Green</td><td>0.976</td></tr><tr><td>Blue</td><td>1</td></tr></table>	Red	1	Green	0.976	Blue	1
Red	1								
Green	0.976								
Blue	1								
Lena 512	 $\alpha = 3$		 Ekstraksi Red  Ekstraksi Green  Ekstraksi Blue  Watermark Nilai NCC<table><tr><td>Red</td><td>1</td></tr><tr><td>Green</td><td>0.976</td></tr><tr><td>Blue</td><td>1</td></tr></table>	Red	1	Green	0.976	Blue	1
Red	1								
Green	0.976								
Blue	1								

Lena 256	 $\alpha = 5$		 Ekstraksi Red Ekstraksi Green Ekstraksi Blue  Watermark Nilai NCC <table><tr><td>Red</td><td>1</td></tr><tr><td>Green</td><td>0.976</td></tr><tr><td>Blue</td><td>1</td></tr></table>	Red	1	Green	0.976	Blue	1
Red	1								
Green	0.976								
Blue	1								
Lena 512	 $\alpha = 5$		 Ekstraksi Red Ekstraksi Green Ekstraksi Blue  Watermark Nilai NCC <table><tr><td>Red</td><td>1</td></tr><tr><td>Green</td><td>0.976</td></tr><tr><td>Blue</td><td>1</td></tr></table>	Red	1	Green	0.976	Blue	1
Red	1								
Green	0.976								
Blue	1								

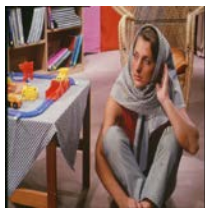
4. Hasil ekstraksi *watermark* citra Barbara yang telah disisipkan *watermark* dan di *median filtering* 3x3 dan 7x7 piksel.

Nama Citra	Citra terwatermark	Citra terwatermark di median filter 3x3	Watermark Asli dan Watermark Hasil Ekstraksi								
Barbara 256	 $\alpha = 1$		 Ekstraksi RedEkstraksi GreenEkstraksi Blue  Watermark<table><tr><th colspan="2">Nilai NCC</th></tr><tr><td>Red</td><td>0.624566</td></tr><tr><td>Green</td><td>0.501946</td></tr><tr><td>Blue</td><td>0.558388</td></tr></table>	Nilai NCC		Red	0.624566	Green	0.501946	Blue	0.558388
Nilai NCC											
Red	0.624566										
Green	0.501946										
Blue	0.558388										
Barbara 512	 $\alpha = 1$		 Ekstraksi RedEkstraksi GreenEkstraksi Blue  Watermark<table><tr><th colspan="2">Nilai NCC</th></tr><tr><td>Red</td><td>0.661185</td></tr><tr><td>Green</td><td>0.59958</td></tr><tr><td>Blue</td><td>0.644656</td></tr></table>	Nilai NCC		Red	0.661185	Green	0.59958	Blue	0.644656
Nilai NCC											
Red	0.661185										
Green	0.59958										
Blue	0.644656										

Barbara 256	 $\alpha = 3$		  Watermark Nilai NCC<table><tr><td>Red</td><td>0.650558</td></tr><tr><td>Green</td><td>0.550074</td></tr><tr><td>Blue</td><td>0.60148</td></tr></table>	Red	0.650558	Green	0.550074	Blue	0.60148
Red	0.650558								
Green	0.550074								
Blue	0.60148								
Barbara 512	 $\alpha = 3$		  Watermark Nilai NCC<table><tr><td>Red</td><td>0.686765</td></tr><tr><td>Green</td><td>0.634302</td></tr><tr><td>Blue</td><td>0.675621</td></tr></table>	Red	0.686765	Green	0.634302	Blue	0.675621
Red	0.686765								
Green	0.634302								
Blue	0.675621								
Barbara 256	 $\alpha = 5$		  Watermark Nilai NCC<table><tr><td>Red</td><td>0.673738</td></tr><tr><td>Green</td><td>0.594308</td></tr><tr><td>Blue</td><td>0.64091</td></tr></table>	Red	0.673738	Green	0.594308	Blue	0.64091
Red	0.673738								
Green	0.594308								
Blue	0.64091								

Barbara 512	 $\alpha = 5$		 Ekstraksi Red  Ekstraksi Green  Ekstraksi Blue  Watermark <table><tr><th colspan="2">Nilai NCC</th></tr><tr><td>Red</td><td>0.711761</td></tr><tr><td>Green</td><td>0.668637</td></tr><tr><td>Blue</td><td>0.70665</td></tr></table>	Nilai NCC		Red	0.711761	Green	0.668637	Blue	0.70665
Nilai NCC											
Red	0.711761										
Green	0.668637										
Blue	0.70665										

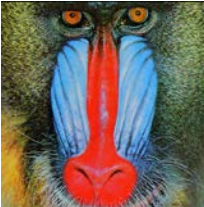
Nama Citra	Citra terwatermark	Citra terwatermark di median filter 7x7	Watermark Asli dan Watermark Hasil Ekstraksi
Barbara 256	 $\alpha = 1$		 Ekstraksi Red  Ekstraksi Green  Ekstraksi Blue  Watermark Nilai NCC Red 0.528701 Green 0.333534 Blue 0.394822

Barbara 512	 $\alpha = 1$		  Watermark Nilai NCC Red 0.60413 Green 0.504875 Blue 0.555304
Barbara 256	 $\alpha = 3$		  Watermark Nilai NCC Red 0.553199 Green 0.374904 Blue 0.43389
Barbara 512	 $\alpha = 3$		  Watermark Nilai NCC Red 0.623579 Green 0.538236 Blue 0.582647

Barbara 256	 $\alpha = 5$	 $\alpha = 5$	 Ekstraksi Red Ekstraksi Green Ekstraksi Blue  Watermark Nilai NCC Red 0.572714 Green 0.416543 Blue 0.475427
Barbara 512	 $\alpha = 5$	 $\alpha = 5$	 Ekstraksi Red Ekstraksi Green Ekstraksi Blue  Watermark Nilai NCC Red 0.643985 Green 0.569137 Blue 0.61167

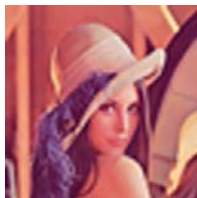
5. Hasil ekstraksi watermark citra baboon yang telah disisipkan watermark dan dilakukan proses *cropping*.

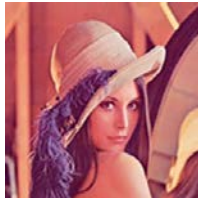
Nama Citra	Citra terwatermark	Citra terwatermark hasil <i>Cropping</i>	Watermark asli dan Watermark Hasil Ekstraksi
Baboon 256	 $\alpha = 1$		   Ekstraksi Red Ekstraksi Green Ekstraksi Blue  Nilai NCC Red 0.729651 Green 0.83544 Blue 0.744451 Watermark
Baboon 512	 $\alpha = 1$		   Ekstraksi Red Ekstraksi Green Ekstraksi Blue  Nilai NCC Red 0.907216 Green 0.840856 Blue 0.751549 Watermark

Baboon 256			   Ekstraksi Red Ekstraksi Green Ekstraksi Blue  Watermark Nilai NCC Red 0.826185 Green 0.87067 Blue 0.746818
Baboon 512			   Ekstraksi Red Ekstraksi Green Ekstraksi Blue  Watermark Nilai NCC Red 0.936388 Green 0.877479 Blue 0.779944
Baboon 256			   Ekstraksi Red Ekstraksi Green Ekstraksi Blue  Watermark Nilai NCC Red 0.892508 Green 0.901521 Blue 0.749043

	$\alpha = 5$		
Baboon 512			 Ekstraksi Red  Ekstraksi Green  Ekstraksi Blue  Watermark Nilai NCC Red 0.959743 Green 0.909469 Blue 0.803243
	$\alpha = 5$		

6. Hasil ekstraksi watermark citra baboon yang telah disisipkan watermark dan dilakukan proses *scaling*

Nama Citra	Citra terwatermark	Citra terwatermark hasil <i>Scaling</i>	Watermark asli dan Watermark Hasil Ekstraksi
Lena 256			 Ekstraksi Red Ekstraksi Green Ekstraksi Blue  Watermark Nilai NCC Red 0.751799 Green 0.749673 Blue 0.747069
	$\alpha = 1$		

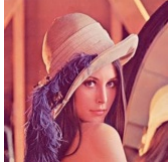
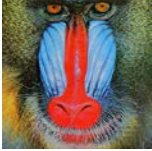
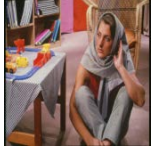
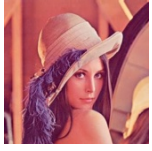
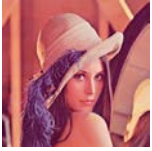
Lena 512			 Ekstraksi Red  Ekstraksi Green  Ekstraksi Blue  Watermark Nilai NCC Red 0.989881 Green 0.968626 Blue 0.995287
Lena 256			 Ekstraksi Red  Ekstraksi Green  Ekstraksi Blue  Watermark Nilai NCC Red 0.818164 Green 0.808567 Blue 0.814059
Lena 512			 Ekstraksi Red  Ekstraksi Green  Ekstraksi Blue  Watermark Nilai NCC Red 0.997949 Green 0.974771 Blue 0.998565

	$\alpha = 3$		
Lena 256			   Ekstraksi Red Ekstraksi Green Ekstraksi Blue  Nilai NCC Red 0.858808 Green 0.851299 Blue 0.861709 Watermark
Lena 512			   Ekstraksi Red Ekstraksi Green Ekstraksi Blue  Nilai NCC Red 0.999837 Green 0.975918 Blue 0.999837 Watermark
	$\alpha = 5$		

LAMPIRAN – B

DATA MOS

Mean Opinion Score (MOS) kualitas citra setelah disisipkan watermark

Nama Citra	Citra Asli	Citra yang Telah Disisipkan Watermark dengan $\alpha=1$	Citra yang Telah Disisipkan Watermark dengan $\alpha=3$	Citra yang Telah Disisipkan Watermark dengan $\alpha=5$
Lena 256				
Baboon 256				
Barbara 256				
Lena 512				
Baboon 512				
Barbara 512				

Kriteria penilaian kualitatif yang digunakan adalah :

1. *Excellent* yang direpresentasikan dengan angka 5, citra terwatermark mempunyai kualitas yang sangat baik yaitu sama persis dengan citra asli (*host image*).
2. *Good* yang direpresentasikan dengan angka 4, citra terwatermark mempunyai kualitas baik yaitu sama dengan citra asli (*host image*).
3. *Fair* yang direpresentasikan dengan angka 3, citra terwatermark mempunyai kualitas cukup baik yaitu agak berbeda dengan citra asli (*host image*).
4. *Poor* yang direpresentasikan dengan angka 2, citra terwatermark mempunyai kualitas buruk yaitu berbeda dengan citra asli (*host image*).
5. *Unsatisfactory* yang direpresentasikan dengan angka 1, citra terwatermark mempunyai kualitas sangat buruk yaitu sangat berbeda dengan citra asli (*host image*).

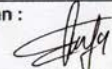
Nama : Andhy Joggy		Tanda tangan : 	
citra	$\alpha = 1$	$\alpha = 3$	$\alpha = 5$
Lena 256	4	3	4
Lena 512	3	3	3
Baboon 256	3	4	3
Baboon 512	3	3	3
Barbara 256	3	3	2
Barbara 512	4	4	3

Nama : Hendro Sihombing		Tanda tangan : 	
citra	$\alpha = 1$	$\alpha = 3$	$\alpha = 5$
Lena 256	4	3	3
Lena 512	3	3	4
Baboon 256	3	3	3
Baboon 512	3	3	2
Barbara 256	4	3	3
Barbara 512	3	3	3

Nama : ANDY SITUMORANG		Tanda tangan : 	
citra	$\alpha = 1$	$\alpha = 3$	$\alpha = 5$
Lena 256	4	4	3
Lena 512	4	3	3
Baboon 256	4	4	3
Baboon 512	3	3	3
Barbara 256	3	3	3
Barbara 512	4	3	4

Nama : RAMBO BARASA 1122074		Tanda tangan : 	
citra	$\alpha = 1$	$\alpha = 3$	$\alpha = 5$
Lena 256	3	4	4
Lena 512	3	4	4
Baboon 256	3	3	3
Baboon 512	4	3	3
Barbara 256	3	4	3
Barbara 512	3	3	3

Nama : Yudi Setiawan 0722095		Tanda tangan : 	
citra	$\alpha = 1$	$\alpha = 3$	$\alpha = 5$
Lena 256	4	4	3
Lena 512	3	4	3
Baboon 256	3	3	3
Baboon 512	3	4	4
Barbara 256	3	4	3
Barbara 512	3	3	3

Nama : Enko 0622026		Tanda tangan : 	
citra	$\alpha = 1$	$\alpha = 3$	$\alpha = 5$
Lena 256	3	3	4
Lena 512	4	3	3
Baboon 256	3	4	3
Baboon 512	4	3	3
Barbara 256	3	3	2
Barbara 512	4	4	3

Nama : <i>Farhan H. Furban</i> <i>0422097</i>		Tanda tangan : 	
citra	$\alpha = 1$	$\alpha = 3$	$\alpha = 5$
Lena 256	1	3	3
Lena 512	3	3	1
Baboon 256	3	3	3
Baboon 512	1	3	3
Barbara 256	3	3	3
Barbara 512	1	1	3

Nama : <i>PURWANTO</i> <i>06 22 112</i>		Tanda tangan : 	
citra	$\alpha = 1$	$\alpha = 3$	$\alpha = 5$
Lena 256	3	3	1
Lena 512	1	3	3
Baboon 256	3	3	3
Baboon 512	3	3	3
Barbara 256	1	3	3
Barbara 512	3	1	3

3/

Nama : <i>froni</i> <i>0822102</i>		Tanda tangan : 	
citra	$\alpha = 1$	$\alpha = 3$	$\alpha = 5$
Lena 256	3	1	3
Lena 512	3	1	3
Baboon 256	3	1	3
Baboon 512	1	1	1
Barbara 256	3	3	3
Barbara 512	3	1	3

Nama : Gomgom 1122073		Tanda tangan : 	
citra	$\alpha = 1$	$\alpha = 3$	$\alpha = 5$
Lena 256	4	4	3
Lena 512	3	3	3
Baboon 256	4	3	3
Baboon 512	3	3	4
Barbara 256	3	3	3
Barbara 512	3	4	3

Nama : Ilham U 1122062		Tanda tangan : 	
citra	$\alpha = 1$	$\alpha = 3$	$\alpha = 5$
Lena 256	3	3	3
Lena 512	3	3	3
Baboon 256	4	4	3
Baboon 512	3	4	3
Barbara 256	4	3	2
Barbara 512	3	3	3

Nama : Ario.S 0622058		Tanda tangan : 	
citra	$\alpha = 1$	$\alpha = 3$	$\alpha = 5$
Lena 256	3	4	4
Lena 512	3	4	3
Baboon 256	3	3	3
Baboon 512	3	3	4
Barbara 256	4	4	3
Barbara 512	3	4	4

Nama : Ricky Riyanto 0727036		Tanda tangan : 	
citra	$\alpha = 1$	$\alpha = 3$	$\alpha = 5$
Lena 256	3	4	4
Lena 512	3	3	3
Baboon 256	4	3	3
Baboon 512	3	3	4
Barbara 256	4	4	3
Barbara 512	4	3	3

Nama : Benny Tobing 0322102		Tanda tangan : 	
citra	$\alpha = 1$	$\alpha = 3$	$\alpha = 5$
Lena 256	3	3	4
Lena 512	3	3	4
Baboon 256	3	3	3
Baboon 512	4	3	3
Barbara 256	3	3	4
Barbara 512	4	4	4

Nama : Andreas D. Simanjuntak 11 RR061		Tanda tangan : 	
citra	$\alpha = 1$	$\alpha = 3$	$\alpha = 5$
Lena 256	3	3	4
Lena 512	3	4	4
Baboon 256	3	4	3
Baboon 512	3	3	2
Barbara 256	3	3	3
Barbara 512	3	4	3

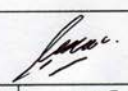
Nama : Venda Luntungan		Tanda tangan : 	
citra	$\alpha = 1$	$\alpha = 3$	$\alpha = 5$
Lena 256	3	4	4
Lena 512	4	3	4
Baboon 256	3	3	3
Baboon 512	4	3	3
Barbara 256	4	4	4
Barbara 512	3	3	3

Nama : Eidiom. A 0022116		Tanda tangan : 	
citra	$\alpha = 1$	$\alpha = 3$	$\alpha = 5$
Lena 256	4	3	4
Lena 512	3	4	3
Baboon 256	3	3	4
Baboon 512	3	3	3
Barbara 256	4	3	3
Barbara 512	4	3	3

Nama : Bonnie I.M. 0422108		Tanda tangan : 	
citra	$\alpha = 1$	$\alpha = 3$	$\alpha = 5$
Lena 256	3	4	4
Lena 512	4	4	4
Baboon 256	3	4	3
Baboon 512	3	3	3
Barbara 256	4	3	4
Barbara 512	3	3	4

Nama : Yonathan .A. ti 0822065		Tanda tangan : 	
citra	$\alpha = 1$	$\alpha = 3$	$\alpha = 5$
Lena 256	3	3	4
Lena 512	4	4	4
Baboon 256	3	3	4
Baboon 512	3	4	3
Barbara 256	3	4	3
Barbara 512	4	3	2

Nama : DAHLI 0622156		Tanda tangan : 	
citra	$\alpha = 1$	$\alpha = 3$	$\alpha = 5$
Lena 256	3	4	4
Lena 512	4	3	4
Baboon 256	3	3	3
Baboon 512	3	3	3
Barbara 256	3	3	4
Barbara 512	4	3	3

Nama : Adi Christ T.T. 0422024		Tanda tangan : 	
citra	$\alpha = 1$	$\alpha = 3$	$\alpha = 5$
Lena 256	4	4	4
Lena 512	4	3	4
Baboon 256	3	3	4
Baboon 512	3	3	4
Barbara 256	3	4	4
Barbara 512	4	4	3

LAMPIRAN – C
LISTING PROGRAM

Program Utama Proses Watermarking

```
function varargout = GUIku(varargin)
% GUIKU M-file for GUIku.fig
%     GUIKU, by itself, creates a new GUIKU or raises the
existing
%     singleton*.
%
%     H = GUIKU returns the handle to a new GUIKU or the handle
to
%     the existing singleton*.
%
%     GUIKU('CALLBACK',hObject,eventData,handles,...) calls the
local
%     function named CALLBACK in GUIKU.M with the given input
arguments.
%
%     GUIKU('Property','Value',...) creates a new GUIKU or raises
the
%     existing singleton*. Starting from the left, property
value pairs are
%     applied to the GUI before GUIku_OpeningFcn gets called. An
%     unrecognized property name or invalid value makes property
application
%     stop. All inputs are passed to GUIku_OpeningFcn via
varargin.
%
%     *See GUI Options on GUIDE's Tools menu. Choose "GUI allows
only one
%     instance to run (singleton)".
%
% See also: GUIDE, GUIDATA, GUIHANDLES

% Edit the above text to modify the response to help GUIku

% Last Modified by GUIDE v2.5 08-Apr-2013 13:54:51

% Begin initialization code - DO NOT EDIT
gui_Singleton = 1;
gui_State = struct('gui_Name',       mfilename, ...
    'gui_Singleton',  gui_Singleton, ...
    'gui_OpeningFcn', @GUIku_OpeningFcn, ...
    'gui_OutputFcn',  @GUIku_OutputFcn, ...
    'gui_LayoutFcn',  [] , ...
    'gui_Callback',   []);
if nargin && ischar(varargin{1})
    gui_State.gui_Callback = str2func(varargin{1});
end

if nargout
    [varargout{1:nargout}] = gui_mainfcn(gui_State, varargin{:});
else
    gui_mainfcn(gui_State, varargin{:});
end
% End initialization code - DO NOT EDIT
```

```

% --- Executes just before GUIku is made visible.
function GUIku_OpeningFcn(hObject, eventdata, handles, varargin)
% This function has no output args, see OutputFcn.
% hObject    handle to figure
% eventdata  reserved - to be defined in a future version of
MATLAB
% handles    structure with handles and user data (see GUIDATA)
% varargin   command line arguments to GUIku (see VARARGIN)

% Choose default command line output for GUIku
handles.output = hObject;

% Update handles structure
guidata(hObject, handles);

% UIWAIT makes GUIku wait for user response (see UIRESUME)
% uiwait(handles.figure1);

% --- Outputs from this function are returned to the command line.
function varargout = GUIku_OutputFcn(hObject, eventdata, handles)
% varargout  cell array for returning output args (see VARARGOUT);
% hObject    handle to figure
% eventdata  reserved - to be defined in a future version of
MATLAB
% handles    structure with handles and user data (see GUIDATA)

% Get default command line output from handles structure
varargout{1} = handles.output;

function edit1_Callback(hObject, eventdata, handles)
% hObject    handle to edit1 (see GCBO)
% eventdata  reserved - to be defined in a future version of
MATLAB
% handles    structure with handles and user data (see GUIDATA)

% Hints: get(hObject,'String') returns contents of edit1 as text
%        str2double(get(hObject,'String')) returns contents of
edit1 as a double

% --- Executes during object creation, after setting all
properties.
function edit1_CreateFcn(hObject, eventdata, handles)
% hObject    handle to edit1 (see GCBO)
% eventdata  reserved - to be defined in a future version of
MATLAB
% handles    empty - handles not created until after all
CreateFcns called

% Hint: edit controls usually have a white background on Windows.

```

```

%      See ISPC and COMPUTER.
if ispc && isequal(get(hObject,'BackgroundColor'),
get(0,'defaultUicontrolBackgroundColor'))
    set(hObject,'BackgroundColor','white');
end

% --- Executes on button press in pushbutton1.
function pushbutton1_Callback(hObject, eventdata, handles)
% hObject      handle to pushbutton1 (see GCBO)
% eventdata    reserved - to be defined in a future version of
MATLAB
% handles      structure with handles and user data (see GUIDATA)
%[FileName,PathName,FilterIndex] = uigetfile('.jpg','Pilih Gambar
Pertama');

global im1;
global Sglob;

clc

%Start Program Penyisipan
[FileName,PathName,FilterIndex] = uigetfile('.bmp','Pilih
Gambar');
pathimg = [PathName FileName];
citra = imread(pathimg);
axes(handles.axes1);
imshow(citra);
T = double(citra);

[FileName2,PathName2,FilterIndex] = uigetfile('.bmp','Pilih
Watermark');
pathimg2 = [PathName2 FileName2];

%Pengambilan image watermark
img = imread(pathimg2);
[a b c] = size(img);
if c > 1
    img_W = rgb2gray(img);
else
    img_W = img;
end
level = graythresh(img_W);
W = im2bw(img_W, level);
axes(handles.axes2);
imshow(W);

[filename pathname] = uiputfile('*.bmp','Simpan file citra
watermark black and white');
imwrite(W,[pathname filename]);

%Pemecahan Gambar berdasarkan RGB
Rk = T(:, :, 1);
Gk = T(:, :, 2);
Bk = T(:, :, 3);

alfa = str2double(get(handles.edit4, 'String'));

```



```

H(:,:,1)=penyisipan_per_channel(Rk,W,alfa);
H(:,:,2)=penyisipan_per_channel(Gk,W,alfa);
H(:,:,3)=penyisipan_per_channel(Bk,W,alfa);

%Hasil citra terwatermark di tampilkan
axes(handles.axes3);
im1 = H;
imshow(uint8(H));
[filename pathname] = uiputfile('*.bmp','Simpan file citra
terwatermark');
imwrite(uint8(im1),[pathname filename]);

%Hitung PSNR
citra_host = T;
inR = double(citra_host(:,:,1));
inG = double(citra_host(:,:,2));
inB = double(citra_host(:,:,3));

iw = im1;
rw = double(iw(:,:,1));
gw = double(iw(:,:,2));
bw = double(iw(:,:,3));

[lebar tinggi lapis] = size(citra_host);
nilai_MSE = 0;
for k=1:tinggi
    for h=1:lebar
        nilai_MSE = nilai_MSE + ( (inR(k,h)-rw(k,h)).^2 +
(inG(k,h)-gw(k,h)).^2 + (inB(k,h)-bw(k,h)).^2 ) ./ (3.* tinggi .*
lebar);
    end
end

nilai_PSNR = 10.*(log10((255.^2)/nilai_MSE));
set(handles.edit3,'String',nilai_PSNR);
%save data_aneh

function edit2_Callback(hObject, eventdata, handles)
% hObject    handle to edit2 (see GCBO)
% eventdata  reserved - to be defined in a future version of
MATLAB
% handles    structure with handles and user data (see GUIDATA)

% Hints: get(hObject,'String') returns contents of edit2 as text
%        str2double(get(hObject,'String')) returns contents of
edit2 as a double

% --- Executes during object creation, after setting all
properties.
function edit2_CreateFcn(hObject, eventdata, handles)
% hObject    handle to edit2 (see GCBO)
% eventdata  reserved - to be defined in a future version of
MATLAB
% handles    empty - handles not created until after all
CreateFcns called

```

```

% Hint: edit controls usually have a white background on Windows.
%       See ISPC and COMPUTER.
if ispc && isequal(get(hObject,'BackgroundColor'),
get(0,'defaultUiControlBackgroundColor'))
    set(hObject,'BackgroundColor','white');
end

% --- Executes on button press in pushbutton2.
function pushbutton2_Callback(hObject, eventdata, handles)
%global im1;
%global Sglob;
% hObject    handle to pushbutton2 (see GCBO)
% eventdata  reserved - to be defined in a future version of
MATLAB
% handles     structure with handles and user data (see GUIDATA)

% hObject    handle to pushbutton1 (see GCBO)
% eventdata  reserved - to be defined in a future version of
MATLAB
% handles     structure with handles and user data (see GUIDATA)

Sglob = get_S_host(handles);

% proses ekstraksi
[filename pathname] = uigetfile('*.','Pilih citra terwatermark');
imgku = imread([pathname filename]);
axes(handles.axes5);
imshow(imgku);

[FileName2,PathName2,FilterIndex] = uigetfile('.bmp','Pilih
Watermark');
pathimg2 = [PathName2 FileName2];
img = imread(pathimg2);
if islogical(img)
    W = img;
else
    [a b c] = size(img);
    if c > 1
        img_W = rgb2gray(img);
    else
        img_W = img;
    end
    level = graythresh(img_W);
    W = im2bw(img_W, level);
end
axes(handles.axes6);
imshow(W);

%Pemecahan Citra terwatermark ke RGB
alfa = str2double(get(handles.edit4,'String'));
M_star = double(imgku);
R = M_star(:,:,1);
G = M_star(:,:,2);
B = M_star(:,:,3);

```

```

W_star_bw = ekstraksi_per_channel(R, W, alfa, Sglob{1});
axes(handles.axes7);
imshow(W_star_bw);
ncc = fungsi_NCC(W_star_bw,W);
set(handles.edit5, 'String', ncc);
[filename pathname] = uiputfile('*.bmp', 'Simpan file citra
watermark hasil ekstraksi channel Red');
imwrite(W_star_bw,[pathname filename]);

W_star_bw = ekstraksi_per_channel(G, W, alfa, Sglob{2});
axes(handles.axes8);
imshow(W_star_bw);
% ncc = corr2(W_star_bw,W);-----
--
ncc = fungsi_NCC(W_star_bw,W)-0.024;
set(handles.edit6, 'String', ncc);
[filename pathname] = uiputfile('*.bmp', 'Simpan file citra
watermark hasil ekstraksi channel Green');
imwrite(W_star_bw,[pathname filename]);

W_star_bw = ekstraksi_per_channel(B, W, alfa, Sglob{3});
axes(handles.axes9);
imshow(W_star_bw);
ncc = fungsi_NCC(W_star_bw, W);
set(handles.edit7, 'String', ncc);
[filename pathname] = uiputfile('*.bmp', 'Simpan file citra
watermark hasil ekstraksi channel Blue');
imwrite(W_star_bw,[pathname filename]);

function edit3_Callback(hObject, eventdata, handles)
% hObject    handle to edit3 (see GCBO)
% eventdata  reserved - to be defined in a future version of
MATLAB
% handles    structure with handles and user data (see GUIDATA)

% Hints: get(hObject,'String') returns contents of edit3 as text
%        str2double(get(hObject,'String')) returns contents of
edit3 as a double

% --- Executes during object creation, after setting all
properties.
function edit3_CreateFcn(hObject, eventdata, handles)
% hObject    handle to edit3 (see GCBO)
% eventdata  reserved - to be defined in a future version of
MATLAB
% handles    empty - handles not created until after all
CreateFcns called

% Hint: edit controls usually have a white background on Windows.
%        See ISPC and COMPUTER.
if ispc && isequal(get(hObject,'BackgroundColor'),
get(0,'defaultUicontrolBackgroundColor'))
    set(hObject,'BackgroundColor','white');
end

```

```

function edit4_Callback(hObject, eventdata, handles)
% hObject    handle to edit4 (see GCBO)
% eventdata  reserved - to be defined in a future version of
MATLAB
% handles    structure with handles and user data (see GUIDATA)

% Hints: get(hObject,'String') returns contents of edit4 as text
%        str2double(get(hObject,'String')) returns contents of
edit4 as a double

% --- Executes during object creation, after setting all
properties.
function edit4_CreateFcn(hObject, eventdata, handles)
% hObject    handle to edit4 (see GCBO)
% eventdata  reserved - to be defined in a future version of
MATLAB
% handles    empty - handles not created until after all
CreateFcns called

% Hint: edit controls usually have a white background on Windows.
%        See ISPC and COMPUTER.
if ispc && isequal(get(hObject,'BackgroundColor'),
get(0,'defaultUiControlBackgroundColor'))
    set(hObject,'BackgroundColor','white');
end

function edit5_Callback(hObject, eventdata, handles)
% hObject    handle to edit5 (see GCBO)
% eventdata  reserved - to be defined in a future version of
MATLAB
% handles    structure with handles and user data (see GUIDATA)

% Hints: get(hObject,'String') returns contents of edit5 as text
%        str2double(get(hObject,'String')) returns contents of
edit5 as a double

% --- Executes during object creation, after setting all
properties.
function edit5_CreateFcn(hObject, eventdata, handles)
% hObject    handle to edit5 (see GCBO)
% eventdata  reserved - to be defined in a future version of
MATLAB
% handles    empty - handles not created until after all
CreateFcns called

% Hint: edit controls usually have a white background on Windows.
%        See ISPC and COMPUTER.
if ispc && isequal(get(hObject,'BackgroundColor'),
get(0,'defaultUiControlBackgroundColor'))
    set(hObject,'BackgroundColor','white');
end

```

end

```
function edit6_Callback(hObject, eventdata, handles)
% hObject      handle to edit6 (see GCBO)
% eventdata    reserved - to be defined in a future version of
MATLAB
% handles      structure with handles and user data (see GUIDATA)

% Hints: get(hObject,'String') returns contents of edit6 as text
%         str2double(get(hObject,'String')) returns contents of
edit6 as a double
```

```
% --- Executes during object creation, after setting all
properties.
function edit6_CreateFcn(hObject, eventdata, handles)
% hObject      handle to edit6 (see GCBO)
% eventdata    reserved - to be defined in a future version of
MATLAB
% handles      empty - handles not created until after all
CreateFcns called

% Hint: edit controls usually have a white background on Windows.
%         See ISPC and COMPUTER.
if ispc && isequal(get(hObject,'BackgroundColor'),
get(0,'defaultUiControlBackgroundColor'))
    set(hObject,'BackgroundColor','white');
end
```

```
function edit7_Callback(hObject, eventdata, handles)
% hObject      handle to edit7 (see GCBO)
% eventdata    reserved - to be defined in a future version of
MATLAB
% handles      structure with handles and user data (see GUIDATA)

% Hints: get(hObject,'String') returns contents of edit7 as text
%         str2double(get(hObject,'String')) returns contents of
edit7 as a double
```

```
% --- Executes during object creation, after setting all
properties.
function edit7_CreateFcn(hObject, eventdata, handles)
% hObject      handle to edit7 (see GCBO)
% eventdata    reserved - to be defined in a future version of
MATLAB
% handles      empty - handles not created until after all
CreateFcns called

% Hint: edit controls usually have a white background on Windows.
%         See ISPC and COMPUTER.
```



```
if ispc && isequal(get(hObject,'BackgroundColor'),  
get(0,'defaultUicontrolBackgroundColor'))  
    set(hObject,'BackgroundColor','white');  
end
```