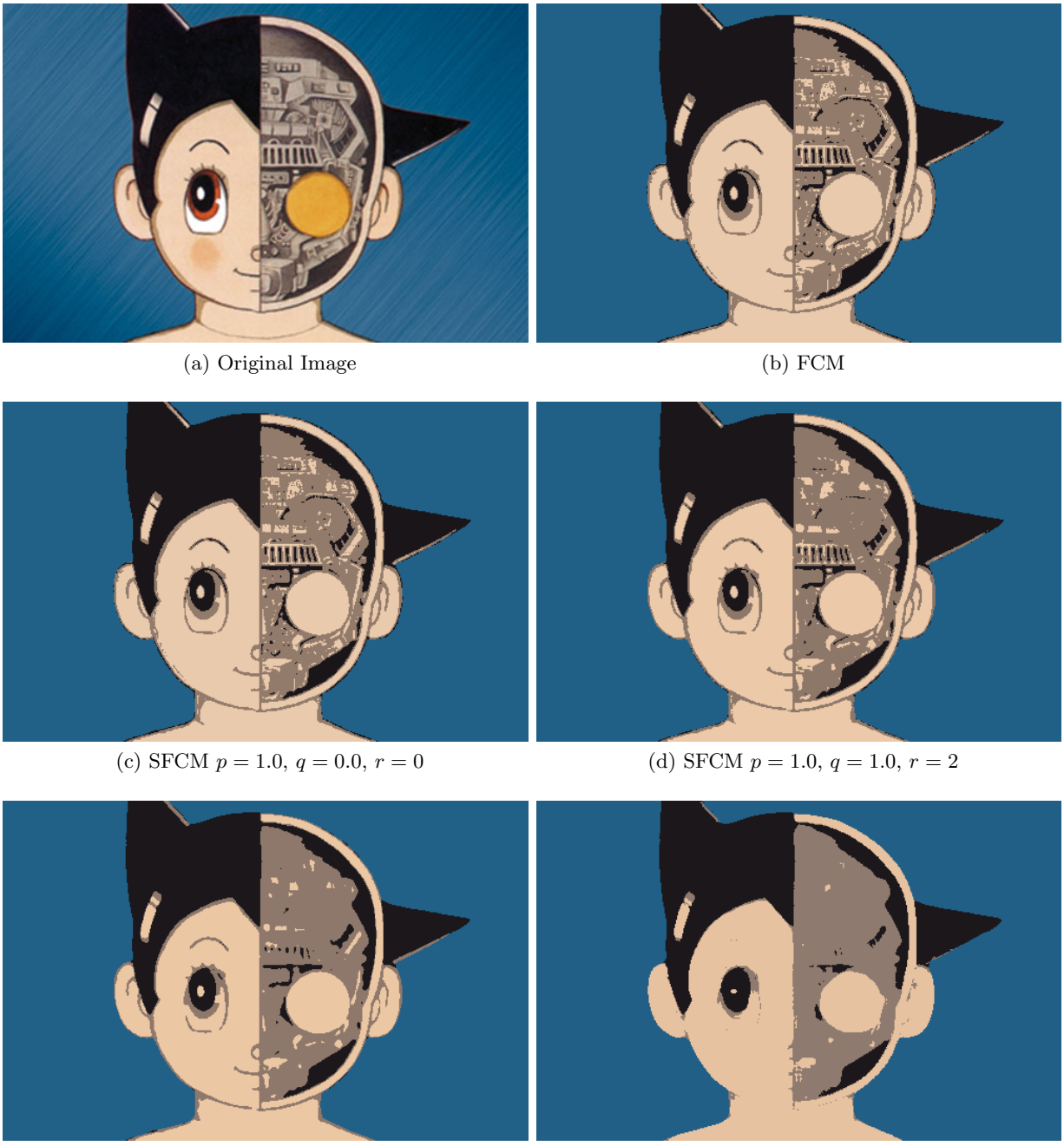


(a) Original Image

(b) FCM

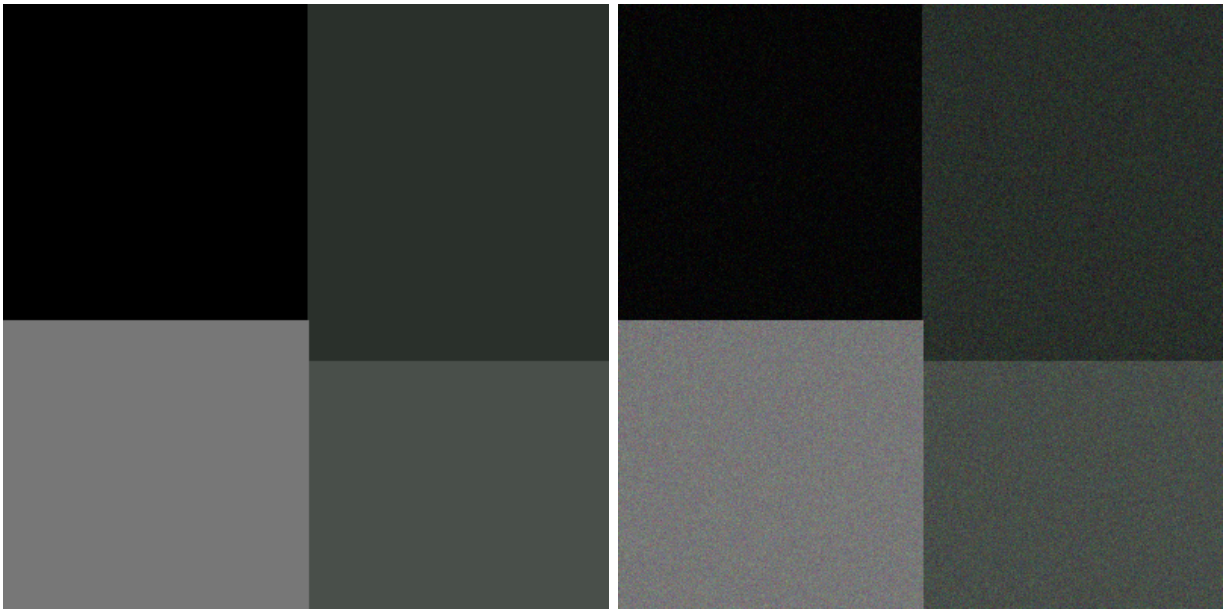
(c) SFCM $p = 1.0$, $q = 0.0$, $r = 0$

(d) SFCM $p = 1.0$, $q = 1.0$, $r = 2$

(e) SFCM $p = 1.0$, $q = 5.0$, $r = 2$

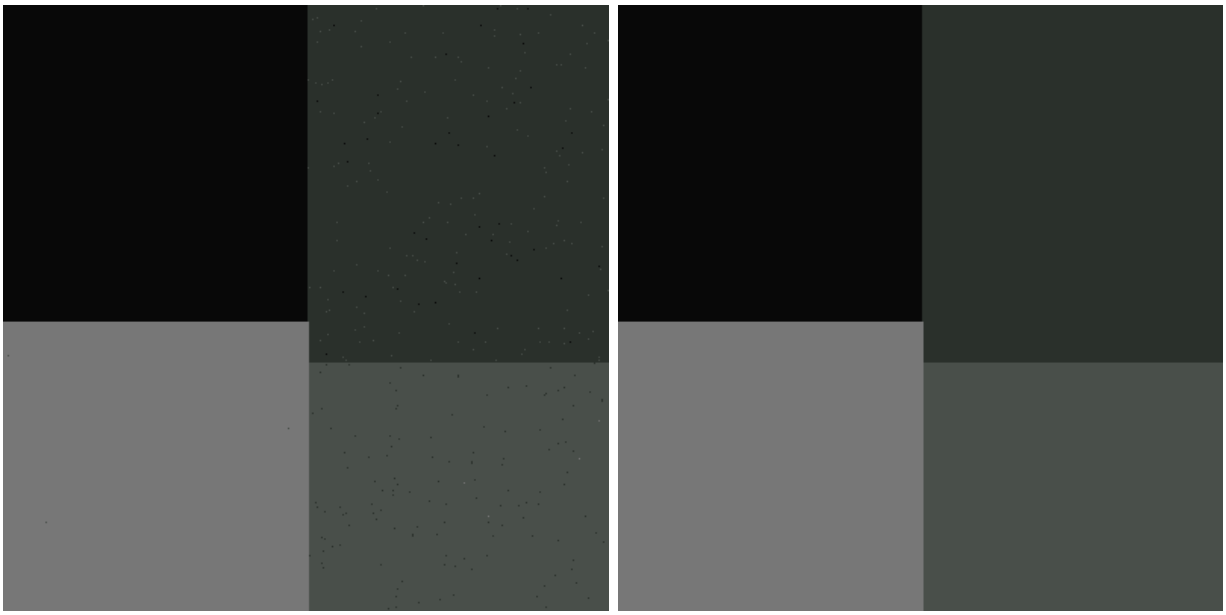
(f) SFCM $p = 1.0$, $q = 5.0$, $r = 5$

Figure 1: Original image (*500x323* pixel) in *(a)*. Clustered image in *(b)* with FCM in 4 clusters, $m = 2.0$, color space: *L*a*b**. Images from *(c)* to *(f)* have been clustered using SFCM in 4 clusters, with $m = 2.0$, color space: *L*a*b** and spatial function h defined as 'likeliest cluster', while p (the membership weight), q (the spatial function weight) and r (the window radius) are varying.



(a) Original Image

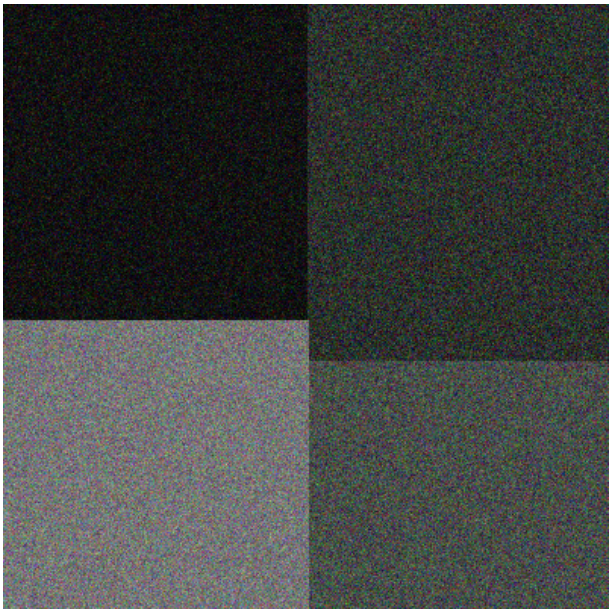
(b) Image with added gaussian noise ($\sigma = 10$)



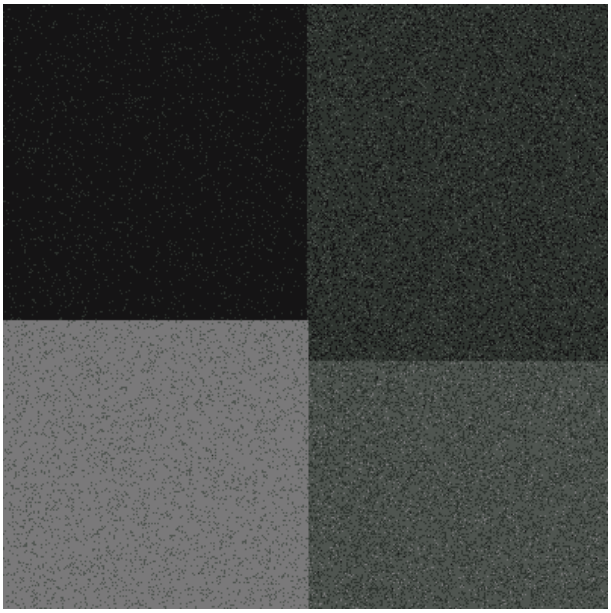
(c) FCM

(d) SFCM $p = 1.0$, $q = 2.0$, $r = 2$

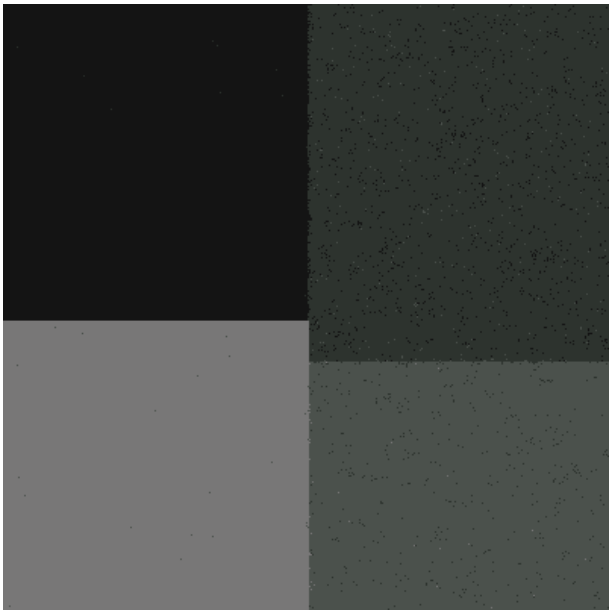
Figure 2: Original synthetic image in *(a)*, to which gaussian noise has been added in *(b)*. Clustered image in *(c)* by FCM in 4 clusters, $m = 2.0$. Clustered image in *(d)* by SFCM in 4 clusters, $m = 2.0$, spatial function h chosen as the likeliest cluster, with parameters $p = 1.0$, $q = 2.0$ ed $r = 2$.



(a) Image with gaussian noise ($\sigma = 25$)



(b) FCM



(c) SFCM $p = 1.0$, $q = 3.0$, $r = 3$

(d) SFCM $p = 1.0$, $q = 6.0$, $r = 6$

Figure 3: Original synthetic image in *(a)* from figure 2, to which gaussian noise has been added in *(a)*. Clustered image in *(b)* by FCM in 4 clusters, $m = 2.0$. Images *(c)* and *(d)* have been clustered by SFCM in 4 clusters, with $m = 2.0$, spatial function h defined as the likeliest cluster, while p, q, r are varying.