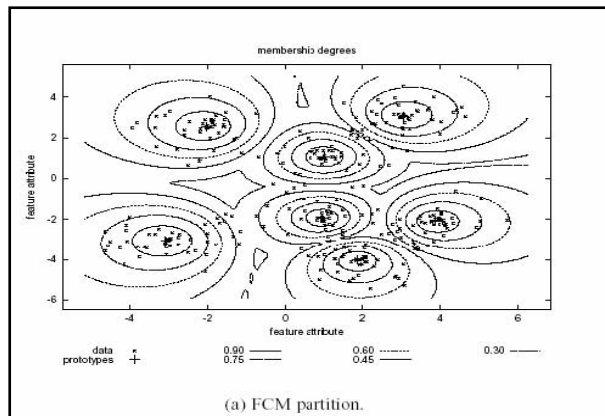cated by contour lines, the maximum over all membership degrees is depicted

Figure 3 shows an example for an FCM clustering with c=7. 8- RLE Algorithm:

now applying the RLE algorithm to each component Y,U, and V. explains this algorithm by used test numeric text.

(a) FCM partition.

Example:100,20,20,20,20,30,40,255,40,40,40,40,40,40,10,10,10

Compressed text :100, # 20 4,30,40,255,# 40 6,10,10,10 9- The Decompression Stage:

1-Retrieve the parameters of original image weight and height the image, and number of the clusters, and value of each cluster. 2-For each components Y,U,V

* Read compressed files with RLE Algorithm then apply decompressed algorithm to produce Y,U,V components.

3-Conversion YUV color space to RGB color space.

10 – The proposed system

The proposed system involved the figure 4, where used the BMP image 24 bit per pixel, read the image with RGB color space and then apply the compression algorithm (the Fuzzy clustering algorithm and then RLE algorithm)on the image after the image from RGB color space to YUV color space ,apply this system on three pictures and comparison the result between them .

The Decompression Stage

Figure 4 the structure of proposed system. ow the execution st ep of our work

11-Case study: 11-1-1 convert to YUV color space Figure 5 explains the image RGB

color space in (a) and image YUV color space in (b).
Figure 5 the image RGB and YUV color space.
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clustering Proce ss R e su lt:

in this stage will apply the FCM on the lenna picture,after making the YUV image where table 1 explains the all parameters before the input to applying the FCM algorithm

In the end of the FCM algorithm the actual number of the clusters is (25) clusters with (22) iterations, as explained in Table 2, (7) clusters have the same value as (192.9709). (14) Clusters have same value as (56.8233),