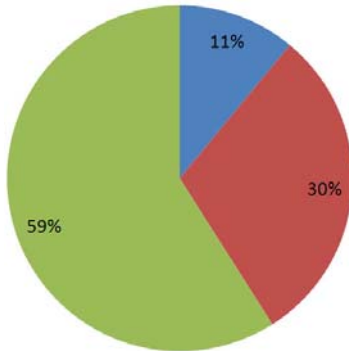


nance mix:

Luma = 30% Red + 59% Green + 11% Blue.



The large percentage of Green and the small percentage of Blue (along with Green being sent twice) help to explain why chroma-keying for video is done against green screens and not blue screens like film.

4- The Fuzzy logic c-means:

In our work analysis, we need to determine the partitioning of the sample data for each explanatory (input) variable into a number of clusters. These clusters have “fuzzy” boundaries, in the sense that each data value belongs to each cluster to some degree or other. Membership is not certain, or “crisp”. Having decided upon the number of such clusters to be used, some procedure is then needed to locate their mid-points (or more generally, their centroids) and to determine the associated membership functions and degrees of membership for the data-points. To this end, Shepherd and Shi (1998) used a

variant of the “fuzzy c-means” (FCM) algorithm. (The latter is sometimes termed the fuzzy k-means algorithm in the literature.) The FCM algorithm is really a generalization of the “hard” c-means algorithm. It appears to date from Ruspini (1970), although some of the underlying concepts were explored by MacQueen (1967). The FCM algorithm is closely associated with such early contributors as Bezdek (1973) and Dunn (1974, 1977), and is widely used in such fields as pattern recognition, for instance [8].

5- RLE Compression:

RLE is a natural candidate for compressing graphical data, a digital image consists of small dots called pixels, each pixel can be either one bit, indicating a black or white dot, or several bits, indicating one of several colors or shades of gray. We assume that the pixels are stored in an array called a bitmap, so the bitmap is the input stream for the image. Pixels are normally arranged in the bitmap in scan lines, so the first bitmap pixel is the dot at the top left corner of the image, and the last pixel is the one at the bottom right corner [9].

Compressing an image using RLE is based on the observation that if we select a pixel in the image at random, there is a good chance that its neighbors will have the same