ASSIGNMENT 13

AIM 1:- Write a matlab program to implement any four colour models.

Code:-

```
clc;
clear all;
close all;
i=imread('balls.jpg');
subplot(3,2,1);
imshow(i);title('Original image');
 i=im2double(i);
 r=i(:,:,1);
 g=i(:,:,2);
 b=i(:,:,3);

c = 1-r;
m = 1-g;
y =1-b;
l1 = min(c,m);
K=min(l1,y);
C = c-K;
M = m-K;
Y = y-K;
CMY=cat(3,C,M,Y);
subplot(3,2,2);
imshow(CMY);title('RGB to CMY Conversion');

ycbcr=rgb2ycbcr(i);
subplot(3,2,3);
imshow(ycbcr);title('RGB to CbCr Conversion');

yiq=(0.299.*r + 0.587.*g + 0.114.*b) + (0.596.*r + -0.274.*g + -
0.321.*b) + (0.211.*r + -0.523.*g + 0.311.*b);
subplot(3,2,4);
imshow(yiq);title('RGB to YIQ Conversion');

yuv=(0.299.*r + 0.587.*g + 0.114.*b) + (-0.147.*r + -0.289.*g +
0.436.*b) + (0.615.*r + -0.515.*g + -0.100.*b);
subplot(3,2,5);
imshow(yuv);title('RGB to YUV Conversion');
```

Output:-

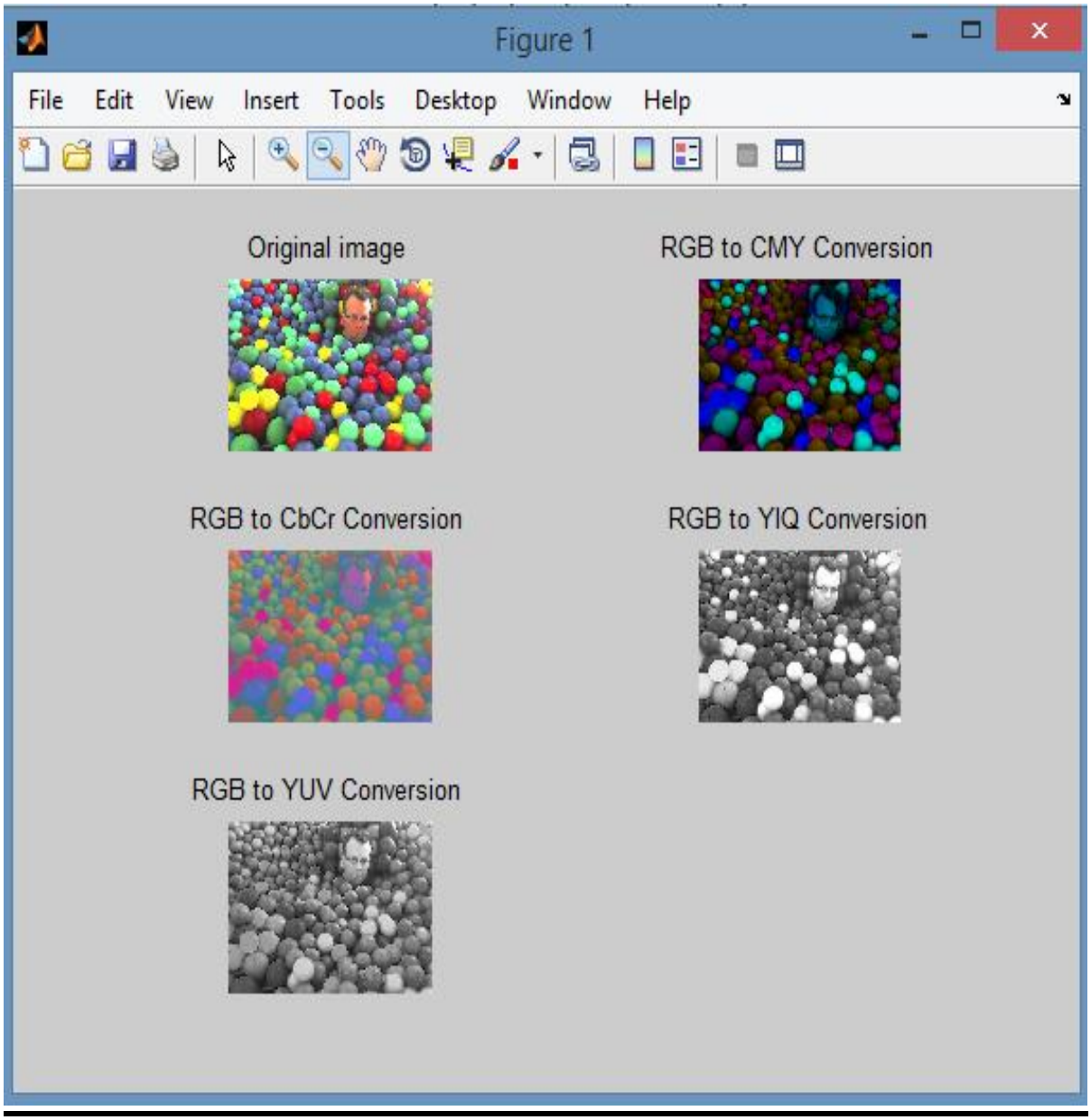
Figure 1
File Edit View Insert Tools Desktop Window Help
Original image
RGB to CMY Conversion
RGB to CbCr Conversion
RGB to YIQ Conversion
RGB to YUV Conversion