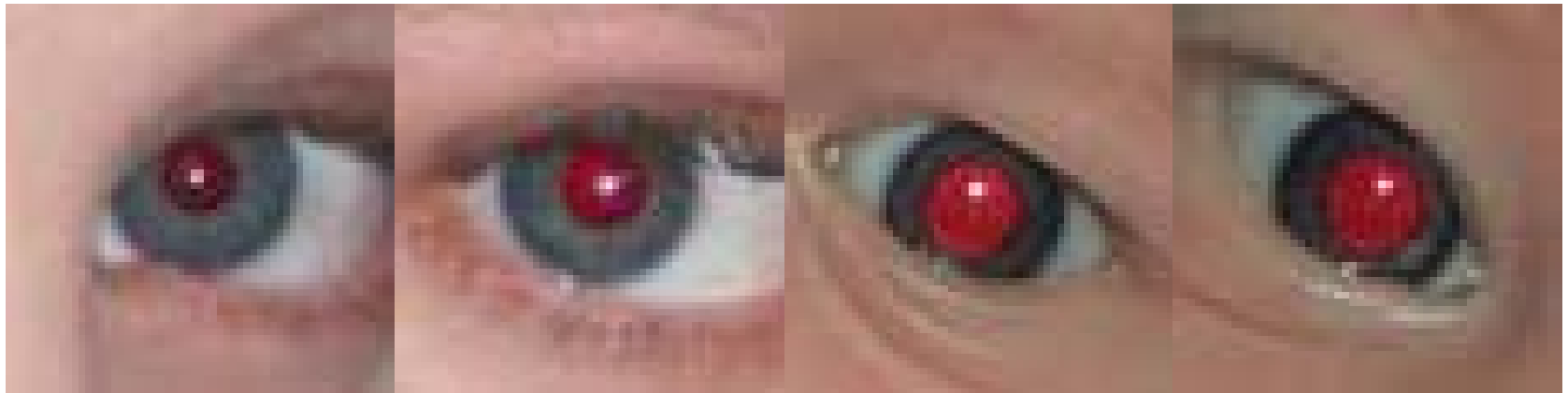


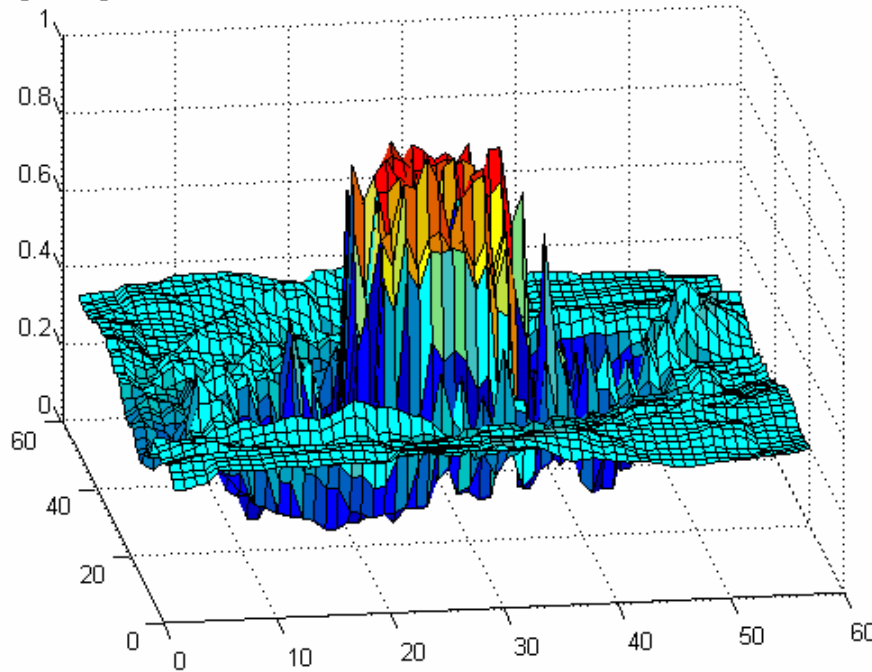
HW#4 Red-eye



red-effect by flashing

Detection

Saturation



$$S = 1 - \frac{3}{(R + G + B)} [\min(R, G, B)]$$

If

$$S_{(x,y)} > \lambda \quad (\lambda : \text{threshold})$$

then

$$I_{(x,y)} \in \text{red-eye region}$$

I : image

$I_{(x,y)}$: the color at pixel (x, y) of the image

Correction

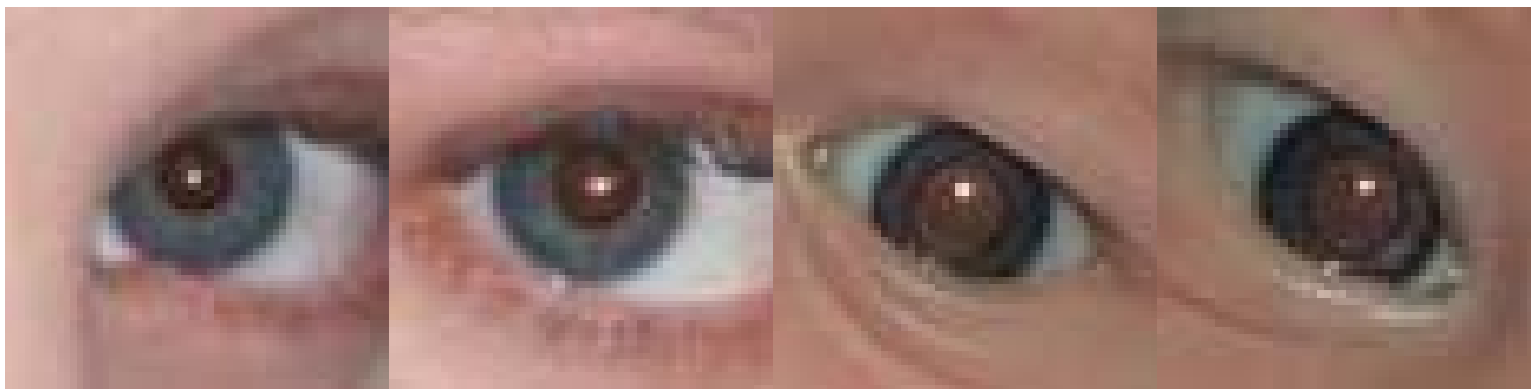
For $I_{(x,y)} \in$ red-eye region

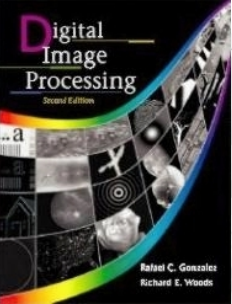
$$R_{correct} = C_R \times mean(R, G, B)$$

$$G_{correct} = C_G \times mean(R, G, B)$$

$$B_{correct} = C_B \times mean(R, G, B)$$

C_R C_G C_B are the coefficients of R,G,B





Red-eye

- 繳交作業需包含報告(課堂上繳交)及程式(upload)
 1. 報告內容至少要有前言、研究方法、結果、結論或討論。
 2. 程式上傳前請確定能 run，並附上說明。
- 使用語言：C，C++
- 繳交方式:FTP上傳至140.114.27.115 ID:94IP PASSWD:lab708
 - 建立自己的學號目錄:例/u93XXXX/.../HW4/version X/
X=1,2,3...
- 評分標準
 - 1.效果(實際測試效果,非紅眼區影響程度)(70%)
 - 2.報告(30%)
- 繳交期限:6/30
- 切勿抄襲