**COMP 9074**

**MACHINE VISION**

**LAB 3 – Chroma key**



**BACKGROUND.**

In Lecture 3 we looked at chroma key segmentation. In this exercise you will analyse a picture taken in front of a green background and replace the background with another image. On Canvas you will find the input image **Girl_in_front_of_a_green_background.jpg** and the target image **Tour_Eiffel.jpg**.

**TASK 1**

Load and display the input image and the target image. Convert the input image into HSV colour representation and extract the Hue channel. Also display the Hue channel image.

**TASK 2**

Calculate and display the histogram of the Hue channel image to determine the thresholds for removing the green background. Apply the thresholds to the Hue channel image to calculate a binary mask of the foreground. Display the foreground mask.

**TASK 3**

Cut out the foreground from the input image and resize the cut-out to 300x200 pixels. Replace the pixels of the target image with the cut-out, so that the foreground appears at the bottom in the middle of the target image. Display the result.