# Image Signal Processing
# Lab-2

## Occlusion detection

Given are two aerial images (`IMG1.png`, `IMG2.png`) of an airport parking bay. These images were captured using two cameras placed at different locations and at different instants of time but overlooking the same area. It is known that the images are related by an in-plane rotation and translation.

The following point correspondences are given:

| Correspondence | `IMG1` $(x, y)$ | `IMG2` $(x, y)$ |
|---|---|---|
| 1 | $(29, 124)$ | $(93, 248)$ |
| 2 | $(157, 372)$ | $(328, 399)$ |

Determine the changes in `IMG2` with respect to `IMG1`.

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NOTE: Use bilinear interpolation during target-to-source mapping.

NOTE: Co-ordinate convention followed to represent the above points (same as the standard Python convention),

1. Origin (0,0) at top left corner of the image
2. $x$-axis = along the rows of the image
3. $y$-axis = along the columns of the image