Description & Logistics

• **Unit Coordinator**: Prof. Eduardo Nebot (ACFR)
• **Lecturers**: Dr. Thierry Peynot & Christopher Brunner (ACFR)
• **Tutor**: Christopher Brunner (ACFR)

• **Lectures**: 9:00-11:00am on Tuesdays, Mech. TR3
• **Tutorials**: 2:00-5:00pm on Fridays, PC Lab, S322
• **Office Hours**: by email appointment

• Slides and info available on the webpage (can be useful to bring for the lectures and labs)
• **E-mail**: amme4710@acfr.usyd.edu.au
Description & Logistics

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- **Lecturers**: Dr. Thierry Peynot & Christopher Brunner (ACFR)
- **Tutor**: Christopher Brunner (ACFR)

- **Contact Information**:

<table>
<thead>
<tr>
<th>Position</th>
<th>Name</th>
<th>Email</th>
<th>Telephone</th>
<th>Office</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lecturer</td>
<td>Thierry Peynot</td>
<td><a href="mailto:tpeynot@acfr.usyd.edu.au">tpeynot@acfr.usyd.edu.au</a></td>
<td>9036 9193</td>
<td>ACFR, J04 Room 201</td>
</tr>
<tr>
<td>Lecturer &amp; Tutor</td>
<td>Christopher Brunner</td>
<td><a href="mailto:brunner.university@gmail.com">brunner.university@gmail.com</a></td>
<td>9351 7154</td>
<td>ACFR, J04 Level 1</td>
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</tbody>
</table>

NB: use the **UoS email** for any matter that may concern the class.
Syllabus

1. Fundamentals of Image Processing
   a) Introduction to Image Processing
   b) Digital Image Fundamentals
   c) Intensity Transformations and Spatial Filtering
   d) Filtering in the Frequency Domain
   e) Colour Image Processing
   f) Image Restoration and Reconstruction
   g) Introduction to Stereo-vision

2. Computer Vision
   a) Image Features
   b) Segmentation
   c) Image Stitching
   d) Graphical Models
   e) Recognition
   f) Motion Estimation
Evaluation

• Big Project (Small Teams) – Total: 60%
  – Progress Report (10%)
  – Project Presentation with individual components (20%)
  – Team Report with individual components (30%)

• 5 Marked Tutorials – Total: 40%
  – Individual
  – Report handed in by the following lecture
## UoS Program / Schedule

### (Indicative) 2013 Program

<table>
<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>Content</th>
<th>Tutorial</th>
<th>Assignment Due</th>
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<tbody>
<tr>
<td>1</td>
<td>30-July</td>
<td>Introduction / Digital Image Fundamentals</td>
<td>TP</td>
<td>#0</td>
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<tr>
<td>2</td>
<td>6-Aug</td>
<td>Intensity Transformations and Spatial Filtering</td>
<td>TP</td>
<td>#1</td>
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<tr>
<td>3</td>
<td>13-Aug</td>
<td>Filtering in the Frequency Domain</td>
<td>TP</td>
<td>#2</td>
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<td>4</td>
<td>20-Aug</td>
<td>Colour IP</td>
<td>TP</td>
<td>#3</td>
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<tr>
<td>5</td>
<td>27-Aug</td>
<td>Image Features</td>
<td>CB</td>
<td>#4</td>
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<tr>
<td>6</td>
<td>3-Sep</td>
<td>Segmentation</td>
<td>CB</td>
<td>#5</td>
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<tr>
<td>7</td>
<td>10-Sept</td>
<td>Image Stitching</td>
<td>CB</td>
<td>#6</td>
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<tr>
<td>8</td>
<td>17-Sept</td>
<td>Introduction to stereo-vision</td>
<td>TP</td>
<td>#7</td>
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<td>9</td>
<td>24-Sept</td>
<td>Recognition</td>
<td>CB</td>
<td>#8</td>
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<td></td>
<td>1-Oct</td>
<td>Break</td>
<td></td>
<td></td>
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<tr>
<td>10</td>
<td>8-Oct</td>
<td>Graphical Models</td>
<td>CB</td>
<td>-</td>
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<td>11</td>
<td>15-Oct</td>
<td>Recognition (cont.)</td>
<td>CB</td>
<td>#9</td>
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<td>12</td>
<td>22-Oct</td>
<td>Image Restoration</td>
<td>TP</td>
<td>(oral)</td>
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<td>13</td>
<td>29-Oct</td>
<td>Motion Estimation</td>
<td>CB</td>
<td>#10</td>
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Main References


