2012 IEEE International Conference on Multimedia and Expo

ICME 2012

9th – 13th July, 2012
Melbourne, Australia

SPONSORED BY

Overall Meeting Sponsors:

Corporate Sponsors:

Corporate Sponsors:

University Sponsors:

NON DISCRIMINATION POLICY

IEEE is committed to the principle that all persons shall have equal access to programs, facilities, services, and employment without regard to personal characteristics not related to ability, performance, or qualifications as determined by IEEE policy and/or applicable laws. For more information on the IEEE policy visit, http://www.ieee.org/about/corporate/governance/p9-26.html?WT.mc_id=hpf_pol
PRPGRAM CONTENTS

SCHEDULE AT A GLANCE ........................................ 4
REGISTRATION ON-SITE ..................................... 10
GENERAL INFORMATION ..................................... 11
GENERAL CHAIRS MESSAGE ............................... 13
TECHNICAL PROGRAM CHAIRS MESSAGE ............ 16
ORGANIZING COMMITTEE ................................... 19
STEERING COMMITTEE ....................................... 21
TRACK CHAIRS .................................................. 22
SOCIAL EVENTS .................................................. 23
TECHNICAL COMMITTEE MEETINGS .................... 24
KEYNOTE TALKS ............................................... 25
RESEARCH OVEWVIEW TALKS .............................. 29
TIME MACHINE EXPERT TALKS ............................ 35
TECHNICAL PROGRAMS ...................................... 43
AUTHOR INDEX .................................................. 153
REGIONAL MAP ............................................... 163
CONVENTION CENTER MAP ................................. 164
EMERGENCY PROCEDURE ................................. 166
Schedule At A Glance

Monday, 9 July
08:30 – 10:20  Workshops
09:00 – 10:20  Tutorials
10:20 – 10:50  Morning Tea
10:50 – 12:30  Tutorials & Workshops
12:30 – 13:30  Lunch *
13:30 – 15:10  Tutorials & Workshops
15:10 – 15:40  Afternoon Tea
15:40 – 18:00  Workshops
15:40 – 17:00  Tutorials
18:15 – 20:00  ICME 2012 Welcome Reception (see page 23)

Tuesday, 10 July
08:30 – 09:00  Opening remarks
09:00 – 10:00  Keynote Speech: Henry Fuchs
10:00 – 10:15  Elevator Pitch Session (best paper candidates)
10:15 – 10:40  Morning Tea
10:40 – 12:20  Technical Session
12:20 – 13:30  Lunch *
13:30 – 15:10  Technical Session
15:10 – 15:40  Afternoon Tea
15:40 – 16:40  Research Overview: Hong Tan
16:40 – 18:30  Technical Session

Wednesday, 11 July
09:00 – 10:00  Keynote Speech: Chang Wen Chen
10:00 – 10:05  Student Travel Grant Outcome Announcement
10:05 – 10:30  Morning Tea
10:30 – 12:30  Time Machine Plenary Session
12:30 – 13:40  Lunch *
13:40 – 15:00  Technical Session
15:00 – 15:30  Afternoon Tea
15:30 – 16:30  Research Overview: Kristen Grauman
16:30 – 18:00  Technical Session
19:00 – 22:00  ICME 2012 Conference Banquet
                           Best Papers and Best Student Papers Outcome
                           Announcement (see page 23)

Thursday, 12 July
09:00 – 10:00  Keynote Speech: Baining Guo
10:00 – 10:30  Morning Tea
10:30 – 11:50  Technical Session
11:50 – 13:10  Lunch *
13:10 – 14:30  Technical Session
14:30 – 15:00  Afternoon Tea
15:00 – 16:00  Research Overview: David Taubman
16:00 – 17:30  Technical Session

**Monday, 13 July**

08:30 – 10:20  Workshops
10:20 – 10:50  Morning Tea
10:50 – 12:30  Workshops
12:30 – 13:30  Lunch *
13:30 – 15:10  Workshops
15:10 – 15:40  Afternoon Tea
15:40 – 18:10  Workshops

* Lunch is not provided for by ICME 2012
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Opening Ceremony</td>
<td>Keynote: Henry Fuchs</td>
<td>Elevator Pitch Session (60-second highlight of each best paper candidate)</td>
<td>Coffee Break</td>
<td>OT1: Multimedia Content Analysis, understanding and Retrieval</td>
<td>OT2: Special session - online communication</td>
<td>OT4: 3D Analysis &amp; Scene Synthesis</td>
<td>Afternoon Tea</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>OT3: Media Coding &amp; Transcoding</td>
<td>OT5: Multimedia Content Analysis, understanding and Retrieval</td>
<td>OT6: Image / Video Processing</td>
<td>Demo Session (Room: 102)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Chairs: Zhen Wen, Zicheng Liu</td>
<td>OT7: Media Streaming</td>
<td>Chairs: Tokunbo Ogunfunmi, Lixin Fan</td>
<td>Poster Session: PT1, Chair: Xin-Jing Wang, Room: 103</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Room: 103</td>
<td>Lunch</td>
<td>Room: 104</td>
<td>PT2, Chair: Ruigang Yang, Room: 103</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>OT8: Multimedia Security and Privacy</td>
<td>Chairs: Patrizio Campisi</td>
<td>Room: 102</td>
<td>PT3, Chair: Patrizio Campisi, Room: 104</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Room: 104</td>
<td>OT9: Image / Video Processing</td>
<td>Chairs: Gene Cheung, Room: 104</td>
<td>PT4, Chair: Gene Cheung, Room: 104</td>
</tr>
</tbody>
</table>

Main Conference Schedule
<table>
<thead>
<tr>
<th>Time/Day</th>
<th>11th July 2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>9:00-10:00</td>
<td>Keynote: Chang Wen Chen</td>
</tr>
<tr>
<td>10:00-10:05</td>
<td>Coffee Break</td>
</tr>
<tr>
<td>10:05-10:30</td>
<td>Time Machine Plenary Session</td>
</tr>
<tr>
<td>10:30-11:40</td>
<td>Lunch</td>
</tr>
<tr>
<td>11:40-12:30</td>
<td>OW1: Multimedia Content Analysis, understanding and Retrieval III Chairs: Zicheng Liu Room: 103</td>
</tr>
<tr>
<td>12:30-13:40</td>
<td>OW2: Acoustic Signal Analysis &amp; Processing Chairs: Julien Epps Room: 101</td>
</tr>
<tr>
<td>13:40-15:00</td>
<td>OW3: Media coding &amp; transcoding II Chairs: Manzur Murshed, Xiaoyan Sun Room: 104</td>
</tr>
<tr>
<td>15:00-15:30</td>
<td>OW4: Special session - Perceptual Visual Signal Coding and Display Chairs: Henry Wu, Anil Fernando Room: 102</td>
</tr>
<tr>
<td>15:30-16:30</td>
<td>Afternoon Tea</td>
</tr>
<tr>
<td>16:30-18:00</td>
<td>Research Overview: Kristen Grauman</td>
</tr>
<tr>
<td>18:00-22:00</td>
<td>Poster Session: PW1, Chair: Roland Goede, Room: 103 PW2, Chair: Xavier Anguera, Room: 103 PW3, Chair: Ce Zhu, Room: 104 PW4, Chair: Chi-Wen Lin, Room: 104</td>
</tr>
<tr>
<td>19:00-22:00</td>
<td>ICME 2012 Conference Banquet in Melbourne Casino function hall</td>
</tr>
<tr>
<td></td>
<td>Best Papers and Best Student Papers Outcome Announcement</td>
</tr>
<tr>
<td>Time/Day</td>
<td>Keynote: Baining Guo</td>
</tr>
<tr>
<td>---------------</td>
<td>-------------------------------------</td>
</tr>
<tr>
<td>12th July 2012</td>
<td>Morning, Tea</td>
</tr>
<tr>
<td>9:00-10:00</td>
<td>OH1: Multimedia Content Analysis, understanding and Retrieval IV Chairs: Liexing Xie, Mei-Ling Shyu</td>
</tr>
<tr>
<td>10:00-11:30</td>
<td>OH2: Multimedia System and Applications Chairs: Gary Chan, Jeroen Vendrig</td>
</tr>
<tr>
<td>11:30-13:10</td>
<td>OH3: Multimedia Content Analysis, understanding and Retrieval V Chairs: Tao Mei, Jingdong Wang</td>
</tr>
<tr>
<td>13:10-14:30</td>
<td>OH4: Multimedia Perceptual Assessment and Signal Processing Chairs: Ebrahimi Toudaj, Shaoyi Chen</td>
</tr>
<tr>
<td>14:30-15:00</td>
<td>OH5: Multimedia Signal Analysis, understanding and Retrieval V Chairs: Deepu Rajan</td>
</tr>
<tr>
<td>15:00-16:00</td>
<td>OH6: Multimedia Content Analysis, understanding and Retrieval V Chairs: Tao Mei, Jingdong Wang</td>
</tr>
<tr>
<td>16:00-17:30</td>
<td>OH7: Media Coding and Delivery Chairs: Manzur Mushed, Gary Chan</td>
</tr>
<tr>
<td></td>
<td>OH8: Multimedia Applications Chairs: Jingdong Wang, Martha Larson</td>
</tr>
<tr>
<td></td>
<td>OH9: Multimedia Perceptual Assessment and Signal Processing Chairs: Ebrahimi Toudaj, Shaoyi Chen</td>
</tr>
<tr>
<td></td>
<td>OH10: Multimedia Content Analysis, understanding and Retrieval V Chairs: Tao Mei, Jingdong Wang</td>
</tr>
<tr>
<td></td>
<td>OH11: Multimedia System and Applications Chairs: Gary Chan, Jeroen Vendrig</td>
</tr>
<tr>
<td></td>
<td>OH12: Multimedia Perceptual Assessment and Signal Processing Chairs: Ebrahimi Toudaj, Shaoyi Chen</td>
</tr>
<tr>
<td></td>
<td>OH13: Multimedia Content Analysis, understanding and Retrieval V Chairs: Tao Mei, Jingdong Wang</td>
</tr>
<tr>
<td></td>
<td>OH14: Multimedia System and Applications Chairs: Gary Chan, Jeroen Vendrig</td>
</tr>
<tr>
<td></td>
<td>OH15: Multimedia Perceptual Assessment and Signal Processing Chairs: Ebrahimi Toudaj, Shaoyi Chen</td>
</tr>
</tbody>
</table>
## Workshops/Tutorials Schedule

<table>
<thead>
<tr>
<th>9-Jul</th>
<th>Opening</th>
<th>Opening</th>
<th>Opening</th>
<th>Opening</th>
<th>Opening</th>
<th>Opening</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:30-8:40</td>
<td>WM1</td>
<td>WM2</td>
<td>WM3</td>
<td>WM4</td>
<td>WM5</td>
<td>WM6</td>
</tr>
<tr>
<td></td>
<td>MUST-EH</td>
<td>SMC</td>
<td>HotMM</td>
<td>MUST-EH</td>
<td>SMC</td>
<td>HotMM</td>
</tr>
<tr>
<td></td>
<td>Room 101</td>
<td>Room 103</td>
<td>Room 104</td>
<td>Room 101</td>
<td>Room 103</td>
<td>Room 104</td>
</tr>
<tr>
<td>8:40-10:20</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>tutorials</td>
<td>WM7</td>
<td>WM8</td>
<td>WM9</td>
<td>WM10</td>
<td>WM11</td>
<td>WM12</td>
</tr>
<tr>
<td>start from</td>
<td>3D CIA</td>
<td>SMC</td>
<td>TEMPEKU</td>
<td>3D CIA</td>
<td>SMC</td>
<td>TEMPEKU</td>
</tr>
<tr>
<td>9:00</td>
<td>Room 101</td>
<td>Room 103</td>
<td>Room 104</td>
<td>Room 101</td>
<td>Room 103</td>
<td>Room 104</td>
</tr>
<tr>
<td>10:20-10:50</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WM13</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EMSA</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Room 103</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10:50-12:30</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WM14</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EMSA</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Room 103</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12:30-13:30</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WM15</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CLCAT</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Room 101</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13:30-15:10</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WM16</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CLCAT</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Room 102</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15:10-15:40</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WM17</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CLCAT</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Room 102</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15:40-17:20</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WM18</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EMSA</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Room 103</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17:20-17:50</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>best paper</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>discussion</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>13-Jul</th>
<th>Opening</th>
<th>Opening</th>
<th>Opening</th>
<th>Opening</th>
<th>Opening</th>
<th>Opening</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:30-8:40</td>
<td>WF1</td>
<td>WF2</td>
<td>WF3</td>
<td>WF4</td>
<td>WF5</td>
<td>WF6</td>
</tr>
<tr>
<td></td>
<td>EMSA</td>
<td>Hot3D</td>
<td>CLCAT</td>
<td>A-LSMM</td>
<td>HFC3D</td>
<td>AAMS-PS</td>
</tr>
<tr>
<td></td>
<td>Room 103</td>
<td>Room 101</td>
<td>Room 102</td>
<td>Room 101</td>
<td>Room 104</td>
<td>Room 112</td>
</tr>
<tr>
<td>8:40-10:20</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WF7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EMSA</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Room 103</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10:20-10:50</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WF8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hot3D</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Room 101</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10:50-12:30</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WF9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CLCAT</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Room 102</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12:30-13:30</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WF10</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A-LSMM</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Room 111</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13:30-15:10</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WF11</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HFC3D</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Room 104</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15:10-15:40</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WF12</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AAMS-PS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Room 112</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15:40-17:00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WF13</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EMSA</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Room 103</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17:00-17:10</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WF14</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AIME</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Room 101</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17:10-18:10</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WF15</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CLCAT</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Room 102</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18:10-18:10</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WF16</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- 9 -
Registration on-site

Registration

Registration is located in the foyer area in front of meeting rooms: 101-104.

Registration hours are as follows:

- Monday, 9 July 2012  8:00 --18:00
- Tuesday, 10 July 2012  8:00 --17:30
- Wednesday, 11 July 2012  8:30 --17:30
- Thursday, 12 July 2012  8:30 --17:30
- Friday, 13 July 2012  8:30 --16:30
General Information

Internet Access
Wifi will be free available for all attendees. In order to gain access, please contact the registration desk

Notice for Oral Presentation Speakers
For oral presentations, speakers need to give session chairs their electronic presentation slides (USB or CD) before the technical session

Morning & Afternoon Tea breaks
All tea breaks will be served in the foyer area of the front of meeting rooms 102, 103 and 104.

Language
*The language* of the full paper and the presentation is *English*

Electricity
The electricity voltage in Australia is 220-240 volts, AC 50 Hz with 3-pin power outlets. If your equipment requires different voltage, you will need an electrical transformer.

How to get Melbourne Convention and Exhibition Centre
The Melbourne Convention and Exhibition Center is located on the banks of the Yarra River, only a short walk from Melbourne's central business district, and a 20-minute drive to Melbourne Airport connects MCEC to the rest of Australia and the world.

Arriving by Taxi
For the Convention Centre ask driver to drop off at Convention Centre Place, next to the Hilton South Wharf Hotel.

Arriving by Tram
Tram numbers 96, 112 and 109 travel down Spencer/Clarendon streets and stop opposite the Clarendon Street entrance of the MCEC.

Tram numbers 48 and 70 stop at the end of Flinders Street. Walk towards the Yarra River, across the new pedestrian bridge.

Arriving by Train
Take the train to Southern Cross Station. Tram numbers 96, 109 and 112 travel past Southern Cross Station down Spencer/Clarendon Streets and stop opposite the MCEC.

Arriving by Bus
The SkyBus transports visitors direct from Melbourne Airport to Southern Cross Station.

MCEC is a 10-minute walk from the station or catch tram 96 which stops opposite the Clarendon Street entrance of MCEC. Bus route 238 operates to and from Southern Cross Station to Convention Centre Place between the hours of 10am - 3pm, Monday to Friday. The coach pick-u/drop-off point is coach bay 1, Convention Centre Place (closest to DFO South Wharf). For timetable information, visit http://www.wilsonparking.com.au/go/wilson-car-parks/vic/melbourne-exhibition-centre

Parking

Please check the conference web site for the most current information:
http://www.icme2012.org
On behalf of the Organizing Committee, it is our great pleasure to welcome you to Melbourne, Australia, and the IEEE International Conference on Multimedia and Expo (ICME), July 9-13, 2012. ICME is sponsored by the IEEE Signal Processing Society, Circuits and Systems Society, Computer Society, and Communications Society. ICME is the premier forum for presentation in multimedia systems research, drawing recent, eminent contributions from academic and industrial institutions alike.

ICME 2012 is the thirteenth in the series of ICME conferences that has been held annually since 2000, in various cities throughout the world. The success of this conference would not have been possible without the generous help of sponsors. Paper prizes and Student Travel Grants are sponsored by the National Information and Communications Technology Australia (NICTA), Microsoft Research, IBM Research, Canon Information Systems Research Australia (CiSRA), and Advanced Analytics Institute (AAI) at the University of Technology, Sydney (UTS).

ICME 2012 features a new plenary session – Time Machine! The session consists of a series of expert presentations that re-introduce ideas published "before their time" and, as a result, their impact has not yet been fully realized. ICME 2012 also has outstanding lectures including keynote lectures and research overviews:

**Keynote Speakers**

"Toward Transparent Tele-presence Systems"
Prof. Henry Fuchs, University of North Carolina at Chapel Hill, USA

"Mobile Multimedia Meet Cloud: Challenges and Future Directions"
Prof. Chang Wen Chen, State University of New York at Buffalo, USA

“The Future of Natural User Interface”
Dr. Baining Guo, Microsoft Research Asia, China
"Focusing Human Attention on the "Right" Visual Data"
Assistant Prof. Kristen Grauman, University of Texas at Austin, USA

"Haptics and its Application in Multimodal User Interfaces"
Prof. Hong Z. Tan, Microsoft Research Asia, China & Purdue University, USA

"Scalable Video Compression"
Prof. David Taubman, the University of New South Wales, Australia

ICME 2012 will offer several paper prizes, including Best Paper Award, Best Student Paper Award, and Best Demo Award.

We would like to express our sincere gratitude to Prof. Jianfei Cai (Nanyang Technological University, Singapore) for his invaluable service as Technical Program Coordination. We would also like to extend our appreciation to the Program Chairs (Jianfei Cai, Nanyang Technological University, Singapore; Alan Hanjalic, Delft University of Technology, The Netherlands; Enrico Magli, Politecnico di Torino Italy; Mark Pickering, The University of New South Wales, Australia; Gerald Friedland, International Computer Science Institute, USA; and Xian-Sheng Hua, Microsoft, USA). We would also like to thank the members of the program committee and reviewers whose invaluable effort and dedication led to the high-quality technical program and great success of ICME 2012.

Special thanks also go to the Local Arrangement and Finance Chairs, Prof. Henry Wu and Dr. Qiang Wu, for their tremendous support; Workshop Chairs, Dr. Jorge Caviedes and Dr. Tao Mei, for their outstanding effort in organizing the workshops; Plenary Chairs, Dr. Zhengyou Zhang and Dr. John Apostolopoulos, for forming an outstanding keynote and research overview lecture program; Innovation and Demo Chairs, Dr. Martha Larson and Dr. Mercan Topkara, for their great effort in establishing the new plenary session – Time Machine, Tutorial Chairs, Dr. Yen Kuang Chen and Prof. Shuicheng Yan, Special Session Chairs, Prof. Pascal Frossard and Dr. Zhen Wen, Award Chairs Prof. Manzur Murshed and Dr. Julien Epps, as well as all others who contributed to promotion, local arrangement and registration.

We would like to thank the ICME Steering Committee, especially the former and current ICME Steering Committee Chairs, Profs. Wenjin Zeng and Chang Wen Chen, for their support and guidance. We also like to thank the support of the IEEE Transactions on Multimedia Steering Committee and Editorial Board.
We would finally like to express our sincere appreciation to all of the authors and attendees for their contributions to ICME 2012. We are certain that you will value your participation in the conference and workshops, and hope you enjoy your stay in Melbourne.

**General Chairs**

Associate Professor Jian Zhang, University of Technology, Sydney, Australia
Professor Dan Schonfeld, University of Illinois at Chicago, USA
Professor David Dagan Feng, University of Sydney, Australia
On behalf of the ICME 2012 Technical Program Committee, we warmly welcome you to Melbourne, Australia. ICME has been a flagship international conference for the presentation of novel and fundamental research advances in the field of Multimedia since 2000. It is sponsored by four IEEE societies (IEEE Signal Processing Society, IEEE Communication Society, IEEE Circuit and System Society and IEEE Computer Society), and ICME 2012 is the 13th event.

During the main conference (Jul. 10-12, 2012), the ICME 2012 daily technical program will start with a keynote talk delivered by a world class scientist. At the end of the keynote, a number of papers which are best paper award candidates will be highlighted. Four parallel oral sessions will be presented in the morning, and four additional parallel oral sessions will be presented in the early afternoon. Then, a research overview plenary session will run right after the afternoon tea break. We have designed the program in such a way that ICME audience will not miss the keynotes, overview talks and the plenary session, and can always find a high quality talk of interest at the parallel oral sessions. In addition, a 1.5~2 hour session is held in each afternoon with poster presentations and demos. Each oral paper is also provided with an additional poster presentation slot so that authors can have ample opportunity to interact with audience.

ICME 2012 will give FIVE awards including the best paper award, the best paper runner-up award, the best student paper award, the best student paper runner up award and the best demo award. The awards will be determined by the award selection committee based on the technical merits of the papers and the on-site presentations.
All the awards will be announced on Wed at the conference banquet. ICME 2012 will also hold two workshop days on Jul. 9 and Jul. 13, 2012, together with some high-quality tutorials offered to the registered attendees.

This year, we are pleased to report a strong technical program with exceptional quality. ICME 2012 Main Program has received 609 submissions. Lead by 6 Program Chairs and 18 Track Chairs, we have conducted the paper review in a double-blind manner with several aspects aimed to achieve a very rigorous review process, including author rebuttal, review discussion, meta-review and within-track discussions and cross-track discussions. Almost all papers have received 3 independent reviews, with 78% of the paper receiving 4 or more reviews. These reviews served as basis to select the 184 papers accepted into the main conference, a 30% overall acceptance rate. Out of the 184 accepted papers, top review scores papers are selected for oral presentation. In particular, the oral paper sessions consist of 79 accepted papers and 9 special session papers, corresponding to a 13% (14.4% if including special session papers) acception rate. A selected set of high quality ICME 2012 papers will also be invited to submit an extended version of the paper to be reviewed for acceptance into a special issue of IEEE Trans. on Multimedia.

In addition, ICME 2012 has 12 associated workshops, which have received a total of 174 submissions with 114 accepted papers, a 65% overall acceptance rate. ICME 2012 also has a separate demo program, which has accepted 8 demo proposals.

The technical program of ICME 2012 would not have been possible without the dedicated effort of volunteers of the entire ICME 2012 technical program committee and the organization committee. We are most grateful to the authors who have submitted their research work to ICME 2012, the track co-chairs, the technical program committee members who have contributed significantly to the peer review process. In particular, the ICME 2012 Program Chairs are most grateful to the 18 track co-chairs: Marcel Worring, Shuicheng Yan, Xavier Anguera, Jingdong Wang, Qi Tian, Michelle Zhou, Irene Cheng, Cha Zhang, Fernando Pereira, Dave Bull, Patrick Ndjiki-Nya, Nicu Sebe, Feng Wu, Ivan Bajic, Andreas Uhl, Patrizio Campisi, Andrew Perkis, Weisi Lin, for their hard working, cooperation and very professional way of organizing individual track reviews.

We would like to express our thanks to the ICME Steering Committee, especially to the current committee chair, Chang Wen Chen (SUNY Buffalo), as well as the past chair, Wenjun Zeng (University of Missouri), for their supports, guidance and advice. We also like to thank the support from the T-MM Steering Committee and Editorial Board. Last but not least, we would like to express our greatest
appreciate for the initiatives, support and supervision from ICME 2012 General Chairs, Jian Zhang, Dan Schonfeld, and David Dagan Feng.

Hope to see you all in Melbourne!

Jianfei Cai, Nanyang Technological University, Singapore
Alan Hanjalic, Delft University of Technology, The Netherlands
Enrico Magli, Politecnico di Torino Italy
Mark Pickering, The University of New South Wales, Australia
Gerald Friedland, International Computer Science Institute, USA
Xian-Sheng Hua, Microsoft, USA
Organizing Committee

**General Chairs**
Jian Zhang, University of Technology, Sydney, Australia, NICTA (National ICT Australia)
Dan Schonfeld, University of Illinois, USA
David Dagan Feng, The University of Sydney, Australia

**Technical Program Coordinator**
Jianfei Cai, Nanyang Technological University, Singapore

**Program Chairs**
Jianfei Cai, Nanyang Technological University, Singapore
Alan Hanjalic, Delft University of Technology, The Netherlands
Enrico Magli, Politecnico di Torino Italy
Mark Pickering, The University of New South Wales, Australia
Gerald Friedland, International Computer Science Institute, USA
Xian-Sheng Hua, Microsoft, USA

**Local Arrangement and Finance Chairs**
Henry Wu, The Royal Melbourne Institute of Technology (RMIT), Australia
Qiang Wu, University of Technology, Sydney, Australia

**Plenary Chairs**
Zhengyou Zhang, Microsoft Research, USA
John Apostolopoulos, HP Research Labs, USA

**Workshop Chairs**
Jorge E. Caviedes, Intel Corporation, USA
Tao Mei, Microsoft Research Asia, China

**Tutorial Chairs**
Yen-Kuang Chen, Intel Corporation, USA
Shuicheng Yan, National University of Singapore, Singapore

**Special Session Chairs**
Pascal Frossard, Ecole Polytechnique Fédérale de Lausanne (EPFL), Switzerland
Zhen Wen, IBM T.J Watson Research Centre, USA

**Panel Chairs**
Béatrice Pesquet-Popescu, Télécom ParisTech, France
Jialie Shen, Singapore Management University, Singapore

**Publicity Chairs**
Wen Gao, Peking University, China
Shin’ichi Satoh, National Institute of Informatics, Japan
Yanning Zhang, Northwestern Polytechnic University, China
Li Zhuo, Beijing University of Technology, China
Yo-Sung Ho, Gwangju Institute of Science and Technology, Korea

Innovation and Demo Chairs
Martha Larson, Delft University of Technology, The Netherlands
Mercan Topkara, IBM T.J.Watson Research Center, USA

Publication Chair
Xiaodong Yue, Tongji University, China

Exhibition & Industry Connection Chair
Lorraine Valladares, The Royal Melbourne Institute of Technology (RMIT), Australia

Awards Chairs
Manzur Murshed, Monash University, Australia
Julien Epps, The University of New South Wales, Australia
Steering Committee

Chair
Chang Wen Chen, State University of New York at Buffalo, USA

Voting Members (Society Representatives)

Circuits and Systems Society
Alexander C. Loui, Eastman Kodak Company, USA
Yong Rui, Microsoft, China

Communications Society
Khaled El-Maleh, Qualcomm, USA
Jin Li, Microsoft Research, USA

Computer Society
Ashfaq Khokhar, University of Illinois at Chicago, USA
Mei-Ling Shyu, University of Miami, USA

Signal Processing Society
Dinei A. Florencio, Microsoft Research, USA
Yap-Peng Tan, Nanyang Technological University, Singapore

Non-voting Members
Yen-Kuang Chen, Intel, USA (C&S MSATC Chair)
Haohong Wang, Cisco, USA (ComSoc MMTC Chair)
Shu-Ching Chen, Florida International University, USA (CS TCMC Chair)
Oscar Au, Hong Kong University of Science and Technology, Hong Kong (SPS MMSP TC Chair)
Mihaela van der Schaar, University of California at Los Angeles, USA (TMM EiC)
Irene Cheng, University of Alberta, Canada (ICME2011 General Chair)
Jian Zhang, University of Technology, Sydney, Australia (ICME2012 General Chair)

Administration
Lisa Schwarzbek, IEEE Signal Processing Society
Track Chairs

Track 1: Multimedia Content Analysis, Retrieval and Database
Track Chairs:
Marcel Worring, University of Amsterdam, Netherlands
Shuicheng Yan, National University of Singapore, Singapore
Xavier Anguera Telefonica, Spain
Jingdong Wang, Microsoft Research Asia, China

Track 2: Multimedia Applications, Interface and Interactions
Track Chairs:
Qi Tian, University of Texas at San Antonio, USA
Michelle Zhou, IBM Research, USA

Track 3: Multimedia Creation and Synthesis and 3D Media
Track Chairs:
Irene Cheng, University of Alberta, Canada
Cha Zhang, Microsoft Research Asia, China

Track 4: Multimedia Coding, transcoding and standards
Track Chairs:
Fernando Pereira, Instituto Superior Técnico, Portugal
Dave Bull, Univ of Bristol, UK

Track 5: Multimedia signal processing, system and architecture
Track Chairs:
Patrick Ndjiki-Nya, Heinrich Hertz Institute, Germany
Nicu Sebe, University of Trento, Italy

Track 6: Multimedia Networking and Communications
Track Chairs:
Feng Wu, Microsoft Research Asia, China
Ivan Bajic, Simon Fraser University, Canada

Track 7: Multimedia Security and Privacy
Track Chairs:
Andreas Uhl, University of Salzburg, Austria
Patrizio Campisi, University of Roma TRE, Italy

Track 8: Multimedia quality assessment and quality experience
Track Chairs:
Andrew Perkis, Norwegian University of Science and Technology, Norway
Weisi Lin, Nanyang Technological University, Singapore
Social Events

ICME 2012 Welcome Reception
Place: Foyer area of meeting rooms 103. 104 and 105
Date: Monday, 9 July 2012
Time: 18:15 – 20:00

ICME 2012 Conference Banquet Dinner
Place: 8 Whiteman Street Southbank VIC 3006, Australia
Date: Wednesday, 11 July 2012
Time: 9:00 – 22:00

How to get there:
You can reach the banquet dinner venue by walking across the Whiteman Street from the Melbourne Exhibition and Convention Centre. The function room is located at level 1 – River Room, Crown Towers (8 Whiteman Street Southbank VIC 3006, Australia Tel: 03 9292 6688)

Directions by walking to the Conference Banquet Dinner

A. Conference Venue & Welcome Reception: Melbourne Convention Centre
B. Conference Banquet
Technical Committee Meetings

10 July 2012

1. IEEE Circuits and Systems Society: Multimedia Systems and Applications (C&S MSA TC)
   Time: 12:10 – 13:20
   Room: 111

2. IEEE Communication Society: Multimedia Communications (ComSoc MM TC)
   Time: 12:10 – 13:20
   Room: 112

3. ICME Steering Committee (ICME SC)
   Time: 18:00 – 19:30
   Room: 112

11 July 2012

   Time: 12:30 – 13:40
   Room: 111

2. IEEE Computer Society: Technical Committee on Multimedia Computing (CS TCMC)
   Time: 11:50 – 13:10
   Room: 112

3. Best paper award selection meeting
   Time: 16.30 – 18.00
   Room: 112
KEYNOTE TALKS
Keynote Speaker

Henry Fuchs

Federico Gil Distinguished Professor of Computer Science
Adjunct Professor in Department of Biomedical Engineering
University of North Carolina at Chapel Hill, USA
Email: fuchs@cs.unc.edu
Web: http://www.cs.unc.edu/~fuchs/

Toward Transparent Telepresence Systems

Time: 8:50-10:00, 10th July 2012
Room: 105

Abstract:

Dreams of telepresence are fed by special effects in movies, on stage, and even in mainstream news programs. These illusions may satisfy most passive viewers, but do not work for the actual distant participants. Even today's best "Telepresence" systems have difficulty supporting such simple capabilities as eye contact and gaze awareness among these multiple distant participants. This talk will review some component technologies needed to achieve natural--some would say "transparent"--telepresence (3D acquisition, tracking, rendering, 3D display), will present some recent progress, and will outline several promising future directions. Specifically, recent progress in 3D depth cameras, and in multi-viewer autostereo displays may make possible dramatically improved telepresence systems within the next few years. Such progress will allow development of a new generation of capabilities, such as the distant participants mixing naturally and arbitrarily in the shared space, which today are beyond consideration of even the best "Telepresence" systems.

About the speaker:

Henry Fuchs has been active in computer graphics since the 1970s, with rendering algorithms (BSP Trees), hardware (Pixel-Planes), virtual environments, tele-immersion systems and medical applications. He is a member of the (US) National Academy of Engineering, the American Academy of Arts and Sciences, recipient of the 1992 ACM-SIGGRAPH Achievement Award, the 1992 Academic Award of the National Computer Graphics Association, and the 1997 Satava Award of the Medicine Meets Virtual Reality Conferences. With Nadia Thalmann and Markus Gross, he co-directs the NTU Singapore - ETH Zurich - UNC Chapel Hill BeingThere Telepresence Research Centre.
Keynote Speaker
Chang Wen Chen

Professor
Department of Computer Science and Engineering
State University of New York at Buffalo, USA
Email: chencw@buffalo.edu
Web: http://www.cse.buffalo.edu/faculty/chencw

Mobile Multimedia Meet Cloud: Challenges and Future Directions
Time: 9:00-10:00, 11th July 2012
Room: 105

Abstract:
Smart phones and tablets are becoming the most desired platforms for ubiquitous multimedia services. When this contemporary trend of mobile media meets the increasing availability of public Clouds, a new technical paradigm, Cloud Mobile Media, is now emerging. This new paradigm presents numerous challenges for researchers to develop next generation cloud-driven media services for omnipresent mobile users. This talk shall identify several major challenges in cloud-centric mobile media in properly discovering and seamlessly transporting the user desired media contents in their most appropriate form between the ubiquitous cloud infrastructures and the heterogeneous mobile devices. In particular, key factors that impact the cloud mobile media services, including service latency, user experience, mobility management, energy efficiency, and content security, will be examined. This talk shall also outline some future research directions to further advance this emerging cloud mobile media by overcoming technical barriers resulting from the mismatch between resource abundant cloud infrastructures and severely resource limited mobile devices.

About the speaker:
Dr. Chen has been working extensively in the areas of multimedia, digital image and video, distributed systems, and sensor network for more than 20 years. He has published over 200 research papers at highly-ranked international journals and leading international conferences. He was elected an IEEE Fellow for his contributions in digital image and video processing, analysis, and communications and an SPIE Fellow for his contributions in electronic imaging and visual communications.
Keynote Speaker

Baining Guo

Assistant Managing Director
Microsoft Research Asia, China
Email: bainguo@microsoft.com
Web: http://research.microsoft.com/en-us/people/bainguo/

The Future of Natural User Interface
Time: 9:00-10:00, 12th July 2012
Room: 105

Abstract:
Natural user interaction devices such as Microsoft Kinect create tremendous excitement and opportunities for researchers and technologists in multimedia computing. Despite commercial success of these devices, we are still at the early stage of an evolution towards natural and seamless interaction between computer and human. To build a truly natural user interface, we need multi-disciplinary collaboration and innovation from researchers in computer vision, computer graphics, CHI, signal processing, and related areas. In this talk, I will use recent technological advances with Microsoft Kinect to illustrate core technologies employed by today's natural user interfaces. I will also try to identify a few emerging research themes in this new and exciting area.

About the Speaker:
Dr. Baining Guo is a Deputy Managing Director at Microsoft Research Asia, where he also leads the graphics lab. Prior to joining Microsoft Research in 1999, he was a senior staff researcher with the Microcomputer Research Labs of Intel Corporation in Santa Clara, California. Dr. Guo graduated from Beijing University with B.S. in mathematics. He went to Cornell University for his graduate study from 1986 to 1991 and obtained M.S. in Computer Science and Ph.D. in Applied Mathematics. Dr. Guo is an IEEE fellow and an ACM fellow. Dr. Guo's research interests include computer graphics, visualization, natural user interface, and statistical learning. He is particularly interested in studying light transmission and reflection in complex, textured materials, with applications to texture and reflectance modeling. He also worked on real-time rendering and geometry modeling. Dr. Guo was on the editorial boards of IEEE Transactions on Visualization and Computer Graphics (2006--2010) and Computer and Graphics (2007 -- 2011). He is currently an associate editor of IEEE Computer Graphics and Applications. He has served on the program committees of numerous conferences in graphics and visualization, including ACM Siggraph and IEEE Visualization. Dr. Guo holds over 40 US patents.
RESEARCH OVERVIEW TALKS
Research Overview

Hong Z. Tan

Senior Researcher and Manager
Human Computer Interaction Group
Microsoft Research Asia, China
Professor
School of Electrical and Computer Engineering
Purdue University, USA
Microsoft Research Asia
Email: hongtan@purdue.edu
Web: http://www.ece.purdue.edu/~hongtan/

Haptics and its Application in Multimodal User Interfaces
Time: 15:40-16:40, 10th July 2012
Room: 105

Abstract:
For a long time, the sense of touch has been regarded as an inferior sense as compared to vision or audition. However, the potential to receive information through touch is well illustrated by natural communication methods used by individuals with severe auditory and/or visual impairments. The last decade has witnessed renewed interests in transmitting information through touch for enhanced interaction experience. I will start this research overview talk will a brief introduction to the human somatosensory system. I will then present an overview of state-of-the-art haptic technologies. Finally, I will discuss two research programs, haptic cuing of visual attention and visuohaptic watermarking, to illustrate the application of haptics in multimodal user interfaces.

About the Speaker:
Hong Z. Tan is a professor of electrical and computer engineering with courtesy appointments in mechanical engineering and psychological sciences at Purdue University. She is currently working at Microsoft Research Asia while taking a research leave from Purdue University. Her research focuses on haptic human-machine interfaces and haptic perception. She is best known for her perception-based approach to solving engineering problems. She received her Bachelor's degree in Biomedical Engineering from Shanghai Jiao Tong University, P.R. China. She earned her Master and Doctorate degrees, both in Electrical Engineering and Computer Science, from the Massachusetts Institute of Technology (MIT). She was a Research Scientist at the MIT Media Laboratory before joining the faculty at Purdue's School of Electrical and Computer Engineering in 1998. She has held a McDonnell Visiting Fellowship at Oxford
University, and a Visiting Associate Professorship in the Department of Computer Science at Stanford University. Tan was a recipient of the US National Science Foundation's Early Faculty Development (CAREER) Award from 2000 to 2004. In addition to serving on numerous program committees, she was a co-organizer (with Blake Hannaford) of the International Symposium on Haptic Interfaces for Virtual Environment and Teleoperator Systems from 2003 to 2005. She was the founding chair of the IEEE Technical Committee on Haptics, a home for the international interdisciplinary haptics research community, from 2006 to 2008. She has served as an associate editor of Presence: Teleoperators & Virtual Environments, ACM Transactions on Applied Perception and IEEE Transactions on Haptics.
Focusing Human Attention on the "Right" Visual Data
Time: 15:30-16:30, 11th July 2012
Room: 105

Abstract:
Widespread visual sensors and unprecedented connectivity have left us awash with visual data---from online photo collections, home videos, news footage, medical images, or surveillance feeds. Which images and videos among them warrant human attention? This talk focuses on two problem settings in which this question is critical: supervised learning of object categories, and unsupervised video summarization. In the first setting, the challenge is to sift through candidate training images and select those that, if labeled by a human, would be most informative to the recognition system. In the second, the challenge is to sift through a long-running video and select only the essential parts needed to summarize it for a human viewer. I will present our recent research addressing these problems, including novel algorithms for large-scale active learning and egocentric video synopses for wearable cameras. Both domains demonstrate the importance of "semi-automating" certain computer vision tasks, and suggest exciting new applications for large-scale visual analysis.

About the Speaker:
Kristen Grauman is the Clare Boothe Luce Assistant Professor in the Department of Computer Science at the University of Texas at Austin. Her research in computer vision and machine learning focuses on visual search and object recognition. Before joining UT-Austin in 2007, she received her Ph.D. in the EECS department at MIT, in the Computer Science and Artificial Intelligence Laboratory. She is an Alfred P. Sloan Research Fellow and Microsoft Research New Faculty Fellow, and a recipient of NSF CAREER and ONR Young Investigator awards. She and her collaborators were recognized with the CVPR Best Student Paper Award in 2008 for work on hashing algorithms for large-scale image retrieval and the Marr Best Paper Prize at ICCV in 2011 for work on modeling relative visual attributes.
Research Overview

David Taubman

Professor
School of Electrical Engineering and Telecommunications
The University of New South Wales, Australia
Email: d.taubman@unsw.edu.au
Web:http://www2.eet.unsw.edu.au/staff/taubman/profile.htm

Scalable Video Compression
Time: 15:00-16:00, 12th July 2012
Room: 105

Abstract:
Scalable media compression algorithms are desirable because they allow the content to be compressed without prior knowledge of the set of bit-rates and/or resolutions at which it is to be distributed and decoded. Scalable image compression technologies are now well understood and highly competitive with non-scalable variants. In fact, applications that rely upon the scalability and interactive accessibility features of the highly scalable image compression standard JPEG2000 have been expanding in recent times and some of these applications intersect with the domain of video compression. Highly scalable video compression itself is fundamentally more challenging than scalable image compression, primarily because efficient video compressors rely upon the explicit estimation and communication of motion side information. Nevertheless, important advances in scalable video compression have been made over the past decade. One outcome of such developments is the SVC extension of H.264/AVC, where multiple spatial and temporal resolution layers are compressed with their own motion fields, but with the aid of inter-layer prediction. Other approaches, replace prediction alone with motion compensated 3D wavelet transforms, with approximately orthogonal basis functions. From a theoretical perspective, such approaches are fundamentally superior to inter-layer prediction; moreover, they have the property that all information associated with lower resolutions is fully embedded inside the higher resolution information, which can have important advantages in interactive browsing applications. However, 3D wavelet transforms have their own drawbacks, primarily related to the representation and scaling of suitable motion fields.

This presentation will present an overview of the major approaches that have been taken to the problem of scalable video compression, including some of the more important theoretical concepts. Various applications for scalable video coding will be presented, including emerging applications. The talk will highlight what has been achieved,
as well as future directions for research and some alternate paradigms for exploiting redundancy that may compete with scalable video compression. Considering the importance of motion, the presentation will also provide some insights and recent results related to new approaches to the efficient and scalable representation of motion information.

About the Speaker:
David Taubman is with the School of Electrical Engineering and Telecommunications, at the University of New South Wales, where he heads the Telecommunications Research Group. Before joining UNSW at the end of 1998, he spent 4 years at Hewlett-Packard’s research laboratories in Palo Alto, California. He received the B.S. and B.E. (Electrical) degrees in 1986 and 1988 from the University of Sydney, Australia, and the M.S. and Ph.D. degrees in 1992 and 1994 from the University of California at Berkeley. He has contributed extensively to the JPEG2000 standard for image compression and the JPIP standard for interactive image communication and continues to contribute to these technologies. He is author, with Michael Marcellin, of the book “JPEG2000: Image compression fundamentals, standards and practice” and author of the popular Kakadu software for JPEG2000 developers. He is recipient of two IEEE Best Paper awards: for the 1996 paper, "A Common Framework for Rate and Distortion Based Scaling of Highly Scalable Compressed Video;" and for the 2000 paper, "High Performance Scalable Image Compression with EBCOT". His research interests include scalable image and video compression, robust communication of scalable media over unreliable channels, interactive multimedia communication, perceptual modeling of video and statistical inverse problems in imaging.
TIME MACHINE EXPERT TALKS
Before the use of Hidden Markov Models (HMM) became ubiquitous in speech-related applications, pattern matching algorithms like the well known Dynamic Time Warping (DTW) algorithm [1] were extensively used for applications such as spoken keyword recognition [2]. At the time, the main drawbacks of this technology were its computational cost (given the machinery available at the time) and the lack of generalization when matching acoustic sequences from different speakers or different acoustic contexts. The availability of labeled datasets used for training pushed pattern matching techniques aside in favor of HMMs. Still, HMMs have several well known weaknesses, such as overgeneralization given the training data, lack of robustness to changing noise conditions and the need to have large corpora of well-labeled training data, limiting their suitability for some speech applications. For this reason, recently some research groups started to look again at DTW as a plausible alternative, and worked on smoothing those issues that made it unsuitable in the past. On the one hand, new acoustic features are being researched [3] to make the matching as independent as possible to the speaker, while keeping the content. On the other hand, although computing power is much improved from the 70’s, DTW several enhancements have been proposed [4,5] in order to allow for more challenging tasks than in the past. Some of the tasks where pattern-matching (and in particular DTW) approaches are currently applied are: automatic discovery of repeated patterns in speech, query-by-example voice search, pattern-based speech recognition and low-resource languages analysis.

References:
In 1995, Mark Weiser and John Seeley Brown said that computers would enter society in 3 stages. The Mainframe Era was followed by the Personal Computer Era. They predicted that the internet and distributed computing would lead to an era of Ubiquitous Computing. Some say that it has, but what we now call UC is not what Weiser and Brown described. It is true that each person now uses many computers, instead of the other way around, but they did not just define UC by the human: computer ratio.

“The most potentially interesting, challenging and profound change implied by the ubiquitous computing era is a focus on calm.”

Calm Technology is based on the two ways that humans process information. Trying to focus on more than one thing at once is stressful, but humans can take in much more information if it is presented peripherally; in a way that allows the individual to judge whether or not to give it more attention. Basic physiology and neuroanatomy show that we naturally examine things closely while at the same time using other senses to keep track of subtle changes in our environment, warning us when the peripheral becomes important. What’s more, the process of plucking things from the periphery, examining them and then deciding how to resort them is a comforting activity. It makes us feel at home and in control.

Ubiquitous Computing is everywhere now (if you’ll pardon the pun) but Calm Technology has been all but abandoned because it is harder to design and implement than traditional multi-media interaction. So, instead of deliberate calm, we have constant text message alerts, ring tones and email pop-ups demanding the immediate attention of everyone within earshot. Imagine instead that your cell phone would subtly let you know who is trying to reach you without pulling your attention away from the task at hand. It could be as gentle as familiar footsteps drawing close or the hint of a smile on your touchscreen.
Hardware and software are now more than good enough, and rich multimedia can be customised, stored, accessed and processed quickly and cheaply. It is time for Human Computer Interaction based on rich and textured interfaces; interaction that is less like a series of screaming emergencies fighting for our attention, and more like a walk in the woods.

It is time for Calm Technology.

References:
In 1995, Picard proposed ideas about how to use affective computing for multimedia selection [1]. She envisaged a content player which can sense user’s emotional state and deliver the content that matches her emotional state. This also needs an emotional understanding of the content itself. In 2001, Hanjalic and Xu proposed a user oriented affective video content analysis which pioneered the track of research which aimed at understanding the affective content of videos using the content [2].

With the current rate of the expansion of user generated content. The classic, cognitive indexing methods are showing their limits. Affective indexing is showing a potential alternative which attracts multimedia researchers. Users are also expecting content recommendation and delivery systems that can better adapt to their taste and emotions. Although the user interaction and social information is bridging the existing gap between the users and machines, emotional understanding from the content and users will certainly improve users’ experience.

Although, affective computing now has its own journal, IEEE Transactions on Affective Computing, and its biannual conference, Affective Computing and Intelligent Interactions (ACII) multimedia community does not have a strong presence in those publications. Multimedia related affective research is being published in different venues and lacks coherence and standardization. Unlike, emotion recognition studies which have large number of publicly available databases and challenges. There is a lack of standard benchmarks for video affective analysis. This is partly due to the usage of copyrighted material which prohibits publishing and sharing the datasets. The other reason behind this lack of consensus is that this track of research lacks its own forum which brings together the interested scholars or industrial key players. In this talk, I will present the origins of the idea of using affect in content delivery system, from Picard’s technical report and follow
its development in the last decade to its current state of the art. The focus of the talk will be on content analysis for affective characterization and not on affect sensing. At the end, I will give recommendations on affective corpora development and present an example of public affective content corpus development, i.e., Violence scenes detection at Mediaeval benchmarking campaign.

References:
High Order Entropy Coding – From Conventional Video Coding to Distributed
Time: 10:30-12:30
Room: 105

High order entropy coding has been extensively studied for conventional/centralized image/video coding and is believed to be much more important for improving the coding efficiency than adapting transform and quantization to the input signal [1-4]. Yet it has not been explored to any significant extent for distributed video coding (DVC), a paradigm shifting approach that features “simple encoder and complex decoder” that is well suited to emerging applications such as wireless sensor network and distributed parallel processing.

DVC research in the past decade has shown significant performance gap from conventional video coding techniques despite many advantages of the DVC paradigm. This is mainly because DVC suffers from the extreme difficulty in estimating the side information (equivalent to the motion compensated prediction in conventional video coding). This major obstacle has led to confusion and misconception, which has discouraged researchers to look into the issue of exploiting high order spatial correlations in DVC - a task itself proving to be very challenging too in the DVC paradigm. Recent work in my group [5] provided some theoretical analysis of the performance of DVC in terms of side information estimation and has demonstrated that in practice it has comparable performance as traditional motion compensated prediction. This suggests that it is the right time now to move on to investigate how to efficiently explore the high order spatial correlations in DVC. In this talk, I will review the evolution of techniques that have been proposed for high order entropy coding in conventional video coding, with a focus on high order context based approaches, and discuss how previous ideas and experiences can be leveraged to speed-up the progress in designing highly efficient entropy coding in the context of DVC.

References:
TECHNICAL PROGRAMS
CONTENTS

MAIN CONFERENCE PROGRAMS

10TH JULY 2012, MORNING ............................................... 48
  Opening Ceremony .................................................................. 48
  Elevator Pitch Session (90-second highlight of each best paper candidates) .................................................. 48
  OT1: Multimedia Content Analysis, understanding and Retrieval I ............................................................... 48
  OT2: Special session online community .................................. 50
  OT3: Media Coding & Transcoding I ....................................... 51
  OT4: 3D Analysis & Scene Synthesis ........................................ 52

10TH JULY 2012, AFTERNOON ................................. 53
  OT5: Multimedia Content Analysis, understanding and Retrieval II ................................................................. 53
  OT6: Image / Video Processing .................................................. 55
  OT7: Media Streaming ............................................................ 56
  OT8: Multimedia Security and Privacy .................................... 57
  Research Overview ................................................................ 58
  Demo Session ......................................................................... 58
  Poster Session (Tuesday) ........................................................ 58

11TH JULY 2012, MORNING ........................................ 71
  Keynote: Chang Wen Chen .................................................... 71
  Student Travel Grant Outcome Announcement ..................... 71
  Time Machine Plenary Session .............................................. 71

11TH JULY 2012, AFTERNOON .................................. 72
  OW1: Multimedia Content Analysis, understanding and Retrieval III .............................................................. 72
  OW2: Acoustic Signal Analysis & Processing ......................... 73
  OW3: Media coding & transcoding II ...................................... 74
  OW4: Special session Perceptual Visual Signal Coding and Display ................................................................. 75
  Research Overview ............................................................... 76
  Poster Session (Wednesday) .................................................. 76
  ICME 2012 Conference Banquet in Melbourne Casio function hall ................................................................. 87

12TH JULY 2012, MORNING ...................................... 88
  Keynote: Baining Guo ............................................................. 88
  OH1: Multimedia Content Analysis, understanding and Retrieval IV ................................................................. 88
  OH2: Multimedia System and Architecture ........................... 89
  OH3: Multimedia Applications ............................................... 90
  OH4: Multimedia Perceptual Assessment and Signal Processing ................................................................. 91

12TH JULY 2012, AFTERNOON .................................. 92
OH5: Multimedia Content Analysis, understanding and Retrieval ................................................................. 92
OH6: Multimedia Signal Processing ................................................................. 93
OH7: 3D Media ........................................................................................................... 94
OH8: Media Coding and Delivery ........................................................................... 95
Research Overview: ................................................................................................. 96
Poster Session (Thursday) ....................................................................................... 96

WORKSHOPS PROGRAMS

MUST-EH: THE 2ND IEEE INTERNATIONAL WORKSHOP ON MULTIMEDIA SERVICES AND TECHNOLOGIES FOR E-HEALTH ........................................................................................................ 108
Opening ......................................................................................................................... 108
WM1 ................................................................................................................................. 108
WM4 ................................................................................................................................. 108

SMC: THE 1ST INTERNATIONAL WORKSHOP ON SOCIAL MULTIMEDIA COMPUTING ......................................................................................... 110
Opening ........................................................................................................................... 110
WM2 ................................................................................................................................. 110
WM5 ................................................................................................................................. 110
WM8 ................................................................................................................................. 111
WM11 ............................................................................................................................... 112

HOTMM: WORKSHOP ON HOT TOPICS IN MOBILE MULTIMEDIA ....................................................................................... 114
Opening ........................................................................................................................... 114
WM3 ................................................................................................................................. 114
WM6 ................................................................................................................................. 114

3Dcia: THE 2ND WORKSHOP ON COMMUNITY BASED 3D CONTENTS AND ITS APPLICATION ............................................................................. 116
Opening ........................................................................................................................... 116
WM7 ................................................................................................................................. 116
WM10 ............................................................................................................................... 116

TEMPEKU: TANGIBLE EDUTAINMENT MEDIA FOR PLAYFUL EVOLUTION OF KNOWLEDGE AND UNDERSTANDING .................................. 118
Opening ........................................................................................................................... 118
WM9 ................................................................................................................................. 118
WM12 ............................................................................................................................... 118

EMSA: INTERNATIONAL WORKSHOP ON EMERGING MULTIMEDIA SYSTEMS AND APPLICATIONS ............................................. 120
Opening ........................................................................................................................... 120
WF1 ........................................................................................................................................ 120
WF7 .................................................................................................................................... 121
WF13 ................................................................................................................................... 122
WF19 ................................................................................................................................... 123
WF25 ................................................................................................................................... 123

HOT3D: WORKSHOP ON HOT TOPICS IN 3D MULTIMEDIA ...................................................................................................................... 125
CLCAT: THE 1ST WORKSHOP ON (RE)CREATING LIVELY CITIES THROUGH AMBIENT TECHNOLOGIES: ARTS, CULTURE, AND GASTERONOMIC EXPERIENCES ..........127
Opening .................................................................................. 127
WF3........................................................................................ 127
WF9........................................................................................ 127
WF15...................................................................................... 128

A-LSMM: THE INTERNATIONAL WORKSHOP ON ADVANCES IN LARGE-SCALE MULTIMEDIA DATA COLLECTION, MINING AND RETRIEVAL .......................129
Opening .................................................................................. 129
WF4........................................................................................ 129
WF10...................................................................................... 129

HFC3D: HUMAN-FOCUSED COMMUNICATIONS IN THE 3D CONTINUUM...............................................................131
Opening .................................................................................. 131
WF5........................................................................................ 131
WF11...................................................................................... 131
WF17...................................................................................... 132

AAMS-PS: THE 2ND IEEE INTERNATIONAL WORKSHOP ON ADVANCES IN AUTOMATED MULTIMEDIA SURVEILLANCE FOR PUBLIC SAFETY ........................................134
Opening .................................................................................. 134
WF6........................................................................................ 134
WF12...................................................................................... 134
WF18...................................................................................... 135

AIME: THE 2ND INTERNATIONAL WORKSHOP ON INTERACTIVE AMBIENT INTELLIGENCE MULTIMEDIA ENVIRONMENTS .........................................................136
Opening .................................................................................. 136
WF14...................................................................................... 136
WF20...................................................................................... 137

DEMONS
DEMONS ...................................................................................139

TUTORIALS
TUTORIALS..................................................................................142
MAIN CONFERENCE PROGRAM
10th July 2012, Morning

Opening Ceremony

Keynote: Henry Fuchs, University of North Carolina at Chapel Hill, USA
Time: 8:30-10:00
Room: 105

Elevator Pitch Session (90-second highlight of each best paper candidates)
Time: 10:00-10:15

Coffee Break
Time: 10:15-10:40

OT1: Multimedia Content Analysis, understanding and Retrieval I
Chairs: Zhen Wen, IBM Research, USA
Zicheng Liu, MSRA, China
Time: 10:40-12:20
Room: 103

Paper ID: 292
A HIERARCHICAL MODEL FOR HUMAN INTERACTION RECOGNITION
Yu Kong and Yunde Jia
Track: Multimedia Content Analysis, Retrieval and Databases
Session ID: OT1

Paper ID: 329
SOCIAL IMAGE TAGGING BY MINING SPARSE TAG PATTERNS FROM AUXILIARY DATA
Jie Lin, Junsong Yuan, Ling-Yu Duan, Siwei Luo, Wen Gao
Track: Multimedia Content Analysis, Retrieval and Databases
Session ID: OT1

Paper ID: 494
LEARNING GLOBAL AND RECONFIGURABLE PART-BASED MODELS FOR OBJECT DETECTION
Xi Song, Tianfu Wu, Yi Xie, and Yunde Jia
Track: Multimedia Content Analysis, Retrieval and Databases
Session ID: OT1
Paper ID: 581
SPIKING AND BLOCKING EVENTS DETECTION AND ANALYSIS IN VOLLEYBALL VIDEOS
Chun-Chieh Hsu, Hua-Tsung Chen, Chien-Li Chou, Suh-Yin Lee
Track: Multimedia Content Analysis, Retrieval and Databases
Session ID: OT1

Paper ID: 655
RECOGNITION OF MULTIPLE-FOOD IMAGES BY DETECTING CANDIDATE REGIONS
Yuji Matsuda, Hajime Hoashi and Keiji Yanai
Track: Multimedia Content Analysis, Retrieval and Databases
Session ID: OT1
OT2: Special session - online community

Chairs: Lexing Xie, Australian National University, Australia
Time: 10:40-12:20 extend to 12:40 to have a mini-panel
Room: 101

Paper ID: 798
DISCOVERING SOCIAL PHOTO NAVIGATION PATTERNS
Luca Chiarandini, Michele Trevisiol, Alejandro Jaimes
Track: Multimedia Content Analysis, Retrieval and Databases
Session ID: OT2

Paper ID: 665
GROUP RECOMMENDATION USING EXTERNAL FOLLOWEE FOR SOCIAL TV
Xiaoyan Wang, Lifeng Sun, ZhiWang and Da Meng
Track: Multimedia Applications, Interface and Interaction
Session ID: OT2

Paper ID: 459
MULTIMODAL LOCATION ESTIMATION OF CONSUMER MEDIA: DEALING WITH SPARSE TRAINING DATA
Jaeyoung Choi, Gerald Friedland, Venkatesan Ekambaram, Kannan Ramchandran
Track: Multimedia Content Analysis, Retrieval and Databases
Session ID: OT2

Paper ID: 257
EMPOWERING CROSS-DOMAIN INTERNET MEDIA WITH REAL-TIME TOPIC LEARNING FROM SOCIAL STREAMS
Suman D. Roy, Tao Mei, Wenjun Zeng, Shipeng Li
Track: Multimedia Applications, Interface and Interaction
Session ID: OT2

Paper ID: 747
MEDIA LIFECYCLE AND CONTENT ANALYSIS IN SOCIAL MEDIA COMMUNITIES
Lexing Xie, Hari Sundaram
Track: Multimedia Content Analysis, Retrieval and Databases
Session ID: OT2
OT3: Media Coding & Transcoding I

Chairs: Gene Cheung, National Institute of Informatics, Japan
       Ce Zhu, Nanyang Technological University, Singapore
Time: 10:40-12:20
Room: 104

Paper ID: 587
A FAST AND PERFORMANCE-MAINTAINED TRANSCODING METHOD
BASED ON BACKGROUND MODELING FOR SURVEILLANCE VIDEO
Mingchao Geng, Xianguo Zhang, Yonghong Tian, Luhong Liang,
Tiejun Huang
Track: Multimedia Coding, Transcoding and Standards
Session ID: OT3

Paper ID: 700
A UNIFIED ESTIMATION-THEORETIC FRAMEWORK FOR ERROR-
RESILIENT SCALABLE VIDEO CODING
Jingning Han, Vinay Melkote, Kenneth Rose
Track: Multimedia Coding, Transcoding and Standards
Session ID: OT3

Paper ID: 365
SALIENCY-COGNIZANT ERROR CONCEALMENT IN LOSS-CORRUPTED
STREAMING VIDEO
Hadi Hadizadeh, Ivan V. Bajic, Gene Cheung
Track: Multimedia Networking and Communications
Session ID: OT3

Paper ID: 375
IMPACT OF REGION-OF-INTEREST VIDEO CODING ON PERCEIVED
QUALITY IN MOBILE VIDEO
Ivan Himawan, Wei Song, Dian Tjondronegoro
Track: Multimedia Quality Assessment and Quality Experien
Session ID: OT3

Paper ID: 654
SOURCE DISTORTION TEMPORAL PROPAGATION MODEL FOR
MOTION COMPENSATED VIDEO CODING OPTIMIZATION
Tianwu Yang, Ce Zhu, Xiaojiu Fan, Qiang Peng
Track: Multimedia Coding, Transcoding and Standards
Session ID: OT3
OT4: 3D Analysis & Scene Synthesis

Paper ID: 621
MULTI-PERSPECTIVE PANORAMAS OF LONG SCENES
Siyuan Fang, Neill Campbell
Track: Multimedia Creation and Synthesis and 3D Media
Session ID: OT4

Paper ID: 366
MULTI-HYPOTHESIS PROJECTION-BASED SHIFT ESTIMATION FOR SWEEPING PANORAMA RECONSTRUCTION
Tuan Q. Pham, Philip Cox
Track: Multimedia Creation and Synthesis and 3D Media
Session ID: OT4

Paper ID: 102
SCENE SEGMENTATION AND PEDESTRIAN CLASSIFICATION FROM 3-D RANGE AND INTENSITY IMAGES
Xue Wei, Son Lam Phung, and Abdesselam Bouzerdoum
Track: Multimedia Creation and Synthesis and 3D Media
Session ID: OT4

Paper ID: 457
DEPTH-BASED DISOCCLUSION FILLING FOR VIRTUAL VIEW SYNTHESIS
Ilkoo Ahn and Changick Kim
Track: Multimedia Creation and Synthesis and 3D Media
Session ID: OT4

Paper ID: 702
VIRTUAL VIEW RECONSTRUCTION USING TEMPORAL INFORMATION
Shujie Liu, Philip A. Chou, Cha Zhang, Zhengyou Zhang, Chang Wen Chen
Track: Multimedia Creation and Synthesis and 3D Media
Session ID: OT4
Lunch
Time: 12:20-13:30

10th July 2012, Afternoon

OT5: Multimedia Content Analysis, understanding and Retrieval II
Chairs: Xian-Sheng Hua, Microsoft, USA
        Tuan Pham, Canon Information Systems Research Australia (CiSRA), Australia
Time: 13:30-15:10
Room: 103

Paper ID: 737
REGRESSION BASED POSE ESTIMATION WITH AUTOMATIC OCCLUSION DETECTION AND RECTIFICATION
Ibrahim Radwan, Abhinav Dhall, Jyoti Joshi, Roland Goecke
Track: Multimedia Content Analysis, Retrieval and Databas
Session ID: OT5

Paper ID: 356
2D FACE ALIGNMENT AND POSE ESTIMATION BASED ON 3D FACIAL MODELS
Shen-Chi Chen, Chia-Hsiang Wu, Shih-Yao Lin, Yi-Ping Hung
Track: Multimedia Applications, Interface and Interaction
Session ID: OT5

Paper ID: 372
EFFICIENT TAG MINING VIA MIXTURE MODELING FOR REAL-TIME SEARCH-BASED IMAGE ANNOTATION
Lican Dai, Xin-Jing Wang, Lei Zhang, Nenghai Yu
Track: Multimedia Content Analysis, Retrieval and Databas
Session ID: OT5

Paper ID: 211
A LARGE SCALE EXPERIMENT FOR MOOD-BASED CLASSIFICATION OF TV PROGRAMMES
Jana Eggink, Denise Bland
Track: Multimedia Content Analysis, Retrieval and Databas
Session ID: OT5

Paper ID: 266
PER-EXEMPLAR FUSION LEARNING FOR VIDEO RETRIEVAL AND RECOUNTING
Ilseo Kim, Sangmin Oh, A. G. Amitha Perera, Chin-Hui Lee
Track: Multimedia Content Analysis, Retrieval and Databas
Session ID: OT5
OT6: Image / Video Processing

Chairs: Tokunbo Ogunfunmi, Santa Clara University, USA
       Lixin Fan, Nokia Research Center, Finland

Time: 13:30-15:10
Room: 104

Paper ID: 5
JOINT EXAMPLE-BASED DEPTH MAP SUPER-RESOLUTION
Yanjie Li, Tianfan Xue, Lifeng Sun, Jianzhuang Liu
Track: Multimedia Signal Processing, System and Architect
Session ID: OT6

Paper ID: 371
SPATIOTEMPORAL SALIENCY DETECTION VIA SPARSE REPRESENTATION
Zhixiang Ren, Shenghua Gao, Deepu Rajan, Liang-Tien Chia, Yun Huang
Track: Multimedia Content Analysis, Retrieval and Databases
Session ID: OT6

Paper ID: 434
CONTEXT-AWARE SINGLE IMAGE RAIN REMOVAL
De-An Huang, Li-Wei Kang, Min-Chun Yang, Chia-Wen Lin, Yu-Chiang Frank Wang
Track: Multimedia Signal Processing, System and Architect
Session ID: OT6

Paper ID: 294
FROM 2D EXTRAPOLATION TO 1D INTERPOLATION: CONTENT ADAPTIVE IMAGE BIT-DEPTH EXPANSION
Pengfei Wan, Oscar C. Au, Ketan Tang, Yuanfang Guo, Lu Fang
Track: Multimedia Signal Processing, System and Architect
Session ID: OT6

Paper ID: 503
VIEW-INVARIANT FALL DETECTION SYSTEM BASED ON SILHOUETTE AREA AND ORIENTATION
Behzad Mirmahboub, Shadrokh Samavi, Nader Karimi, Shahram Shirani
Track: Multimedia Applications, Interface and Interaction
Session ID: OT6
OT7: Media Streaming

Chairs: Wenjun Zeng, University of Missouri, USA
Time: 13:30-15:10
Room: 101

**Paper ID: 235**
TRAFFIC REDUCTION FOR MULTIPLE USERS IN MULTI-VIEW VIDEO STREAMING
Takuya Fujihashi, Ziyuan Pan, Takashi Watanabe
*Track: Multimedia Networking and Communications*
*Session ID: OT7*

**Paper ID: 699**
QOS-DRIVEN AND FAIR DOWNLINK SCHEDULING FOR VIDEO STREAMING OVER LTE NETWORKS WITH DEADLINE AND HARD HAND-OFF
Qian Liu, Zixuan Zou, Chang Wen Chen
*Track: Multimedia Networking and Communications*
*Session ID: OT7*

**Paper ID: 526**
BAND CODES: CONTROLLED COMPLEXITY NETWORK CODING FOR PEER-TO-PEER VIDEO STREAMING
Attilio Fiandrotti, Valerio Bioglio, Enrico Magli, Marco Grangetto, Rossano Gaeta
*Track: Multimedia Networking and Communications*
*Session ID: OT7*

**Paper ID: 546**
RANDOM NETWORK CODING FOR MULTIMEDIA DELIVERY OVER LTE-ADVANCED
Dejan Vukobratovic, Chadi Khirallah, Vladimir Stankovic, John Thompson
*Track: Multimedia Networking and Communications*
*Session ID: OT7*

**Paper ID: 551**
A CROSS-LAYER VIDEO TRANSMISSION SCHEME WITH GUARANTEED END-TO-END QOS OVER MIMO OFDM SYSTEMS
Yahui Hu, Guofeng Lv, Song Ci, and Hui Tang
*Track: Multimedia Networking and Communications*
*Session ID: OT7*
**OT8: Multimedia Security and Privacy**

Chairs: Patrizio Campisi, University of Roma TRE, Italy  
Time: 13:30-15:10  
Room: 102

**Paper ID: 171**  
POSITION-PATCH BASED FACE HALLUCINATION VIA LOCALITY-CONSTRAINED REPRESENTATION  
Junjun Jiang, Ruimin Hu, Zhen Han, Tao Lu, and Kebin Huang  
*Track: Multimedia Security and Privacy*  
*Session ID: OT8*

**Paper ID: 478**  
LEARNING BOLTZMANN DISTANCE METRIC FOR FACE RECOGNITION  
Truyen Tran, Dinh Q. Phung and Svetha Venkatesh  
*Track: Multimedia Security and Privacy*  
*Session ID: OT8*

**Paper ID: 643**  
INTER-MODALITY FACE SKETCH RECOGNITION  
Hamed Kiani Galoogahi, Terence Sim  
*Track: Multimedia Security and Privacy*  
*Session ID: OT8*

**Paper ID: 401**  
A POLLUTION ATTACK TO PUBLIC-KEY WATERMARKING SCHEMES  
Yongdong Wu, Robert H. Deng  
*Track: Multimedia Security and Privacy*  
*Session ID: OT8*

**Paper ID: 113**  
AUTHENTICATING IMAGE METADATA ELEMENTS USING GEOLOCATION INFORMATION AND SUN DIRECTION ESTIMATION  
Pravin Kakar and N. Sudha  
*Track: Multimedia Security and Privacy*  
*Session ID: OT8*
Afternoon Tea

Time: 15:10-15:40

Research Overview
Chairs: Hong Z. Tan, Microsoft Research Asia, China
Time: 15:40-16:40
Room: 105

Demo Session
Time: 16:40-18:30
Room: 102
see page 138

Poster Session (Tuesday)

PT1
Time: 16:40-18:30, 10th July 2012
Chairs: Xin-Jing Wang, MSRA, China
Room: 103

Paper ID: 292
A HIERARCHICAL MODEL FOR HUMAN INTERACTION RECOGNITION
Yu Kong and Yunde Jia
Track: Multimedia Content Analysis, Retrieval and Databas
Session ID: PT1

Paper ID: 329
SOCIAL IMAGE TAGGING BY MINING SPARSE TAG PATTERNS FROM AUXILIARY DATA
Jie Lin, Junsong Yuan, Ling-Yu Duan, Siwei Luo, Wen Gao
Track: Multimedia Content Analysis, Retrieval and Databas
Session ID: PT1

Paper ID: 494
LEARNING GLOBAL AND RECONFIGURABLE PART-BASED MODELS FOR OBJECT DETECTION
Xi Song, Tianfu Wu, Yi Xie, and Yunde Jia
Track: Multimedia Content Analysis, Retrieval and Databas
Session ID: PT1

Paper ID: 581
SPIKING AND BLOCKING EVENTS DETECTION AND ANALYSIS IN VOLLEYBALL VIDEOS
Chun-Chieh Hsu, Hua-Tsong Chen, Chien-Li Chou, Suh-Yin Lee
Track: Multimedia Content Analysis, Retrieval and Databases
Session ID: PT1

**Paper ID: 655**
RECOGNITION OF MULTIPLE-FOOD IMAGES BY DETECTING CANDIDATE REGIONS
Yuji Matsuda, Hajime Hoashi and Keiji Yanai

Track: Multimedia Content Analysis, Retrieval and Databases
Session ID: PT1

**Paper ID: 737**
REGRESSION BASED POSE ESTIMATION WITH AUTOMATIC OCCLUSION DETECTION AND RECTIFICATION
Ibrahim Radwan, Abhinav Dhall, Jyoti Joshi, Roland Goecke

Track: Multimedia Content Analysis, Retrieval and Databases
Session ID: PT1

**Paper ID: 356**
2D FACE ALIGNMENT AND POSE ESTIMATION BASED ON 3D FACIAL MODELS
Shen-Chi Chen, Chia-Hsiang Wu, Shih-Yao Lin, Yi-Ping Hung

Track: Multimedia Applications, Interface and Interaction
Session ID: PT1

**Paper ID: 372**
EFFICIENT TAG MINING VIA MIXTURE MODELING FOR REAL-TIME SEARCH-BASED IMAGE ANNOTATION
Lican Dai, Xin-Jing Wang, Lei Zhang, Nenghai Yu

Track: Multimedia Content Analysis, Retrieval and Databases
Session ID: PT1

**Paper ID: 211**
A LARGE SCALE EXPERIMENT FOR MOOD-BASED CLASSIFICATION OF TV PROGRAMMES
Jana Eggink, Denise Bland

Track: Multimedia Content Analysis, Retrieval and Databases
Session ID: PT1

**Paper ID: 266**
PER-EXEMPLAR FUSION LEARNING FOR VIDEO RETRIEVAL AND RECOUNTING
Ilseo Kim, Sangmin Oh, A. G. Amitha Perera, Chin-Hui Lee

Track: Multimedia Content Analysis, Retrieval and Databases
Session ID: PT1
**Paper ID: 385**
A FAST AND ROBUST PEDESTRIAN DETECTION FRAMEWORK BASED ON STATIC AND DYNAMIC INFORMATION
Tao Xu, Hong Liu, Yueliang Qian, Zhe Wang
*Track: Multimedia Content Analysis, Retrieval and Databases*
*Session ID: PT1*

**Paper ID: 595**
THE PERFORMANCE OF THE SPEAKING RATE PARAMETER IN EMOTION RECOGNITION FROM SPEECH
David Philippou-Hübner, Bogdan Vlasenko, Ronald Böck, Andreas Wendemuth
*Track: Multimedia Signal Processing, System and Architect*
*Session ID: PT1*

**Paper ID: 607**
LEAF SHAPE DESCRIPTOR FOR TREE SPECIES IDENTIFICATION
Itheri Yahiaoui, Olfa Mzoughi and Nozha Boujemaa
*Track: Multimedia Content Analysis, Retrieval and Databases*
*Session ID: PT1*

**Paper ID: 620**
SALIENCY AWARE LOCALITY-PRESERVING CODING FOR IMAGE CLASSIFICATION
Quan Fang, Jitao Sang, Changsheng Xu,
*Track: Multimedia Content Analysis, Retrieval and Databases*
*Session ID: PT1*

**Paper ID: 398**
NOISY TAG ALIGNMENT WITH IMAGE REGIONS
Yang Liu, Jing Liu, Zechao Li, Hanqing Lu
*Track: Multimedia Content Analysis, Retrieval and Databases*
*Session ID: PT1*

**Paper ID: 601**
RELATIVE RELEVANCE FEEDBACK IN IMAGE RETRIEVAL
Yuki Sugiyama, Makoto P. Kato, Hiroaki Ohshima, Katsumi Tanaka
*Track: Multimedia Content Analysis, Retrieval and Databases*
*Session ID: PT1*

**Paper ID: 162**
MODELLING ATOMIC ACTIONS FOR ACTIVITY CLASSIFICATION
Jiangen Zhang, Benjamin Yao, Yongtian Wang
*Track: Multimedia Content Analysis, Retrieval and Databases*
*Session ID: PT1*
Poster Session (Tuesday)

**Paper ID: 170**  
LEARNING DETECTORS FROM LARGE DATASETS FOR OBJECT RETRIEVAL IN VIDEO SURVEILLANCE  
Rogerio Feris, Sharath Pankanti, Behjat Siddiquie  
*Track: Multimedia Content Analysis, Retrieval and Databases*  
*Session ID: PT1*

**Paper ID: 397**  
COMPARISON OF CURVELET AND WAVELET TEXTURE FEATURES FOR CONTENT BASED IMAGE RETRIEVAL  
Ishrat Jahan Sumana, Guojun Lu and Dengsheng Zhang  
*Track: Multimedia Content Analysis, Retrieval and Databases*  
*Session ID: PT1*

**Paper ID: 429**  
LEARNING SEMANTIC MOTION PATTERNS FOR DYNAMIC SCENES BY IMPROVED SPARSE TOPICAL CODING  
Wei Fu, Jinqiao Wang, Zechao Li, Hanqing Lu, Songde Ma  
*Track: Multimedia Content Analysis, Retrieval and Databases*  
*Session ID: PT1*
PT2
Chairs: Ruigang Yang, University of Kentucky, USA
Time: 16:40-18:30, 10th July 2012
Room: 103

Paper ID: 621
MULTI-PERSPECTIVE PANORamas OF LONG SCENES
Siyuan Fang, Neill Campbell
Track: Multimedia Creation and Synthesis and 3D Media
Session ID: PT2

Paper ID: 366
MULTI-HYPOTHESIS PROJECTION-BASED SHIFT ESTIMATION FOR
SWEEPING PANORAMA RECONSTRUCTION
Tuan Q. Pham, Philip Cox
Track: Multimedia Creation and Synthesis and 3D Media
Session ID: PT2

Paper ID: 102
SCENE SEGMENTATION AND PEDESTRIAN CLASSIFICATION FROM 3-D RANGE AND INTENSITY IMAGES
Xue Wei, Son Lam Phung, and Abdesselam Bouzerdoum
Track: Multimedia Creation and Synthesis and 3D Media
Session ID: PT2

Paper ID: 457
DEPTH-BASED DISOCCLUSION FILLING FOR VIRTUAL VIEW
SYNTHESIS
Ilkoo Ahn and Changick Kim
Track: Multimedia Creation and Synthesis and 3D Media
Session ID: PT2

Paper ID: 702
VIRTUAL VIEW RECONSTRUCTION USING TEMPORAL INFORMATION
Shujie Liu, Philip A. Chou, Cha Zhang, Zhengyou Zhang, Chang Wen Chen
Track: Multimedia Creation and Synthesis and 3D Media
Session ID: PT2

Paper ID: 245
WARPING-BASED NOVEL VIEW SYNTHESIS FROM A BINOCULAR IMAGE FOR AUTOSTEREOSCOPIC DISPLAYS
Yu-Hsiang Huang, Tzu-Kuei Huang, Yan-Hsiang Huang, Wei-Chao Chen, Yung-Yu Chuang
Track: Multimedia Creation and Synthesis and 3D Media
Session ID: PT2
**Paper ID: 289**  
DEPTH TEMPLATE BASED 2D-TO-3D VIDEO CONVERSION AND CODING SYSTEM  
Zhenyu Wang, Ronggang Wang, Shengfu Dong, Wei Wu, Longshe Huo, Wen Gao  
*Track: Multimedia Creation and Synthesis and 3D Media*  
*Session ID: PT2*

**Paper ID: 680**  
STABLE POSE ESTIMATION WITH A MOTION MODEL IN REAL-TIME APPLICATION  
Po-Chen Wu, Jui-Hsin Lai, Ja-Ling Wu, Shao-Yi Chien  
*Track: Multimedia Applications, Interface and Interaction*  
*Session ID: PT2*

**Paper ID: 765**  
SYMMETRIC CLUSTER SET LEVEL OF DETAIL FOR REAL-TIME TERRAIN RENDERING  
John Judnich and Nam Ling  
*Track: Multimedia Creation and Synthesis and 3D Media*  
*Session ID: PT2*

**Paper ID: 232**  
FULL SPHERICAL HIGH DYNAMIC RANGE IMAGING FROM THE SKY  
Fumio Okura, Masayuki Kanbara, Naokazu Yokoya  
*Track: Multimedia Creation and Synthesis and 3D Media*  
*Session ID: PT2*

**Paper ID: 301**  
FACE SWAPPING UNDER LARGE POSE VARIATIONS: A 3D MODEL BASED APPROACH  
Yuan Lin, Qian Lin, Feng Tang, Shengjin Wang  
*Track: Multimedia Creation and Synthesis and 3D Media*  
*Session ID: PT2*

**Paper ID: 482**  
FOREGROUND-OBJECT-PROTECTED DEPTH MAP SMOOTHING FOR DIBR  
Xiao-han Lu, Fang Wei, Fang-min Chen  
*Track: Multimedia Creation and Synthesis and 3D Media*  
*Session ID: PT2*

**Paper ID: 552**  
ACTIVITY RECOGNITION FROM RGB-D CAMERA WITH 3D LOCAL SPATIO-TEMPORAL FEATURES  
Yue Ming, Qiuqi Ruan, Alexander G. Hauptmann
Poster Session (Tuesday)

Track: Multimedia Creation and Synthesis and 3D Media
Session ID: PT2
PT3
Chairs: Patrizio Campisi, University of Roma TRE, Italy
Time: 16:40-18:30, 10th July 2012
Room: 104

**Paper ID: 171**
POSITION-PATCH BASED FACE HALLUCINATION VIA LOCALITY-CONSTRAINED REPRESENTATION
Junjun Jiang, Ruimin Hu, Zhen Han, Tao Lu, and Kebin Huang
*Track: Multimedia Security and Privacy*
*Session ID: PT3*

**Paper ID: 478**
LEARNING BOLTZMANN DISTANCE METRIC FOR FACE RECOGNITION
Truyen Tran, Dinh Q. Phung and Svetha Venkatesh
*Track: Multimedia Security and Privacy*
*Session ID: PT3*

**Paper ID: 643**
INTER-MODALITY FACE SKETCH RECOGNITION
Hamed Kiani Galoogahi, Terence Sim
*Track: Multimedia Security and Privacy*
*Session ID: PT3*

**Paper ID: 401**
A POLLUTION ATTACK TO PUBLIC-KEY WATERMARKING SCHEMES
Yongdong Wu, Robert H. Deng
*Track: Multimedia Security and Privacy*
*Session ID: PT3*

**Paper ID: 113**
AUTHENTICATING IMAGE METADATA ELEMENTS USING GEOLOCATION INFORMATION AND SUN DIRECTION ESTIMATION
Pravin Kakar and N. Sudha
*Track: Multimedia Security and Privacy*
*Session ID: PT3*

**Paper ID: 419**
RECOGNIZING OCCLUDED 3D FACES USING AN EFFICIENT ICP VARIANT
Peijiang Liu, Yunhong Wang, Di Huang and Zhaoxiang Zhang
*Track: Multimedia Security and Privacy*
*Session ID: PT3*
Paper ID: 541
CO-LDA: A SEMI-SUPERVISED APPROACH TO AUDIO-VISUAL PERSON RECOGNITION
Xuran Zhao, Nicholas Evans and Jean-Luc Dugelay
Track: Multimedia Security and Privacy
Session ID: PT3

Paper ID: 638
HUMAN DETECTION USING WAVELET-BASED CS-LBP AND A CASCADE OF RANDOM FORESTS
Deok-Yeon Kim, Joon-Young Kwak, ByoungChul Ko, Jae-Yeal Nam
Track: Multimedia Applications, Interface and Interaction
Session ID: PT3

Paper ID: 227
ROBUST FACE SUPER-RESOLUTION USING FREE-FORM DEFORMATIONS FOR LOW-QUALITY SURVEILLANCE VIDEO
Tomonari Yoshida, Tomokazu Takahashi, Daisuke Deguchi, Ichiro Ide and Hiroshi Murase
Track: Multimedia Security and Privacy
Session ID: PT3

Paper ID: 436
VIDEO COPY DETECTION USING A SOFT CASCADE OF MULTIMODAL FEATURES
Menglin Jiang, Yonghong Tian, Tiejun Huang
Track: Multimedia Security and Privacy
Session ID: PT3

Paper ID: 438
ROBUST IMAGE CONTENT AUTHENTICATION WITH TAMPER LOCATION
Li Weng, Geert Braeckman, Ann Dooms, Bart Preneel, Peter Schelkens
Track: Multimedia Security and Privacy
Session ID: PT3

Paper ID: 547
A DISTANCE-SENSITIVE ATTRIBUTE BASED CRYPTO SYSTEM FOR PRIVACY-PRESERVING QUERYING
Wei Sun, Shantanu Rane
Track: Multimedia Security and Privacy
Session ID: PT3

Paper ID: 637
CAMERA MODEL IDENTIFICATION USING LOCAL BINARY PATTERNS
Guanshuo Xu and Yun Qing Shi
*Track: Multimedia Security and Privacy*
*Session ID: PT3*

**Paper ID: 246**
THE EXTENDED CO-LEARNING FRAMEWORK FOR ROBUST OBJECT TRACKING
Chen Gong, Yang Liu, Tianyu Li, Jie Yang, Xiangjian He
*Track: Multimedia Signal Processing, System and Architect*
Session ID: PT3
PT4
Chairs: Gene Cheung, National Institute of Informatics, Japan
Time: 16:40-18:30, 10th July 2012
Room: 104

Paper ID: 587
A FAST AND PERFORMANCE-MAINTAINED TRANSCODING METHOD BASED ON BACKGROUND MODELING FOR SURVEILLANCE VIDEO
Mingchao Geng, Xianguo Zhang, Yonghong Tian, Luhong Liang, Tiejun Huangs
Track: Multimedia Coding, Transcoding and Standards
Session ID: PT4

Paper ID: 700
A UNIFIED ESTIMATION-THEORETIC FRAMEWORK FOR ERROR-RESILIENT SCALABLE VIDEO CODING
Jingning Han, Vinay Melkote, Kenneth Rose
Track: Multimedia Coding, Transcoding and Standards
Session ID: PT4

Paper ID: 365
SALIENCY-COGNIZANT ERROR CONCEALMENT IN LOSS-CORRUPTED STREAMING VIDEO
Hadi Hadizadeh, Ivan V. Bajic, Gene Cheung
Track: Multimedia Networking and Communications
Session ID: PT4

Paper ID: 375
IMPACT OF REGION-OF-INTEREST VIDEO CODING ON PERCEIVED QUALITY IN MOBILE VIDEO
Ivan Himawan, Wei Song, Dian Tjondronegoro
Track: Multimedia Quality Assessment and Quality Experience
Session ID: PT4

Paper ID: 654
SOURCE DISTORTION TEMPORAL PROPAGATION MODEL FOR MOTION COMPENSATED VIDEO CODING OPTIMIZATION
Tianwu Yang, Ce Zhu, Xiaojiu Fan, Qiang Peng
Track: Multimedia Coding, Transcoding and Standards
Session ID: PT4

Paper ID: 235
TRAFFIC REDUCTION FOR MULTIPLE USERS IN MULTI-VIEW VIDEO STREAMING
Takuya Fujihashi, Ziyuan Pan, Takashi Watanabe
Track: Multimedia Networking and Communications
Session ID: PT4
Paper ID: 699
QOS-DRIVEN AND FAIR DOWNLINK SCHEDULING FOR VIDEO STREAMING OVER LTE NETWORKS WITH DEADLINE AND HARD HAND-OFF
Qian Liu, Zixuan Zou, Chang Wen Chen
Track: Multimedia Networking and Communications
Session ID: PT4

Paper ID: 526
BAND CODES: CONTROLLED COMPLEXITY NETWORK CODING FOR PEER-TO-PEER VIDEO STREAMING
Attilio Fiandrotti, Valerio Bioglio, Enrico Magli, Marco Grangetto, Rossano Gaeta
Track: Multimedia Networking and Communications
Session ID: PT4

Paper ID: 546
RANDOM NETWORK CODING FOR MULTIMEDIA DELIVERY OVER LTE-ADVANCED
Dejan Vukobratovic, Chadi Khirallah, Vladimir Stankovic, John Thompson
Track: Multimedia Networking and Communications
Session ID: PT4

Paper ID: 551
A CROSS-LAYER VIDEO TRANSMISSION SCHEME WITH GUARANTEED END-TO-END QOS OVER MIMO OFDM SYSTEMS
Yahui Hu, Guofeng Lv, Song Ci, and Hui Tang
Track: Multimedia Networking and Communications
Session ID: PT4

Paper ID: 224
DISTRIBUTED JOINT CHANNEL AND ROUTING ASSIGNMENT FOR MULTIMEDIA WIRELESS MESH NETWORKS
W.-L. Warner Hong, Fei Long, Pengye Xia, S.-H. Gary Chan
Track: Multimedia Networking and Communications
Session ID: PT4

Paper ID: 565
ACCURACY AND POWER CONSUMPTION TRADEOFFS IN VIDEO RATE ADAPTATION FOR COMPUTER VISION APPLICATIONS
Yousef O. Sharrab and Nabil J. Sarhan
Track: Multimedia Networking and Communications
Session ID: PT4
Poster Session (Tuesday)

**Paper ID: 642**
RESOURCE-DISTORTION MODELING FOR VIDEO STREAMING OVER MESH NETWORKS WITH PRIORITY-BASED PACKET SCHEDULING
Yongfei Zhang, Yunsheng Zhang, Shiyin Qin, Zhihai He
*Track: Multimedia Networking and Communications*
Session ID: PT4
11th July 2012, Morning

Keynote: Chang Wen Chen
State University of New York at Buffalo, USA
Time: 9:00-10:00
Room: 105

Student Travel Grant Outcome Announcement
Time: 9:00-10:00

Coffee Break
Time: 10:00-10:30

Time Machine Plenary Session
Time: 10:30-12:30
Room: 105

Paper ID: EP1
Expert Talk for Time Machine Session: Dynamic Time Warping New Youth
Xavier Anguera, Telefonica, Spain
Track: Expert Talk
Session ID: TM

Paper ID: EP2
Expert Talk for Time Machine Session: Designing Calm Technology “...as Refreshing as Taking a Walk in the Woods”
John N.A. Brown, Alpen-Adria Universität Klagenfurt, Austria & Universitat Politècnica de Catalunya, Spain
Track: Expert Talk
Session ID: TM

Paper ID: EP3
Expert Talk for Time Machine Session: Affective Multimedia Analysis: Introduction, Background and Perspectives
Mohammad Soleymani, Imperial College London, UK
Track: Expert Talk
Session ID: TM

Paper ID: EP4
Expert Talk for Time Machine Session: High Order Entropy Coding – From Conventional Video Coding to Distributed Video Coding
Wenjun Zeng University of Missouri, USA
Track: Expert Talk
Session ID: TM
Lunch  
Time: 12:30-13:40

11th July 2012, Afternoon

**OW1: Multimedia Content Analysis, understanding and Retrieval III**  
Chairs: Zicheng Liu, MSRA, China  
Time: 13:40-15:00  
Room: 103

**Paper ID: 734**  
ONTLOGICAL INFERENCE FRAMEWORK WITH JOINT ONTOLOGY CONSTRUCTION AND LEARNING FOR IMAGE UNDERSTANDING  
Shen-Fu Tsai, Hao Tang, Feng Tang and Thomas S. Huang  
*Track: Multimedia Content Analysis, Retrieval and Databas*  
*Session ID: OW1*

**Paper ID: 402**  
VIEW INDEPENDENT COMPUTER LIP-READING  
Yuxuan Lan, Barry-John Theobald and Richard Harvey  
*Track: Multimedia Applications, Interface and Interaction*  
*Session ID: OW1*

**Paper ID: 110**  
VIDEO GAZE PREDICTION: MINIMIZING PERCEPTUAL INFORMATION LOSS  
Junyong You  
*Track: Multimedia Content Analysis, Retrieval and Databas*  
*Session ID: OW1*

**Paper ID: 533**  
CLASS-BASED COLOR BAG OF WORDS FOR FASHION RETRIEVAL  
Costantino Grana, Daniele Borghesani, Rita Cucchiara  
*Track: Multimedia Content Analysis, Retrieval and Databas*  
*Session ID: OW1*
OW2: Acoustic Signal Analysis & Processing

Chairs: Julien Epps, The University of New South Wales, Australia
Time: 13:40-15:00
Room: 101

Paper ID: 744
NINE VOICES, ONE ARTIST: LINGUISTIC AND ACOUSTIC ANALYSIS
Talal Bin Amin, Pina Marziliano, James Sneed German
Track: Multimedia Content Analysis, Retrieval and Databases
Session ID: OW2

Paper ID: 475
MASK: ROBUST LOCAL FEATURES FOR AUDIO FINGERPRINTING
Xavier Anguera, Antonio Garzon and Tomasz Adamek
Track: Multimedia Content Analysis, Retrieval and Databases
Session ID: OW2

Paper ID: 624
CREATING THE SYDNEY YORK MORPHOLOGICAL AND ACOUSTIC RECORDINGS OF EARS DATABASE
Track: Multimedia Signal Processing, System and Architecture
Session ID: OW2

Paper ID: 174
BLIND SPEECH DEREVERBERATION BASED ON A STATISTICAL MODEL
Xulei Bao, Jie Zhu, Zhen Huang
Track: Multimedia Signal Processing, System and Architecture
Session ID: OW2
OW3: Media coding & transcoding II

Chairs: Manzur Murshed, Monash University, Australia
Xiaoyan Sun, MSRA, China
Time: 13:40-15:00
Room: 104

Paper ID: 730
SIFT-BASED IMAGE COMPRESSION
Huanjing Yue, Xiaoyan Sun, Feng Wu, Jingyu Yang
Track: Multimedia Coding, Transcoding and Standards
Session ID: OW3

Paper ID: 682
LAGRANGE-BASED VIDEO ENCODER OPTIMISATION TO ENHANCE MOTION REPRESENTATION IN THE COMPRESSED-DOMAIN
R.M.T.P. Rajakaruna, W.A.C. Fernando and J. Calic
Track: Multimedia Coding, Transcoding and Standards
Session ID: OW3

Paper ID: 751
A MODEL PREDICTIVE CONTROLLER FOR FRAME-LEVEL RATE CONTROL IN MULTIVIEW VIDEO CODING
Bruno Boessio Vizzotto, Bruno Zatt, Muhammad Shafique, Sergio Bampi, Jörg Henkel
Track: Multimedia Coding, Transcoding and Standards
Session ID: OW3

Paper ID: 155
AN ADAPTIVE DYNAMIC SCHEDULING SCHEME FOR H.264/AVC DECODING ON MULTICORE ARCHITECTURE
Dung Vu, Jilong Kuang, Laxmi Bhuyan
Track: Multimedia Applications, Interface and Interaction
Session ID: OW3
OW4: Special session - Perceptual Visual Signal Coding and Display

Chairs: Henry Wu, The Royal Melbourne Institute of Technology (RMIT), Australia
Anil Fernando, University of Surrey, United Kingdom
Time: 13:40-15:00
Room: 102

Paper ID: 260
SSIM-INSPIRED PERCEPTUAL VIDEO CODING FOR HEVC
Abdul Rehman and Zhou Wang
Track: Multimedia Coding, Transcoding and Standards
Session ID: OW4

Paper ID: 512
PERCEPTION OF TEMPORAL PUMPING ARTIFACT IN VIDEO CODING WITH THE HIERARCHICAL PREDICTION STRUCTURE
Shuai Wan, Yanchao Gong, Fuzheng Yang
Track: Multimedia Quality Assessment and Quality Experien
Session ID: OW4

Paper ID: 558
SYSTEM DESIGN OF PERCEPTUAL QUALITY-REGULABLE H.264 VIDEO ENCODER
Guan-Lin Wu, Yu-Jie Fu, and Shao-Yi Chien
Track: Multimedia Quality Assessment and Quality Experien
Session ID: OW4

Paper ID: 410
SUBJECTIVE CROSSTALK ASSESSMENT METHODOLOGY FOR AUTO-STEREOSCOPIC DISPLAYS
Liyuan Xing, Jie Xu, Kim Skildheim, Andrew Perkis, Touradj Ebrahimi
Track: Multimedia Quality Assessment and Quality Experien
Session ID: OW4
Afternoon Tea

Time: 15:00-15:30

Research Overview
Chair: Kristen Grauman, University of Texas at Austin, USA
Time: 15:30-16:30
Room: 105

Poster Session (Wednesday)

PW1
Chairs: Roland Goecke, University of Canberra, Australia
Time: 16:30-18:00, 11th July 2012
Room: 103

Paper ID: 798
DISCOVERING SOCIAL PHOTO NAVIGATION PATTERNS
Luca Chiarandini, Michele Trevisiol, Alejandro Jaimes
.Track: Multimedia Content Analysis, Retrieval and Databases
Session ID: PW1

Paper ID: 665
GROUP RECOMMENDATION USING EXTERNAL FOLLOWEE FOR SOCIAL TV
Xiaoyan Wang, Lifeng Sun, ZhiWang and Da Meng
Track: Multimedia Applications, Interface and Interaction
Session ID: PW1

Paper ID: 459
MULTIMODAL LOCATION ESTIMATION OF CONSUMER MEDIA: DEALING WITH SPARSE TRAINING DATA
Jaeyoung Choi, Gerald Friedland, Venkatesan Ekambaram, Kannan Ramchandran
Track: Multimedia Content Analysis, Retrieval and Databases
Session ID: PW1

Paper ID: 257
EMPOWERING CROSS-DOMAIN INTERNET MEDIA WITH REAL-TIME TOPIC LEARNING FROM SOCIAL STREAMS
Suman D. Roy, Tao Mei, Wenjun Zeng, Shipeng Li
Track: Multimedia Applications, Interface and Interaction
Session ID: PW1
Paper ID: 747
MEDIA LIFECYCLE AND CONTENT ANALYSIS IN SOCIAL MEDIA COMMUNITIES
Lexing Xie, Hari Sundaram
Track: Multimedia Content Analysis, Retrieval and Databases
Session ID: PW1

Paper ID: 734
ONTOLOGICAL INFERENCE FRAMEWORK WITH JOINT ONTOLOGY CONSTRUCTION AND LEARNING FOR IMAGE UNDERSTANDING
Shen-Fu Tsai, Hao Tang, Feng Tang and Thomas S. Huang
Track: Multimedia Content Analysis, Retrieval and Databases
Session ID: PW1

Paper ID: 402
VIEW INDEPENDENT COMPUTER LIP-READING
Yuxuan Lan, Barry-John Theobald and Richard Harvey
Track: Multimedia Applications, Interface and Interaction
Session ID: PW1

Paper ID: 110
VIDEO GAZE PREDICTION: MINIMIZING PERCEPTUAL INFORMATION LOSS
Junyong You
Track: Multimedia Content Analysis, Retrieval and Databases
Session ID: PW1

Paper ID: 533
CLASS-BASED COLOR BAG OF WORDS FOR FASHION RETRIEVAL
Costantino Grana, Daniele Borghesani, Rita Cucchiara
Track: Multimedia Content Analysis, Retrieval and Databases
Session ID: PW1

Paper ID: 435
AN EFFICIENT QUERY-BY-SINGING/HUMMING SYSTEM BASED ON FAST FOURIER TRANSFORMS OF NOTE SEQUENCES
Wei-Ho Tsai, Yu-Ming Tu
Track: Multimedia Content Analysis, Retrieval and Databases
Session ID: PW1

Paper ID: 543
UNSUPERVISED MINING OF MULTIPLE AUDIOVISUALLY CONSISTENT CLUSTERS FOR VIDEO STRUCTURE ANALYSIS
Anh-Phuong TA1 and Guillaume Gravier
Track: Multimedia Content Analysis, Retrieval and Databases
Session ID: PW1
Paper ID: 738
A NOVEL VIDEO-BASED SMOKE DETECTION METHOD USING IMAGE SEPARATION
Hongda Tian, Wanqing Li, Lei Wang, Philip Ogunbona
Track: Multimedia Content Analysis, Retrieval and Databases
Session ID: PW1

Paper ID: 437
VISUAL SUMMARIZATION OF THE SOCIAL IMAGE COLLECTION USING IMAGE ATTRACTIVENESS LEARNED FROM SOCIAL BEHAVIORS
Jin-Woo Jeong, Hyun-Ki Hong, Jee-Uk Heu, Iqbal Qasim, Dong-Ho Lee
Track: Multimedia Content Analysis, Retrieval and Databases
Session ID: PW1

Paper ID: 776
REAL-TIME STORYBOARD GENERATION FOR H.264/AVC COMPRESSED VIDEOS
Pei Dong, Yong Xia, David Dagan Feng
Track: Multimedia Content Analysis, Retrieval and Databases
Session ID: PW1

Paper ID: 106
THE IMAGE MATTING METHOD WITH REGULARIZED MATTE
Junbin Gao, Manoranjan Paul, Jun Liu
Track: Multimedia Content Analysis, Retrieval and Databases
Session ID: PW1

Paper ID: 136
RADON-BASED AUDIO CLASSIFICATION FEATURES
Ruben Gonzalez
Track: Multimedia Content Analysis, Retrieval and Databases
Session ID: PW1

Paper ID: 564
VIDEO COPY DETECTION USING INCLINED VIDEO TOMOGRAPHY AND BAG-OF-VISUAL-WORDS
Hyun-seok Min, Se Min Kim, Wesley De Neve, Yong Man Ro
Track: Multimedia Content Analysis, Retrieval and Databases
Session ID: PW1

Paper ID: 574
IMAGE CLASSIFICATION WITH GROUP FUSION SPARSE REPRESENTATION
Yanan Liu
Track: Multimedia Content Analysis, Retrieval and Databases
Session ID: PW1
PW2
Chairs: Xavier Anguera, Telefonica, Spain
Time: 16:30-18:00, 11th July 2012
Room: 103

Paper ID: 5
JOINT EXAMPLE-BASED DEPTH MAP SUPER-RESOLUTION
Yanjie Li, Tianfan Xue, Lifeng Sun, Jianzhuang Liu
Track: Multimedia Signal Processing, System and Architect
Session ID: PW2

Paper ID: 371
SPATIOTEMPORAL SALIENCY DETECTION VIA SPARSE REPRESENTATION
Zhixiang Ren, Shenghua Gao, Deepu Rajan, Liang-Tien Chia, Yun Huang
Track: Multimedia Content Analysis, Retrieval and Databases
Session ID: PW2

Paper ID: 434
CONTEXT-AWARE SINGLE IMAGE RAIN REMOVAL
De-An Huang, Li-Wei Kang, Min-Chun Yang, Chia-Wen Lin, Yu-Chiang Frank Wang
Track: Multimedia Signal Processing, System and Architect
Session ID: PW2

Paper ID: 294
FROM 2D EXTRAPOLATION TO 1D INTERPOLATION: CONTENT ADAPTIVE IMAGE BIT-DEPTH EXPANSION
Pengfei Wan, Oscar C. Au, Ketan Tang, Yuanfang Guo, Lu Fang
Track: Multimedia Signal Processing, System and Architect
Session ID: PW2

Paper ID: 503
VIEW-IN Variant FALL DETECTION SYSTEM BASED ON SILHOUETTE AREA AND ORIENTATION
Behzad Mirmahboub, Shadrokh Samavi, Nader Karimi, Shahram Shirani
Track: Multimedia Applications, Interface and Interaction
Session ID: PW2

Paper ID: 744
NINE VOICES, ONE ARTIST: LINGUISTIC AND ACOUSTIC ANALYSIS
Talal Bin Amin, Pina Marziliano, James Sneed German
Track: Multimedia Content Analysis, Retrieval and Databases
Session ID: PW2
Paper ID: 475
MASK: ROBUST LOCAL FEATURES FOR AUDIO FINGERPRINTING
Xavier Anguera, Antonio Garzon and Tomasz Adamek
Track: Multimedia Content Analysis, Retrieval and Databases
Session ID: PW2

Paper ID: 624
CREATING THE SYDNEY YORK MORPHOLOGICAL AND ACOUSTIC RECORDINGS OF EARS DATABASE
Track: Multimedia Signal Processing, System and Architect
Session ID: PW2

Paper ID: 174
BLIND SPEECH DEREVERBERATION BASED ON A STATISTICAL MODEL
Xulei Bao, Jie Zhu, Zhen Huang
Track: Multimedia Signal Processing, System and Architect
Session ID: PW2

Paper ID: 247
SELF-LEARNING OF EDGE-PRESERVING SINGLE IMAGE SUPER-RESOLUTION
Min-Chun Yang, De-An Huang, Chih-Yun Tsai, Yu-Chiang Frank Wang
Track: Multimedia Signal Processing, System and Architect
Session ID: PW2

Paper ID: 255
PRINCIPAL COMPONENTS ANALYSIS-BASED EDGE-DIRECTED IMAGE INTERPOLATION
Bing Yang, Zhiyong Gao and Xiaoyun Zhang
Track: Multimedia Signal Processing, System and Architect
Session ID: PW2

Paper ID: 382
A ROBUST HOMOGRAPHY ESTIMATION METHOD BASED ON KEYPOINT CONSENSUS AND APPEARANCE SIMILARITY
Qing Yan, Yi Xu, Xiaokang Yang
Track: Multimedia Signal Processing, System and Architect
Session ID: PW2

Paper ID: 518
EXPLOITING IMAGE LOCAL AND NONLOCAL CONSISTENCY FOR MIXED GAUSSIAN-IMPULSE NOISE REMOVAL
Jian Zhang, Ruiqin Xiong, Chen Zhao, Siwei Ma, and Debin Zhao
Track: Multimedia Signal Processing, System and Architect
Session ID: PW2
**Paper ID: 175**
FRAME RATE UP-CONVERSION FOR DEPTH-BASED 3D VIDEO
Qingchun Lu, Xiangzhong Fang, Chong Xu, Yongzhe Wang
*Track: Multimedia Signal Processing, System and Architect*
*Session ID: PW2*

**Paper ID: 195**
COLOR FILTER ARRAY DEMOSAICKING USING SELF-VALIDATION FRAMEWORK
Ting-Chun Wang, Yi-Nung Liu and Shao-Yi Chien
*Track: Multimedia Signal Processing, System and Architect*
*Session ID: PW2*

**Paper ID: 639**
EFFICIENT SINGLE IMAGE SUPER-RESOLUTION VIA GRAPH EMBEDDING
Junjun Jiang, Ruimin Hu, Zhen Han, Kebin Huang, and Tao Lu
*Track: Multimedia Signal Processing, System and Architect*
*Session ID: PW2*

**Paper ID: 153**
EXPLOITING STRUCTURED SPARSITY FOR IMAGE DEBLURRING
Haichao Zhang, Yanning Zhang and Thomas S. Huang
*Track: Multimedia Signal Processing, System and Architect*
*Session ID: PW2*
PW3
Chairs: Ce Zhu, Nanyang Technological University, Singapore
Time: 16:30-18:00, 11th July 2012
Room: 104

Paper ID: 730
SIFT-BASED IMAGE COMPRESSION
Huanjing Yue, Xiaoyan Sun, Feng Wu, Jingyu Yang
Track: Multimedia Coding, Transcoding and Standards
Session ID: PW3

Paper ID: 682
LAGRANGE-BASED VIDEO ENCODER OPTIMISATION TO ENHANCE MOTION REPRESENTATION IN THE COMPRESSED-DOMAIN
R.M.T.P. Rajakaruna, W.A.C. Fernando and J. Calic
Track: Multimedia Coding, Transcoding and Standards
Session ID: PW3

Paper ID: 751
A MODEL PREDICTIVE CONTROLLER FOR FRAME-LEVEL RATE CONTROL IN MULTIVIEW VIDEO CODING
Bruno Boessio Vizzotto, Bruno Zatt, Muhammad Shafique, Sergio Bampi, Jörg Henkel
Track: Multimedia Coding, Transcoding and Standards
Session ID: PW3

Paper ID: 155
AN ADAPTIVE DYNAMIC SCHEDULING SCHEME FOR H.264/AVC DECODING ON MULTICORE ARCHITECTURE
Dung Vu, Jilong Kuang, Laxmi Bhuyan
Track: Multimedia Applications, Interface and Interaction
Session ID: PW3

Paper ID: 260
SSIM-INSPIRED PERCEPTUAL VIDEO CODING FOR HEVC
Abdul Rehman and Zhou Wang
Track: Multimedia Coding, Transcoding and Standards
Session ID: PW3

Paper ID: 512
PERCEPTION OF TEMPORAL PUMPING ARTIFACT IN VIDEO CODING WITH THE HIERARCHICAL PREDICTION STRUCTURE
Shuai Wan, Yanchao Gong, Fuzheng Yang
Track: Multimedia Quality Assessment and Quality Experience
Session ID: PW3
**Paper ID: 558**
**SYSTEM DESIGN OF PERCEPTUAL QUALITY-REGULABLE H.264 VIDEO ENCODER**
Guan-Lin Wu, Yu-Jie Fu, and Shao-Yi Chien
Track: Multimedia Quality Assessment and Quality Experience
Session ID: PW3

**Paper ID: 410**
**SUBJECTIVE CROSSTALK ASSESSMENT METHODOLOGY FOR AUTO-STEREOSCOPIC DISPLAYS**
Liyuan Xing, Jie Xu, Kim Skildheim, Andrew Perkis, Touradj Ebrahimi
Track: Multimedia Quality Assessment and Quality Experience
Session ID: PW3

**Paper ID: 414**
**CLUSTERING BASED SEARCH ALGORITHM FOR MOTION ESTIMATION**
Ke Chen, Zhong Zhou, Wei Wu
Track: Multimedia Coding, Transcoding and Standards
Session ID: PW3

**Paper ID: 305**
**ENHANCED PRINCIPAL COMPONENT USING POLAR COORDINATE PCA FOR STEREO AUDIO CODING**
Shi Dong, Ruimin Hu, Weiping Tu, Xiang Zheng, Junjun Jiang, Song Wang
Track: Multimedia Coding, Transcoding and Standards
Session ID: PW3

**Paper ID: 707**
**SYNTHESIZED VIEW DISTORTION BASED 3D VIDEO CODING FOR EXTRAPOLATION AND INTERPOLATION OF VIEWS**
Gerhard Tech, Heiko Schwarz, Karsten Müller and Thomas Wiegand
Track: Multimedia Coding, Transcoding and Standards
Session ID: PW3

**Paper ID: 323**
**PERCEIVED PICTURE QUALITY OF FRAME-COMPATIBLE 3DTV VIDEO FORMATS**
Filippo Speranza, Ron Renaud, Andre Vincent and Wa J. Tam
Track: Multimedia Quality Assessment and Quality Experience
Session ID: PW3

**Paper ID: 579**
**A JOINT TEXTURE/DEPTH EDGE-DIRECTED UP-SAMPLING ALGORITHM FOR DEPTH MAP CODING**
Huiping Deng, Li Yu, Jinbo Qiu and Juntao Zhang
Track: Multimedia Coding, Transcoding and Standards
Session ID: PW3

Paper ID: 589
FAST TRANSCODING FROM H.264 AVC TO HIGH EFFICIENCY VIDEO CODING
Dong Zhang, Bin Li, Jizheng Xu, and Houqiang Li
Track: Multimedia Coding, Transcoding and Standards
Session ID: PW3

Paper ID: 729
MOTION VECTORS MERGING: LOW COMPLEXITY PREDICTION UNIT DECISION HEURISTIC FOR THE INTER-PREDICTION OF HEVC ENCODERS
Felipe Sampaio, Sergio Bampi, Mateus Grellert, Luciano Agostini, Julio Mattos
Track: Multimedia Coding, Transcoding and Standards
Session ID: PW3

Paper ID: 275
OPTIMAL BIT-ALLOCATION FOR WAVELET-BASED SCALABLE VIDEO CODING
Guan-Ju Peng, Wen-Liang Hwang, Sao-Jie Chen
Track: Multimedia Coding, Transcoding and Standards
Session ID: PW3
PW4
Chairs: Chia-Wen Lin, National Tsing Hua University, Taiwan
Time: 16:30-18:00, 11th July 2012
Room: 104

Paper ID: 333
POOLING SEARCH: SERUM SAMPLES TEST SIMULATED VIDEO FINGERPRINT SEARCH
Jincao Yao, Huimin Yu, Roland Hu
Track: Multimedia Applications, Interface and Interaction
Session ID: PW4

Paper ID: 115
FINDING SUBGROUPS IN A FLICKR GROUP
Sumit Negi, Santanu Chaudhury
Track: Multimedia Content Analysis, Retrieval and Databases
Session ID: PW4

Paper ID: 542
BRINGING VIDEOS TO SOCIAL MEDIA
Stephan Kopf, Stefan Wilk, Wolfgang Effelsberg
Track: Multimedia Applications, Interface and Interaction
Session ID: PW4

Paper ID: 736
SEE-THROUGH IMAGE ENHANCEMENT THROUGH SENSOR FUSION
Bo Fu, Mao Ye, Ruigang Yang, Cha Zhang
Track: Multimedia Applications, Interface and Interaction
Session ID: PW4

Paper ID: 324
VIDEO BASED REAL-WORLD REMOTE TARGET TRACKING ON SMARTPHONES
Qia Wang, Alex Lobzhanidze, Hyun I. Jang, Wenjun Zeng and Yi Shang
Track: Multimedia Applications, Interface and Interaction
Session ID: PW4

Paper ID: 562
LUMIPEN: PROJECTION-BASED MIXED REALITY FOR DYNAMIC OBJECTS
Kohei Okumura, Hiromasa Oku and Masatoshi Ishikawa
Track: Multimedia Applications, Interface and Interaction
Session ID: PW4

Paper ID: 108
REAL-TIME HAND POSE ESTIMATION FROM RGB-D SENSOR
Yuan Yao, Yuan Yao, Yun Fu  
*Track: Multimedia Applications, Interface and Interaction*  
*Session ID: PW4*

**Paper ID: 192**  
**ON-LINE OBJECT RECONSTRUCTION AND TRACKING FOR 3D INTERACTION**  
Youji Feng, Yihong Wu, Lixin Fan  
*Track: Multimedia Applications, Interface and Interaction*  
*Session ID: PW4*

**Paper ID: 134**  
**ADAPTIVE CODING WITH CPU ENERGY CONSERVATION FOR MOBILE VIDEO CALLS**  
Haiyang Ma, Roger Zimmermann  
*Track: Multimedia Applications, Interface and Interaction*  
*Session ID: PW4*

**Paper ID: 576**  
**AN IMPROVED TEMPLATE-BASED APPROACH TO KEYWORD SPOTTING APPLIED TO THE SPOKEN CONTENT OF USER GENERATED VIDEO BLOGS**  
UOW M. S. Barakat, C. H. Ritz, D. A. Stirling  
*Track: Multimedia Content Analysis, Retrieval and Databases*  
*Session ID: PW4*

**Paper ID: 733**  
**A CONTEXT-AWARE DESCRIPTION FOR CONTENT FILTERING ON VIDEO SHARING SOCIAL NETWORKS**  
Antonio da Luz*, Eduardo Valle, Arnaldo de A. Araújo  
*Track: Multimedia Applications, Interface and Interaction*  
*Session ID: PW4*

**Paper ID: 766**  
**PREDICTING IMAGE POPULARITY IN AN INCOMPLETE SOCIAL MEDIA COMMUNITY BY A WEIGHTED BI-PARTITE GRAPH**  
Xiang Niu, Lusong Li, Tao Mei, Jialie Shen, Ke Xu  
*Track: Multimedia Applications, Interface and Interaction*  
*Session ID: PW4*

**Paper ID: 280**  
**ERROR MODELING AND ESTIMATION FUSION FOR INDOOR LOCALIZATION**  
Weipeng Zhuo, Bo Zhang, S.-H. Gary Chan, Edward Y. Chang  
*Track: Multimedia Applications, Interface and Interaction*  
*Session ID: PW4*
ICME 2012 Conference Banquet in Melbourne Casio function hall

Time: 19:00-22:00

Best Papers and Best Student Papers Outcome Announcement
12th July 2012, Morning

Keynote: Baining Guo
Microsoft Research Asia, China
Time: 9:00-10:00
Room: 105

Morning Tea
Time: 10:00-10:30

OH1: Multimedia Content Analysis, understanding and Retrieval IV
Chairs: Leixing Xie, Australian National University, Australia
        Mei-Ling Shyu, University of Miami, USA
Time: 10:30-11:50
Room: 103

Paper ID: 775
VIDEO EVENT DETECTION USING TEMPORAL PYRAMIDS OF VISUAL SEMANTICS WITH KERNEL OPTIMIZATION AND MODEL SUBSPACE BOOSTING
Noel C. F. Codella, Apostol Natsev, Gang Hua, Matthew Hill, Liangliang Cao, Leiguang Gong, John R. Smith
Track: Multimedia Content Analysis, Retrieval and Databas
Session ID: OH1

Paper ID: 169
GROUPLET-BASED DISTANCE METRIC LEARNING FOR VIDEO CONCEPT DETECTION
Wei Jiang, Alexander C. Loui
Track: Multimedia Content Analysis, Retrieval and Databas
Session ID: OH1

Paper ID: 234
RATIO VOTING: A NEW VOTING STRATEGY FOR LARGE-SCALE IMAGE RETRIEVAL
Yusuke Uchida, Koichi Takagi, Shigeyuki Sakazawa
Track: Multimedia Content Analysis, Retrieval and Databas
Session ID: OH1

Paper ID: 336
TOPOLOGY PRESERVED REGULAR SUPERPIXEL
Dai Tang, Huazhu Fu, Xiaochun Cao
Track: Multimedia Applications, Interface and Interaction
Session ID: OH1
OH2: Multimedia System and Architecture

Chairs: Gary Chan, The Hong Kong University of Science and Technology, Hong Kong
Jeroen Vendrig, Canon Information Systems Research Australia (CiSRA), Australia
Time: 10:30-11:50
Room: 101

Paper ID: 287
GPU AND CPU COOPERATIVE ACCELERATION FOR FACE DETECTION ON MODERN PROCESSORS
Eric Li, Bin Wang, Liu Yang, Ya-ti Peng, Yangzhou Du, Yimin Zhang, Yi-Jen Chiu
Track: Multimedia Signal Processing, System and Architect
Session ID: OH2

Paper ID: 203
AREA AND MEMORY EFFICIENT ARCHITECTURES FOR 3D BLU-RAY-COMPLIANT MULTIMEDIA PROCESSORS
Chi-Cheng Ju, Tsu-Ming Liu, Yeh-Lin Chu, Chuang-Chi Chiou, Bin-Jung Tsai, Te-Chi Hsiao, Ginny Chen, Pin-Huan Hsu, Chih-Ming Wang, Chun-Chia Chen, Hue-Min Lin, Chia-Yun Cheng, Min-Hao Chiou, Sheng-Jen Wang, Jiun-Yuan Wu, Yuan-Chun Lin, Yung-Chang Chang, Chu
Track: Multimedia Signal Processing, System and Architect
Session ID: OH2

Paper ID: 342
ENERGY-AWARE OPERATION OF BLACK BOX SURVEILLANCE CAMERAS UNDER EVENT UNCERTAINTY AND MEMORY CONSTRAINT
Giwon Kim, Jungsoo Kim, Jongpil Jung, Chong-Min Kyung
Track: Multimedia Security and Privacy
Session ID: OH2

Paper ID: 626
A UNIFIED 4/8/16/32-POINT INTEGER IDCT ARCHITECTURE FOR MULTIPLE VIDEO CODING STANDARDS
Sha Shen, Weiwei Shen, Yibo Fan, Xiaoyang Zeng
Track: Multimedia Coding, Transcoding and Standards
Session ID: OH2
OH3: Multimedia Applications

Chairs: Jingdong Wang, Microsoft Research Asia
       Martha Larson, Delft University of Technology, The Netherland
Time: 10:30-11:50
Room: 104

Paper ID: 537
3D HEAD POSE ESTIMATION BASED ON SCENE FLOW AND GENERIC HEAD MODEL
Peng Liu, Michael Reale, Lijun Yin
Track: Multimedia Applications, Interface and Interaction
Session ID: OH3

Paper ID: 328
EFFICIENT SUPER-RESOLUTION BY FINER SUB-PIXEL MOTION PREDICTION AND BILATERAL FILTERING
Damith J. Mudugamuwa, Xiangjian He, Wenjing Jia
Track: Multimedia Signal Processing, System and Architect
Session ID: OH3

Paper ID: 285
AUTOMATIC VIDEO EDITING FOR VIDEO-BASED INTERACTIVE STORYTELLING
Edirlei Soares de Lima, Bruno Feijó, Cesar Pozzer, Angelo Ciarlini, Antonio Furtado
Track: Multimedia Content Analysis, Retrieval and Databases
Session ID: OH3

Paper ID: 759
CROWDSOURCED LEARNING TO PHOTOGRAPH VIA MOBILE DEVICES
Wenyuan Yin, Tao Mei, Chang Wen Chen
Track: Multimedia Applications, Interface and Interaction
Session ID: OH3
OH4: Multimedia Perceptual Assessment and Signal Processing

Chairs: Ebrahimi Touradj, EPFL, Switzerland
       Shao-Yi Chien, National Taiwan University, Taiwan
Time: 10:30-11:50
Room: 102

**Paper ID: 319**

PAUSE INTENSITY: A NO-REFERENCE QUALITY ASSESSMENT METRIC FOR VIDEO STREAMING IN TCP NETWORKS
Colin Bailey, Mirghiasaldin Seyedebrahimi, Xiao-Hong Peng

*Track: Multimedia Quality Assessment and Quality Experien*
*Session ID: OH4*

**Paper ID: 158**

VISUAL CONTRAST SENSITIVITY GUIDED VIDEO QUALITY ASSESSMENT
Junyong You, Liyuan Xing, Andrew Perkis, Touradj Ebrahimi

*Track: Multimedia Quality Assessment and Quality Experien*
*Session ID: OH4*

**Paper ID: 248**

GAUSSIAN NOISE LEVEL ESTIMATION IN SVD DOMAIN FOR IMAGES
Wei Liu, Weisi Lin

*Track: Multimedia Quality Assessment and Quality Experien*
*Session ID: OH4*

**Paper ID: 672**

REDUCING BLOCKING ARTIFACTS IN COMPRESSED IMAGES VIA TRANSFORM-DOMAIN NON-LOCAL COEFFICIENTS ESTIMATION
Xinfeng Zhang, Ruiqin Xiong, Siwei Ma, Wen Gao

*Track: Multimedia Signal Processing, System and Architect*
*Session ID: OH4*
Lunch
Time: 11:50-13:10

12th July 2012, Afternoon

OH5: Multimedia Content Analysis, understanding and Retrieval V
Chairs: Tao Mei, MSRA, China
       Jingdong Wang, MSRA, China
Time: 13:10-14:30
Room: 103

Paper ID: 302
FAST NEAR-DUPLICATE VIDEO RETRIEVAL VIA MOTION TIME SERIES MATCHING
John R. Zhang, Jennifer Y. Ren, Fangzhe Chang, Thomas L. Wood, John R. Kender
Track: Multimedia Content Analysis, Retrieval and Databases
Session ID: OH5

Paper ID: 495
3D STORYBOARDS FOR INTERACTIVE VISUAL SEARCH
Klaus Schoeffmann, David Ahlström, Laszlo Böszörmenyi
Track: Multimedia Applications, Interface and Interaction
Session ID: OH5

Paper ID: 510
FROM TEXT DETECTION IN VIDEOS TO PERSON IDENTIFICATION
Johann Poignant, Laurent Besacier, Georges Quénot, Franck Thollard
Track: Multimedia Content Analysis, Retrieval and Databases
Session ID: OH5

Paper ID: 749
LEVERAGING CONCEPT ASSOCIATION NETWORK FOR MULTIMEDIA RARE CONCEPT MINING AND RETRIEVAL
Tao Meng, Mei-Ling Shyu
Track: Multimedia Content Analysis, Retrieval and Databases
Session ID: OH5
OH6: Multimedia Signal Processing

Chairs: Deepu Rajan, Nanyang Technological University, Singapore
Time: 13:10-14:30
Room: 104

**Paper ID: 548**
A NOVEL PROGRESSIVE IMAGE SCANNING AND RECONSTRUCTION SCHEME BASED ON COMPRESSED SENSING AND LINEAR PREDICTION
Giulio Coluccia, Enrico Magli
*Track: Multimedia Signal Processing, System and Architect*
*Session ID: OH6*

**Paper ID: 379**
GRAPH-BASED SEQUENTIAL PARTICLE FILTERING FRAMEWORK FOR ARTICULATED MOTION ANALYSIS
Jing Huang and Dan Schonfeld
*Track: Multimedia Signal Processing, System and Architect*
*Session ID: OH6*

**Paper ID: 474**
A NOVEL VIEW-LEVEL TARGET BIT RATE DISTRIBUTION ESTIMATION TECHNIQUE FOR REAL-TIME MULTI-VIEW VIDEO PLUS DEPTH
Mario Cardina, Carl J. Debono
*Track: Multimedia Signal Processing, System and Architect*
*Session ID: OH6*

**Paper ID: 506**
COMBINED INTER-FRAME AND INTER-COLOR PREDICTION FOR COLOR VIDEO DENOISING
Jingjing Dai, Oscar C. Au, Chao Pang and Feng Zou
*Track: Multimedia Signal Processing, System and Architect*
*Session ID: OH6*
OH7: 3D Media
Chairs: Cha Zhang, Microsoft, USA
Time: 13:10-14:30
Room: 101

Paper ID: 466
AN AUGMENTED REALITY 3D POP-UP BOOK: THE DEVELOPMENT OF A MULTIMEDIA PROJECT FOR ENGLISH LANGUAGE TEACHING
Poonsri Vate-U-Lan
Track: Multimedia Creation and Synthesis and 3D Media
Session ID: OH7

Paper ID: 267
A NOVEL FRAMEWORK FOR 3D COMPUTER ANIMATION SYSTEMS FOR NONPROFESSIONAL USERS USING AN AUTOMATIC RIGGING ALGORITHM
Natapon Pantuwong and Masanori Sugimoto
Track: Multimedia Creation and Synthesis and 3D Media
Session ID: OH7

Paper ID: 124
UNSUPERVISED CONVERSION OF 3D MODELS FOR INTERACTIVE METAVERSES
Jeff Terrace, Ewen Cheslack-Postava, Philip Levis, and Michae J. Freedman
Track: Multimedia Creation and Synthesis and 3D Media
Session ID: OH7
OH8: Media Coding and Delivery

Chairs: Manzur Murshed, Monash University, Australia
        Gary Chan, The Hong Kong University of Science and Technology, Hong Kong
Time: 13:10-14:30
Room: 102

**Paper ID: 427**
LIPS: A LIGHTWEIGHT INTER-LAYER PROTECTION SCHEME FOR SCALABLE VIDEO CODING
Shih-Ying Chang, Hsin-Ta Chiao
*Track: Multimedia Networking and Communications*
*Session ID: OH8*

**Paper ID: 196**
EFFECTIVE SPATIAL DATA BROADCASTING
Chung-Hua Chu
*Track: Multimedia Networking and Communications*
*Session ID: OH8*

**Paper ID: 550**
PRIME: PRE-REGISTRATION FOR IMS MOBILITY ENHANCEMENT
Abolfazl Nazari, Jason But, Philip Branch, Hai Vu
*Track: Multimedia Networking and Communications*
*Session ID: OH8*

**Paper ID: 716**
COMPLEXITY MODELING OF THE MOTION COMPENSATION PROCESS OF THE H.264/AVC VIDEO CODING STANDARD
Mehdi Semsarzadeh, Mohsen Jamali Langroodi, Mahmoud Reza Hashemi, Shervin Shirmohammadi
*Track: Multimedia Coding, Transcoding and Standards*
*Session ID: OH8*
Research Overview:

Afternoon Tea
Time: 14:30-15:00

Research Overview:
Chairs: David Taubman, the University of New South Wales, Australia
Time: 15:00-16:00
Room: 105

Poster Session (Thursday)

PH1
Chairs: Mei-Ling Shyu, University of Miami, USA
Time: 16:00-17:30, 12th July 2012
Room: 103

Paper ID: 775
VIDEO EVENT DETECTION USING TEMPORAL PYRAMIDS OF VISUAL SEMANTICS WITH KERNEL OPTIMIZATION AND MODEL SUBSPACE BOOSTING
Noel C. F. Codella, Apostol Natsev, Gang Hua, Matthew Hill, Liangliang Cao, Leiguang Gong, John R. Smith
Track: Multimedia Content Analysis, Retrieval and Databas
Session ID: PH1

Paper ID: 169
GROUPLET-BASED DISTANCE METRIC LEARNING FOR VIDEO CONCEPT DETECTION
Wei Jiang, Alexander C. Loui
Track: Multimedia Content Analysis, Retrieval and Databas
Session ID: PH1

Paper ID: 234
RATIO VOTING: A NEW VOTING STRATEGY FOR LARGE-SCALE IMAGE RETRIEVAL
Yusuke Uchida, Koichi Takagi, Shigeyuki Sakazawa
Track: Multimedia Content Analysis, Retrieval and Databas
Session ID: PH1

Paper ID: 336
TOPOLOGY PRESERVED REGULAR SUPERPIXEL
Dai Tang, Huazhu Fu, Xiaochun Cao
Track: Multimedia Applications, Interface and Interaction
Session ID: PH1
**Paper ID: 302**  
FAST NEAR-DUPLICATE VIDEO RETRIEVAL VIA MOTION TIME SERIES MATCHING  
John R. Zhang, Jennifer Y. Ren, Fangzhe Chang, Thomas L. Wood, John R. Kender  
*Track: Multimedia Content Analysis, Retrieval and Databases*  
*Session ID: PH1*

**Paper ID: 495**  
3D STORYBOARDS FOR INTERACTIVE VISUAL SEARCH  
Klaus Schoeffmann, David Ahlström, Laszlo Böszörmenyi  
*Track: Multimedia Applications, Interface and Interaction*  
*Session ID: PH1*

**Paper ID: 510**  
FROM TEXT DETECTION IN VIDEOS TO PERSON IDENTIFICATION  
Johann Poignant, Laurent Besacier, Georges Quénot, Franck Thollard  
*Track: Multimedia Content Analysis, Retrieval and Databases*  
*Session ID: PH1*

**Paper ID: 749**  
LEVERAGING CONCEPT ASSOCIATION NETWORK FOR MULTIMEDIA RARE CONCEPT MINING AND RETRIEVAL  
Tao Meng, Mei-Ling Shyu  
*Track: Multimedia Content Analysis, Retrieval and Databases*  
*Session ID: PH1*

**Paper ID: 608**  
LARGE SCALE PARTIAL-DUPLICATE IMAGE RETRIEVAL USING INVARIANCE WEIGHT OF SIFT AND SROA GEOMETRIC CONSISTENCY  
Zhi Li, Guizhong Liu, Yana Ma  
*Track: Multimedia Content Analysis, Retrieval and Databases*  
*Session ID: PH1*

**Paper ID: 645**  
WHO'S WHO IN A SPORTS VIDEO? AN INDIVIDUAL LEVEL SPORTS VIDEO INDEXING SYSTEM  
Shih-Wei Sun, Wen-Huang Cheng, Yao-Ling Hung, Ivy Fan, Chris Liu, Jacqueline Hung, Chia-Kai Ling and Hong-Yuan Mark Liao  
*Track: Multimedia Applications, Interface and Interaction*  
*Session ID: PH1*

**Paper ID: 788**  
OBJECT DETECTION BASED ON CO-OCCURRENCE GMULBP FEATURES  
Jingsong Xu, Qiang Wu, Jian Zhang, Zhenmin Tang
Track: Multimedia Content Analysis, Retrieval and Databas
Session ID: PH1

Paper ID: 286
LIVE SEMANTIC SPORT HIGHLIGHT DETECTION BASED ON ANALYZING TWEETS OF TWITTER
Liang-Chi Hsieh, Ching-Wei Lee, Tzu-Hsuan Chiu, Winston Hsu
Track: Multimedia Content Analysis, Retrieval and Databas
Session ID: PH1

Paper ID: 399
IMPROVING RELEVANCE FEEDBACK FOR IMAGE RETRIEVAL WITH ASYMMETRIC SAMPLING
Biao Niu, Jian Cheng, Hanqing Lu
Track: Multimedia Content Analysis, Retrieval and Databas
Session ID: PH1

Paper ID: 406
CONTENTED-BASED LARGE SCALE WEB AUDIO COPY DETECTION
Lezi Wang*, BUPT; Dong Yuan, ; hongliang bai, France Telecom research & development - Beijing; chong huang, bupt
Track: Multimedia Content Analysis, Retrieval and Databas
Session ID: PH1

Paper ID: 511
EFFICIENT LEVEL OF SERVICE CLASSIFICATION FOR TRAFFIC MONITORING IN THE COMPRESSED VIDEO DOMAIN
Roland Tusch, Felix Pletzer, Armin Krätschmer, Laszlo Böszörményi, Bernhard Rinner, Thomas Mariacher, Manfred Harrer
Track: Multimedia Content Analysis, Retrieval and Databas
Session ID: PH1

Paper ID: 679
A LOCAL TEMPORAL CONTEXT-BASED APPROACH FOR TV NEWS STORY SEGMENTATION
Émilie Dumont, Georges Quénot
Track: Multimedia Content Analysis, Retrieval and Databas
Session ID: PH1

Paper ID: 121
EVALUATING GAUSSIAN LIKE IMAGE REPRESENTATIONS OVER LOCAL FEATURES
Yu-Chuan Su, Guan-Long Wu, Tzu-Hsuan Chiu, Winston H. Hsu, Kuo-Wei Chang
Track: Multimedia Content Analysis, Retrieval and Databas
Session ID: PH1
Paper ID: 149
A SYNAESTHETIC APPROACH FOR IMAGE SLIDESHOW GENERATION
Xiang Yangyang, Mohan S. Kankanhalli
Track: Multimedia Creation and Synthesis and 3D Media
Session ID: PH1
**PH2**

Chairs: Jeroen Vendrig, Canon Information Systems Research Australia (CiSRA)

Time: 16:00-17:30, 12th July 2012

Room: 103

**Paper ID: 287**

GPU AND CPU COOPERATIVE ACCELERATION FOR FACE DETECTION ON MODERN PROCESSORS

Eric Li, Bin Wang, Liu Yang, Ya-ti Peng, Yangzhou Du, Yimin Zhang, Yi-Jen Chiu

*Track: Multimedia Signal Processing, System and Architect  Session ID: PH2*

**Paper ID: 203**

AREA AND MEMORY EFFICIENT ARCHITECTURES FOR 3D BLU-RAY-COMPLIANT MULTIMEDIA PROCESSORS

Chi-Cheng Ju, Tsu-Ming Liu, Yeh-Lin Chu, Chuang-Chi Chiou, Bin-Jung Tsai, Te-Chi Hsiao, Ginny Chen, Pin-Huan Hsu, Chih-Ming Wang, Chun-Chia Chen, Hue-Min Lin, Chia-Yun Cheng, Min-Hao Chiu, Sheng-Jen Wang, Jiun-Yuan Wu, Yuan-Chun Lin, Yung-Chang Chang, Chu

*Track: Multimedia Signal Processing, System and Architect  Session ID: PH2*

**Paper ID: 342**

ENERGY-AWARE OPERATION OF BLACK BOX SURVEILLANCE CAMERAS UNDER EVENT UNCERTAINTY AND MEMORY CONSTRAINT

Giwon Kim, Jungsoo Kim, Jongpil Jung, Chong-Min Kyung

*Track: Multimedia Security and Privacy  Session ID: PH2*

**Paper ID: 626**

A UNIFIED 4/8/16/32-POINT INTEGER IDCT ARCHITECTURE FOR MULTIPLE VIDEO CODING STANDARDS

Sha Shen, Weiwei Shen, Yibo Fan, Xiaoyang Zeng

*Track: Multimedia Coding, Transcoding and Standards  Session ID: PH2*

**Paper ID: 548**

A NOVEL PROGRESSIVE IMAGE SCANNING AND RECONSTRUCTION SCHEME BASED ON COMPRESSED SENSING AND LINEAR PREDICTION

Giulio Coluccia, Enrico Magli

*Track: Multimedia Signal Processing, System and Architect*
Session ID: PH2

Paper ID: 379
GRAPH-BASED SEQUENTIAL PARTICLE FILTERING FRAMEWORK FOR ARTICULATED MOTION ANALYSIS
Jing Huang and Dan Schonfeld
Track: Multimedia Signal Processing, System and Architect
Session ID: PH2

Paper ID: 474
A NOVEL VIEW-LEVEL TARGET BIT RATE DISTRIBUTION ESTIMATION TECHNIQUE FOR REAL-TIME MULTI-VIEW VIDEO PLUS DEPTH
Mario Cordina, Carl J. Debono
Track: Multimedia Signal Processing, System and Architect
Session ID: PH2

Paper ID: 506
COMBINED INTER-FRAME AND INTER-COLOR PREDICTION FOR COLOR VIDEO DENOISING
Jingjing Dai, Oscar C. Au, Chao Pang and Feng Zou
Track: Multimedia Signal Processing, System and Architect
Session ID: PH2

Paper ID: 233
DUAL-TRANSFORM BASED NOISE ESTIMATION
Chongwu Tang, Xiaokang Yang and Guangtao Zhai
Track: Multimedia Signal Processing, System and Architect
Session ID: PH2

Paper ID: 354
PARALLELIZATION DESIGN OF IRREGULAR ALGORITHMS OF VIDEO PROCESSING ON GPUS
Huayou Su, Jun Chai, Mei Wen, Ju Ren, Chunyuan Zhang
Track: Multimedia Signal Processing, System and Architect
Session ID: PH2

Paper ID: 652
MEASUREMENT OF HUMAN SENSITIVITY ACROSS THE VERTICAL-TEMPORAL VIDEO SPECTRUM FOR INTERLACING FILTER SPECIFICATION
Katy Noland
Track: Multimedia Signal Processing, System and Architect
Session ID: PH2

Paper ID: 678
SAMPLING TECHNIQUE ANALYSIS OF NYSTROM APPROXIMATION IN PIXEL-WISE AFFINITY MATRIX
Chieh-Chi Kao, Jui-Hsin Lai, Ja-Ling Wu, Shao-Yi Chien  
**Track:** Multimedia Signal Processing, System and Architect  
**Session ID:** PH2

**Paper ID:** 199  
**Title:** FAST VIDEO STABILIZATION IN THE COMPRESSED DOMAIN  
Manish Okade, P. K. Biswas  
**Track:** Multimedia Signal Processing, System and Architect  
**Session ID:** PH2

**Paper ID:** 604  
**Title:** NOVEL BINAURAL SPECTRO-TEMPORAL ALGORITHM FOR SPEECH ENHANCEMENT IN LOW SNR ENVIRONMENTS  
Po-Hsun Sung, Bo-Wei Cheng, Ling-Sheng Jang and Jhing-Fa Wang  
**Track:** Multimedia Signal Processing, System and Architect  
**Session ID:** PH2

**Paper ID:** 405  
**Title:** DISCOVERING THE BEST FEATURE EXTRACTION AND SELECTION ALGORITHMS FOR SPONTANEOUS FACIAL EXPRESSION RECOGNITION  
Ligang Zhang, Dian Tjondronegoro and Vinod Chandran  
**Track:** Multimedia Signal Processing, System and Architect  
**Session ID:** PH2

**Paper ID:** 326  
**Title:** SALIENT OBJECT DETECTION THROUGH OVER-SEGMENTATION  
Xuejie Zhang, Zhixiang Ren, Deepu Rajan, Yiqun Hu  
**Track:** Multimedia Signal Processing, System and Architect  
**Session ID:** PH2

**Paper ID:** 513  
**Title:** EEG-BASED DOMINANCE LEVEL RECOGNITION FOR EMOTION-ENABLED INTERACTION  
Yisi Liu, Olga Sourina  
**Track:** Multimedia Signal Processing, System and Architect  
**Session ID:** PH2

**Paper ID:** 430  
**Title:** IMAGE SUPER-RESOLUTION VIA LOW-PASS FILTER BASED MULTI-SCALE IMAGE DECOMPOSITION  
Shuyuan Zhu, Bing Zeng, Shuicheng Yan  
**Track:** Multimedia Signal Processing, System and Architect  
**Session ID:** PH2
PH3
Time: 16:00-17:30, 12th July 2012
Chairs: Ruiqin Xiong, Peking University, China
Room: 104

Paper ID: 427
LIPS: A LIGHTWEIGHT INTER-LAYER PROTECTION SCHEME FOR SCALABLE VIDEO CODING
Shih-Ying Chang, Hsin-Ta Chiao
Track: Multimedia Networking and Communications
Session ID: PH3

Paper ID: 196
EFFECTIVE SPATIAL DATA BROADCASTING
Chung-Hua Chu
Track: Multimedia Networking and Communications
Session ID: PH3

Paper ID: 550
PRIME: PRE-REGISTRATION FOR IMS MOBILITY ENHANCEMENT
Abolfazl Nazari, Jason But, Philip Branch, Hai Vu
Track: Multimedia Networking and Communications
Session ID: PH3

Paper ID: 716
COMPLEXITY MODELING OF THE MOTION COMPENSATION PROCESS OF THE H.264/AVC VIDEO CODING STANDARD
Mehdi Semsarzadeh, Mohsen Jamali Langroodi, Mahmoud Reza Hashemi, Shervin Shirmohammadi
Track: Multimedia Coding, Transcoding and Standards
Session ID: PH3

Paper ID: 505
FINE-GRANULAR PARALLEL EBCOT AND OPTIMIZATION WITH CUDA FOR DIGITAL CINEMA IMAGE COMPRESSION
Fang Wei, Qiu Cui, Ye Li
Track: Multimedia Coding, Transcoding and Standards
Session ID: PH3

Paper ID: 527
AN OPTIMIZED HARDWARE VIDEO ENCODER FOR AVS WITH LEVEL C+ DATA REUSE SCHEME FOR MOTION ESTIMATION
Kaijin Wei, Rongwei Zhou, Shanghang Zhang, Huizhu Jia, Don Xie, and Wen Gao
Track: Multimedia Coding, Transcoding and Standards
Session ID: PH3
Paper ID: 555  
MOTION BASED PERCEPTUAL DISTORTION AND RATE OPTIMIZATION FOR VIDEO CODING  
Xi Wang, Li Su, Qingming Huang, Chunxi Liu, Ling-Yu Duan  
Track: Multimedia Coding, Transcoding and Standards  
Session ID: PH3

Paper ID: 311  
MACRO-BLOCK-LEVEL SELECTIVE BACKGROUND DIFFERENCE  
Xianguo Zhang, Yonghong Tian, Luhong Liang, Tiejum Huang, Wen Gao  
Track: Multimedia Coding, Transcoding and Standards  
Session ID: PH3

Paper ID: 544  
A TWO-PIECE R-D MODEL FOR HYBRID VIDEO CODING AND ITS APPLICATION IN FAST MODE DECISION  
Alireza Aminlou, Hana Fahim-Hashemi, Mahmoud Reza Hashemi, Moncef Gabbouj, Omid Fatemi  
Track: Multimedia Coding, Transcoding and Standards  
Session ID: PH3

Paper ID: 683  
SPREAD AND ITERATIVE SEARCH: A HIGH QUALITY MOTION ESTIMATION ALGORITHM FOR HIGH DEFINITION VIDEOS AND ITS VLSI DESIGN  
Gustavo Sanchez, Luciano Agostini, Felipe Sampaio, Marcelo Porto, Sergio Bampi  
Track: Multimedia Coding, Transcoding and Standards  
Session ID: PH3

Paper ID: 773  
A LOW-COMPLEXITY HEVC INTRA PREDICTION ALGORITHM BASED ON LEVEL AND MODE FILTERING  
Heming Sun, Dajiang Zhou and Satoshi Goto  
Track: Multimedia Coding, Transcoding and Standards  
Session ID: PH3

Paper ID: 723  
SPATIALLY SCALABLE VIDEO CODING FOR HEVC  
Zhongbo Shi, Xiaoyan Sun, Feng Wu  
Track: Multimedia Coding, Transcoding and Standards  
Session ID: PH3
PH4
Chairs: Jingjing Fu, MSRA, China
Time: 16:00-17:30, 12th July 2012
Room: 104

**Paper ID: 537**
3D HEAD POSE ESTIMATION BASED ON SCENE FLOW AND GENERIC HEAD MODEL
Peng Liu, Michael Reale, Lijun Yin
*Track: Multimedia Applications, Interface and Interaction*
*Session ID: PH4*

**Paper ID: 328**
EFFICIENT SUPER-RESOLUTION BY FINER SUB-PIXEL MOTION PREDICTION AND BILATERAL FILTERING
Damith J. Mudugamuwa, Xiangjian He, Wenjing Jia
*Track: Multimedia Signal Processing, System and Architect*
*Session ID: PH4*

**Paper ID: 285**
AUTOMATIC VIDEO EDITING FOR VIDEO-BASED INTERACTIVE STORYTELLING
Edirlei Soares de Lima, Bruno Feijó, Cesar Pozzer, Angelo Ciarlini, Antonio Furtado
*Track: Multimedia Content Analysis, Retrieval and Databases*
*Session ID: PH4*

**Paper ID: 759**
CROWDSOURCED LEARNING TO PHOTOGRAPH VIA MOBILE DEVICES
Wenyuan Yin, Tao Mei, Chang Wen Chen
*Track: Multimedia Applications, Interface and Interaction*
*Session ID: PH4*

**Paper ID: 319**
PAUSE INTENSITY: A NO-REFERENCE QUALITY ASSESSMENT METRIC FOR VIDEO STREAMING IN TCP NETWORKS
Colin Bailey, Mirghiasaldin Seyederehimi, Xiao-Hong Peng
*Track: Multimedia Quality Assessment and Quality Experience*
*Session ID: PH4*

**Paper ID: 158**
VISUAL CONTRAST SENSITIVITY GUIDED VIDEO QUALITY ASSESSMENT
Junyong You, Liyuan Xing, Andrew Perkis, Touradj Ebrahimi
*Track: Multimedia Quality Assessment and Quality Experience*
Session ID: PH4

**Paper ID: 248**
GAUSSIAN NOISE LEVEL ESTIMATION IN SVD DOMAIN FOR IMAGES
Wei Liu, Weisi Lin
*Track: Multimedia Quality Assessment and Quality Experience*

**Session ID: PH4**

**Paper ID: 672**
REDUCING BLOCKING ARTIFACTS IN COMPRESSED IMAGES VIA TRANSFORM-DOMAIN NON-LOCAL COEFFICIENTS ESTIMATION
Xinfeng Zhang, Ruiqin Xiong, Siwei Ma, Wen Gao
*Track: Multimedia Signal Processing, System and Architecture*

**Session ID: PH4**

**Paper ID: 466**
AN AUGMENTED REALITY 3D POP-UP BOOK: THE DEVELOPMENT OF A MULTIMEDIA PROJECT FOR ENGLISH LANGUAGE TEACHING
Poonsri Vate-U-Lan
*Track: Multimedia Creation and Synthesis and 3D Media*

**Session ID: PH4**

**Paper ID: 267**
A NOVEL FRAMEWORK FOR 3D COMPUTER ANIMATION SYSTEMS FOR NONPROFESSIONAL USERS USING AN AUTOMATIC RIGGING ALGORITHM
Natapon Pantuwong and Masanori Sugimoto
*Track: Multimedia Creation and Synthesis and 3D Media*

**Session ID: PH4**

**Paper ID: 124**
UNSUPERVISED CONVERSION OF 3D MODELS FOR INTERACTIVE METAVERSE
Jeff Terrace, Ewen Cheslack-Postava, Philip Levis, and Michael J. Freedman
*Track: Multimedia Creation and Synthesis and 3D Media*

**Session ID: PH4**
WORKSHOPS PROGRAM
MUST-EH: The 2nd IEEE International Workshop on Multimedia Services and Technologies for E-health

Chairs: M. Shamim Hossain, King Saud University, KSA
Stefan Goebel, KOM, TU Darmstadt, Germany

Opening
Time: 8:30 - 8:40, 9th July 2012
Room: 101

WM1
Time: 8:40 - 10:20, 9th July 2012
Room: 101

Paper IDW58
A NEW TEXTURE FEATURE FOR IMPROVED FOOD RECOGNITION ACCURACY IN A MOBILE PHONE BASED DIETARY ASSESSMENT SYSTEM
Md Hafizur Rahman, M. R Pickering, D. Kerr, C. J. Boushey, E. J. Delp
Session: WM1, The 2nd IEEE International Workshop on Multimedia Services and Technologies for E-health

Paper IDW180
SPECULAR HIGHLIGHT REMOVAL FOR IMAGE-BASED DIETARY ASSESSMENT
Y. He, N. Khanna, C.J. Boushey, E.J. Delp
Session: WM1, The 2nd IEEE International Workshop on Multimedia Services and Technologies for E-health

Morning Tea
Time: 10:20-10:50

WM4
Time: 10:50 - 12:30, 9th July 2012
Room: 101

Paper IDW3
A REAL-TIME BIOFEEDBACK HEALTH ADVISORY SYSTEM FOR CHILDREN CARE
Hawazin Badawi, Mohamad Eid, Abdulmotaleb El Saddik
Session: WM4, The 2nd IEEE International Workshop on Multimedia Services and Technologies for E-health
Paper IDW178
A HUMAN CAREGIVER SUPPORT SYSTEM IN ELDERLY MONITORING FACILITY
M. Anwar Hossain and Dewan Tanvir Ahmed  
Session: WM4, The 2nd IEEE International Workshop on Multimedia Services and Technologies for E-health

Paper IDW168
TELE-MEDICAL APPLICATIONS IN HOME-BASED HEALTH CARE
Reem Al-Attas, Abdulsalam Yassine, Shervin Shirmohammadi  
Session: WM4, The 2nd IEEE International Workshop on Multimedia Services and Technologies for E-health

Paper IDW196
CLOUD-BASED E-HEALTH MULTIMEDIA FRAMEWORK FOR HETEROGENEOUS NETWORK
Atif Alamri  
Session: WM4, The 2nd IEEE International Workshop on Multimedia Services and Technologies for E-health

Lunch  
Time: 12:30-13:30
SMC: The 1st International Workshop on Social Multimedia Computing

Chairs: Gao Wen, Peking University, China
Zhou Wanlei, Deakin University, Australia

Opening
Time: 8:30 - 8:40, 9th July 2012
Room: 103

WM2
Time: 8:40-10:20, 9th July 2012
Room: 103

Paper IDW15
SOCIAL PHOTO TAGGING RECOMMENDATION USING COMMUNITY-BASED GROUP ASSOCIATIONS
Chien-Li Chou, Yee-Choy Chean, Yi-Cheng Chen, Hua-Tsung Chen and Suh-Yin Lee
Session: WM2, The 1st International Workshop on Social Multimedia Computing

Paper IDW11
SOCIAL ATTRIBUTE ANNOTATION FOR PERSONAL PHOTO COLLECTION
Zhipeng Wu, Kiyoharu Aizawa
Session: WM2, The 1st International Workshop on Social Multimedia Computing

Morning Tea
Time: 10:20-10:50

WM5
Time: 10:50 - 12:30, 9th July 2012
Room: 103

Paper IDW47
AUTOMATIC SOCIAL NETWORK CONSTRUCTION FROM MOVIES USING FILM-EDITING CUES
Mei-Chen Yeh, Ming-Chi Tseng, Wen-Po Wu
Session: WM5, The 1st International Workshop on Social Multimedia Computing

Paper IDW123
EXTRACTING CONTEXT INFORMATION FROM MICROBLOG BASED ON ANALYSIS OF ONLINE REVIEWS
Takumi Takehara, Shohei Miki, Naoko Nitta and Noboru Babaguchi
Session: WM5, The 1st International Workshop on Social Multimedia Computing

**Paper IDW22**
HOW MULTIMEDIA IN ENTERPRISE SOCIAL NETWORKS MATTERS TO PEOPLE’S PERFORMANCE  
Zhen Wen, Mercan Topkara, Liangliang Cao, Ching-Yung Lin, Jennifer Lai  
*Session: WM5, The 1st International Workshop on Social Multimedia Computing*

**Paper IDW41**
MEMETIC COMMUNICATION MEDIA - CONCEPTS, TECHNOLOGIES, APPLICATIONS  
Klaus P. Jantke, Jun Fujima, Oksana Arnold, André Schulz  
*Session: WM5, The 1st International Workshop on Social Multimedia Computing*

**Paper IDW172**
A MODEL DRIVEN APPROACH FOR INTEGRATION OF INTERACTIVE APPLICATIONS AND WEB SERVICES: A CASE STUDY IN INTERACTIVE DIGITAL TV PLATFORM  
Raoni Kulesza, Silvio R. L. Meira, Thales P. Ferreira, Eduardo S. M. Alexandre, Guido L. S. Filho, Manoel C Marques Neto Celso A. S. Santos  
*Session: WM5, The 1st International Workshop on Social Multimedia Computing*

**Lunch**
Time: 12:30-13:30

---

**WM8**
Time: 13:30 - 15:10, 9th July 2012  
Room: 103

**Paper IDW158**
VISUALIZATION OF REAL-WORLD EVENTS WITH GEOTAGGED TWEET PHOTOS  
Yusuke Nakaji and Keiji Yanai  
*Session: WM8, The 1st International Workshop on Social Multimedia Computing*

**Paper IDW40**
MULTISCALE BROWSING THROUGH VIDEO COLLECTIONS IN SMARTPHONES USING SCALABLE STORYBOARDS
Luis Herranz  
Session: WM8, The 1st International Workshop on Social Multimedia Computing

Paper IDW32  
RANDOM SUBSPACE METHOD FOR GAIT RECOGNITION  
Yu Guan, Chang-Tsun Li and Yongjian Hu  
Session: WM8, The 1st International Workshop on Social Multimedia Computing

Paper IDW102  
HOW MANY FRAMES DOES FACIAL EXPRESSION RECOGNITION REQUIRE?  
Kaimin Yu, Zhiyong Wang, Genliang Guan, Qiauxia Wu, Zheru Chi and Dagan Feng  
Session: WM8, The 1st International Workshop on Social Multimedia Computing

Paper IDW18  
THE PERFORMANCE OF THE SPEAKING RATE PARAMETER IN EMOTION RECOGNITION FROM SPEECH  
David Philippou-Hübner, Bogdan Vlasenko, Ronald Böck, Andreas Wendemuth  
Session: WM8, The 1st International Workshop on Social Multimedia Computing

Afternoon Tea  
Time: 15:10-15:40

WM11  
Time: 15:40 - 17:50, 9th July 2012  
Room: 103

Paper IDW8  
QUERY BY HUMMING BY USING LOCALITY SENSITIVE HASHING BASED ON COMBINATION OF PITCH AND NOTE  
Qiang Wang, Zhiyuan Guo, Gang Liu, Jun Guo, Yueming Lu  
Session: WM11, The 1st International Workshop on Social Multimedia Computing

Paper IDW122  
PHOTO LAYOUT WITH A FAST EVALUATION METHOD AND GENETIC ALGORITHM  
Jian Fan  
Session: WM11, The 1st International Workshop on Social Multimedia Computing
Paper IDW7
ROI-BASED VIDEO STABILIZATION ALGORITHM FOR HAND-HELD CAMERAS
Dong-bok Lee, Ick-hyun Choi, Byung Cheol Song, Tae Hwan Lee
Session: WM11, The 1st International Workshop on Social Multimedia Computing

Paper IDW68
CONTEXTUAL DOMINANT COLOR NAME EXTRACTION FOR WEB IMAGE SEARCH
Peng Wang, Dongqing Zhang, Gang Zeng and Jingdong Wang
Session: WM11, The 1st International Workshop on Social Multimedia Computing

Paper IDW181
DISTRIBUTED VIDEO CODING BASED ON COMPRESSED SENSING
Yousuf Baig, Edmund M-K. Lai and Amal Punchihewa
Session: WM11, The 1st International Workshop on Social Multimedia Computing
HotMM: Workshop on Hot Topics in Mobile Multimedia

Chairs: Sanjeev Mehrotra, Microsoft Research, Redmond
       Suman Banarjee, University of Wisconsin, Madison
       Yan Lu, Microsoft Research Asia, Beijing
       Shipeng Li, Microsoft Research Asia, Beijing

Opening
Time: 8:30 - 8:40, 9th July 2012
Room: 104

WM3
Time: 8:40 - 10:20, 9th July 2012
Room: 104

Paper IDW166
MOBILE TV WITH LONG TIME INTERLEAVING AND FAST ZAPPING
Cornelius Hellge, Valentina Pullano, Manuel Hensel, Giovanni E.
Corazza, Thomas Schierl and Thomas Wiegand
Session: WM3, Workshop on Hot Topics in Mobile Multimedia

Paper IDW185
FRAGMENT REDUCTION ON MOBILE GPU WITH CONTENT ADAPTIVE
SAMPLING
Chia-Yang Chang, Yu-Jung Chen, Chia-Ming Chang, Shao-Yi Chien
Session: WM3, Workshop on Hot Topics in Mobile Multimedia

Morning Tea
Time: 10:20-10:50

WM6
Time: 10:50 - 12:30, 9th July 2012
Room: 104

Paper IDW162
BI-MODAL PERSON RECOGNITION ON A MOBILE PHONE: USING
MOBILE PHONE DATA
Chris McCool, Sébastien Marcel, Abdenour Hadid, Matti Pietikäinen,
Pavel Matějka, Jan Cernocky, Norman Poh, Josef Kittler, Anthony
Larcher, Christophe Lévy, Driss Matrouf, Jean-Francçois Bonastre, Phil
Tressadernk and Timothy Cootes
Session: WM6, Workshop on Hot Topics in Mobile Multimedia
Paper IDW53
EMPLOYING 3D ACCELEROMETER INFORMATION FOR FAST AND RELIABLE IMAGE FEATURES MATCHING ON MOBILE DEVICES
Ayman Kaheel, Motaz El-Saban, Mostafa Izz and Mahmoud Refaat
Session: WM6, Workshop on Hot Topics in Mobile Multimedia

Paper IDW83
THEORETICAL FRAMEWORK FOR EVALUATING PARTIAL CHECKSUM PROTECTION IN WIRELESS VIDEO STREAMING
Jari Korhonen, Søren Forchhammer, and Knud J. Larsen
Session: WM6, Workshop on Hot Topics in Mobile Multimedia

Paper IDW175
REAL TIME DYNAMIC IMAGE RE-TARGETING BASED ON A DYNAMIC VISUAL ATTENTION MODEL
Matthieu Perreira Da Silva, Vincent Courboulay, and Patrick Le Callet
Session: WM6, Workshop on Hot Topics in Mobile Multimedia

Paper IDW91
INSPORAMA: INS-AIDED MISALIGNMENT CORRECTION IN FEATURE-BASED PANORAMIC IMAGE STITCHING
Yuan Gao, Chengu Wang, Edward Y. Chang
Session: WM6, Workshop on Hot Topics in Mobile Multimedia

Lunch
Time: 12:30-13:30
3DCIA: The 2nd Workshop on Community Based 3D Contents and Its Application

Chairs: Yihong Wu, Institute of Automation, Chinese Academy of Sciences, China
Peter Sturm, INRIA, France
Lixin Fan, Nokia Research Center, Finland
Jian Zhang, University of Technology, Sydney, Australia,
NICTA (National ICT Australia)

Opening
Room: 101

WM7
Time: 13:30 - 15:10, 9th July 2012
Room: 101

Paper IDW116
ROUTE VISUALIZATION IN INDOOR PANORAMIC IMAGERY WITH OPEN AREA MAPS
Matei Stroila, Adil Yalcin, Joe Mays and Narayanan Alwar
Session: WM7, The 2nd Workshop on Community Based 3D Contents and Its Application

Paper IDW42
DEPTH EXTRACTION FROM MONOCULAR VIDEO USING BIDIRECTIONAL ENERGY MINIMIZATION AND INITIAL DEPTH SEGMENTATION
Chunyu Lin, Jan De Cock, Jürgen Slowack, Peter Lambert and Rik Van de Walle
Session: WM7, The 2nd Workshop on Community Based 3D Contents and Its Application

Afternoon Tea
Time: 15:10-15:40

WM10
Time: 15:40 - 17:20, 9th July 2012
Room: 101

Paper IDW71
DEPTH AND GEOMETRY FROM A SINGLE 2D IMAGE USING TRIANGULATION
Yasir Salih and Aamir S. Malik
Session: WM10, The 2nd Workshop on Community Based 3D Contents and Its Application
Paper IDW20
AN IMPROVED BUILDING DETECTION TECHNIQUE FOR COMPLEX SCENES
Mohammad Awrangjeb, Chunsun Zhang, Clive S. Fraser
Session: WM10, The 2nd Workshop on Community Based 3D Contents and Its Application

Paper IDW50
3D POSE ESTIMATION OF FRONT VEHICLE TOWARDS A BETTER DRIVER ASSISTANCE SYSTEM
Yu Peng, Jesse S. Jin, Suhuai Luo, Min Xu, Yue Cui
Session: WM10, The 2nd Workshop on Community Based 3D Contents and Its Application

Paper IDW160
INTER PREDICTION BASED ON LOW-RANK MATRIX COMPLETION
Yunhui Shi, He Li, Jin Wang, Wenpeng Ding, Baocai Yin
Session: WM10, The 2nd Workshop on Community Based 3D Contents and Its Application

Paper IDW141
A NOVEL EDGE DETECTION FRAMEWORK BY COMPONENT TREE CONSTRUCTION
Zhijun Dai, Yihong Wu, Youji Feng
Session: WM10, The 2nd Workshop on Community Based 3D Contents and Its Application

Best Paper Discussion
Time: 17:20 - 17:50, 9th July 2012
TEMPEKU: Tangible Edutainment Media for Playful Evolution of Knowledge and Understanding

Chairs: Jun Fujima, Fraunhofer IDMT, Germany
       Klaus P. Jantke, Fraunhofer IDMT, Ilmenau & Erfurt, Germany
       Yuzuru Tanaka, Hokkaido University Sapporo, Japan
       Nigel Waters, George Mason University, Fairfax, VA, USA

Opening
Room: 104

WM9
Time: 13:30 - 15:10, 9th July 2012
Room: 104

Paper IDW92
JOB SHOP SCHEDULING AT YOUR FINGERTIPS & PLANNING ALTERNATIVES OFF THE CLOUD
Christoph Vogler, Hans-Rainer Beick, Jan Opfermann, Wolfgang Hölzer
Session: WM9, Tangible Edutainment Media for Playful Evolution of Knowledge and Understanding

Paper IDW140
OVIE: OBJECT ORIENTED AND VECTOR BASED IMAGE EDITING
Hailing Zhou, Jianmin Zheng
Session: WM9, Tangible Edutainment Media for Playful Evolution of Knowledge and Understanding

Paper IDW87
REAL-TIME POLYPHONIC SCORE FOLLOWING SYSTEM
Ting-Ting Chou Wen-Chieh Chen Siang-An Wnag Ken-Ning Chang Herng-Yow Chen
Session: WM9, Tangible Edutainment Media for Playful Evolution of Knowledge and Understanding

Afternoon Tea
Time: 15:10-15:40

WM12
Time: 15:40 - 17:50, 9th July 2012
Room: 104
TEMPEKU: Tangible Edutainment Media for Playful Evolution of Knowledge and Understanding

**Paper IDW132**
ADVANCED WEBBLE APPLICATION DEVELOPMENT DIRECTLY IN THE BROWSER BY UTILIZING THE FULL POWER OF MEME MEDIA CUSTOMIZATION AND EVENT MANAGEMENT CAPABILITIES
Micke Kuwahara, Yuzuru Tanaka
*Session: WM12, Tangible Edutainment Media for Playful Evolution of Knowledge and Understanding*

**Paper IDW6**
MEDIA MULTIPLICITY AT YOUR FINGERTIPS: DIRECT MANIPULATION BASED ON WEBBLES
Jun Fujima, Klaus P. Jantke, Oksana Arnold
*Session: WM12, Tangible Edutainment Media for Playful Evolution of Knowledge and Understanding*

**Paper IDW139**
IMPROVISATIONAL CONSTRUCTION OF A CONTEXT FOR DYNAMIC IMPLEMENTATION OF ARBITRARY SMART OBJECT FEDERATION SCENARIOS
Jérémie Julia, Yuzuru Tanaka
*Session: WM12, Tangible Edutainment Media for Playful Evolution of Knowledge and Understanding*
EMSA: International Workshop on Emerging Multimedia Systems and Applications

Chairs: Zhenzhong Chen, MediaTek USA Inc., USA
       Wenjun Zeng, University of Missouri, USA
       Patrick Le Callet, Polytech’Nantes, France

Opening
Time: 8:30 - 8:40, 13th July 2012
Room: 103

WF1
Time: 8:40 - 10:20, 13th July 2012
Room: 103

Paper IDW98
ADOPTING PERCEPTUAL QUALITY METRICS IN VIDEO ENCODERS: PROGRESS AND CRITIQUES
Po-Yen Su, Chieh-Kai Kao, Tsung-Yau Huang and Homer H. Chen
Session: WF1, International Workshop on Emerging Multimedia Systems and Applications

Paper IDW30
VIDEO CONTENT DEPENDENT DIRECTIONAL TRANSFORM FOR HIGH PERFORMANCE VIDEO CODING
Long Xu, King Ngi Ngan
Session: WF1, International Workshop on Emerging Multimedia Systems and Applications

Paper IDW81
NOVEL 3DV CODING SCHEME WITH DOWN-/UP-SAMPLING AND ASYMMETRICAL PREDICTION
Xiang Ma, Junyan Huo, Yilin Chang, Guangliang Ren, Ying Chen, Li Zhang
Session: WF1, International Workshop on Emerging Multimedia Systems and Applications

Paper IDW148
UNIDIRECTIONAL ENCODER RATE CONTROL SCHEME FOR TRANSFORM DOMAIN DISTRIBUTED VIDEO CODING
Vijay Kumar, Somnath Sengupta
Session: WF1, International Workshop on Emerging Multimedia Systems and Applications

Paper IDW195
AN OVERVIEW OF PERCEPTUAL PROCESSING FOR DIGITAL PICTURES
Hong Ren Wu, Weisi Lin and Lina J. Karam
Session: WF1, International Workshop on Emerging Multimedia Systems and Applications

Morning Tea
Time: 10:20-10:50

WF7
Time: 10:50 - 12:30, 13th July 2012
Room: 103

Paper IDW43
CROSS-LAYER OPTIMIZED CODING MODE SELECTION FOR WIRELESS VIDEO COMMUNICATIONS
Yun Ye, Song Ci, Dalei Wu
Session: WF7, International Workshop on Emerging Multimedia Systems and Applications

Paper IDW48
MINIMIZING VIDEO RETRANSMISSION DELAY AND ENERGY CONSUMPTION WITH CACHING ROUTERS
Michael P. McGarry, Jesus Hernandez, Rony Ferzli and Violet R. Syrotiuk
Session: WF7, International Workshop on Emerging Multimedia Systems and Applications

Paper IDW124
DISTRIBUTED AREA OF INTEREST MANAGEMENT FOR LARGE-SCALE IMMERSIVE VIDEO CONFERENCING
Pedram Pourashraf, Farzad Safaei, Daniel R. Franklin
Session: WF7, International Workshop on Emerging Multimedia Systems and Applications

Paper IDW170
SEAMLESS VIDEO STREAMING: A LIGHT WEIGHT SESSION HANDOFF SCHEME FOR DYNAMIC STREAM MERGING BASED WIRELESS MESH NETWORKS
Vaithiyanathan Sundaram, Kien A. Hua
Session: WF7, International Workshop on Emerging Multimedia Systems and Applications

Paper IDW35
CONTENT-BASED IMAGE RETRIEVAL IN P2P NETWORKS WITH BAG-OF-FEATURES
Lelin Zhang, Zhiyong Wang, Dagan Feng
Session: WF7, International Workshop on Emerging Multimedia Systems and Applications
**Lunch**

Time: 12:30-13:30

**WF13**

Time: 13:30 - 15:10, 13th July 2012
Room: 103

**Paper IDW31**

MAGIC INPUT: A MULTI-USER INTERACTION SYSTEM FOR SAGE BASED LARGE TILED-DISPLAY ENVIRONMENT
Yihua Lou, Wenjun Wu, Hui Zhang

*Session: WF13, International Workshop on Emerging Multimedia Systems and Applications*

**Paper IDW45**

INFRARED AND INERTIAL TRACKING IN THE IMMERSE AUDIO ENVIRONMENT FOR ENHANCED MILITARY TRAINING
Pratik Shah, Ayman Faza, Raghavendra Nimmala, Steven Grant, William Chapin and Robert Montgomery

*Session: WF13, International Workshop on Emerging Multimedia Systems and Applications*

**Paper IDW60**

REAL-TIME PITCH TRAINING SYSTEM FOR VIOLIN LEARNERS
Jian-Heng Wang Siang-An Wang Wen-Chieh Chen Ken-Ning Chang Herng-Yow Chen

*Session: WF13, International Workshop on Emerging Multimedia Systems and Applications*

**Paper IDW177**

VIRTUAL INTERACTIONS: CAN EEG HELP MAKE THE DIFFERENCE WITH REAL INTERACTION?
Jan Rzepecki, Jonathan Delcourt, Matthieu Perreira Da Silva, Patrick Le Callet

*Session: WF13, International Workshop on Emerging Multimedia Systems and Applications*

**Paper IDW202**

A RULE-BASED VIRTUAL DIRECTOR ENHANCING GROUP COMMUNICATION
Rene Kaiser, Wolfgang Weiss, Manolis Falelakis, Spiros Michalakopoulos and Marian F. Ursu

*Session: WF13, International Workshop on Emerging Multimedia Systems and Applications*

**Afternoon Tea**
WF19
Time: 15:40 - 17:00, 13th July 2012
Room: 103

Paper IDW2
LAYOUT-EXPECTATION-BASED MODEL FOR IMAGE SEARCH RE-RANKING
Bin Jin, Weiyao Lin, Jianxin Wu, Tianhao Wu, Jun Huang, Chongyang Zhang
Session: WF19, International Workshop on Emerging Multimedia Systems and Applications

Paper IDW16
TOWARDS A VIDEO BROWSER FOR THE DIGITAL NATIVE
Brett Adams, Stewart Greenhill, Svetla Venkatesh
Session: WF19, International Workshop on Emerging Multimedia Systems and Applications

Paper IDW17
TRAFFIC CONGESTION CLASSIFICATION FOR NIGHTTIME SURVEILLANCE VIDEOS
Hua-Tsung Chen, Li-Wu Tsai, Hui-Zhen Gu, Suh-Yin Lee, Bao-Shuh P. Lin
Session: WF19, International Workshop on Emerging Multimedia Systems and Applications

Paper IDW25
CROSS-LAYERED HIDDEN MARKOV MODELING FOR SURVEILLANCE EVENT RECOGNITION
Chongyang Zhang, Jingbang Qiu, Shibao Zheng, Xiaokang Yang
Session: WF19, International Workshop on Emerging Multimedia Systems and Applications

Break
Time: 17:00-17:10

WF25
Time: 17:10 - 18:30, 13th July 2012
Room: 103

Paper IDW163
IMPROVED IMAGE RETARGETING BY DISTINGUISHING BETWEEN FACES IN FOCUS AND OUT OF FOCUS
Johannes Kiess, Rodrigo Garcia, Stephan Kopf, Wolfgang Effelsberg
Session: WF25, International Workshop on Emerging Multimedia Systems and Applications
Hot3D: Workshop on Hot Topics in 3D Multimedia

Andrew Perkis, Norwegian University of Science and Technology, Norway
Antonio Ortega, University of Southern California, USA
Gene Cheung, National Institute of Informatics, Japan

Opening
Time: 8:30 - 8:40, 13th July 2012
Room: 101

WF2
Time: 8:40 - 10:20, 13th July 2012
Room: 101

Paper IDW44
AUTOMATIC QOE PREDICTION IN STEREOSCOPIC VIDEOS
Hossein Malekmohamadi, W. A. C. Fernando and A. M. Kondoz
Session: WF2, Workshop on Hot Topics in 3D Multimedia

Paper IDW52
A DENSE 3D RECONSTRUCTION APPROACH FROM UNCALIBRATED VIDEO SEQUENCES
Li Ling, Ian S. Burnett, Eva Cheng
Session: WF2, Workshop on Hot Topics in 3D Multimedia

Morning Tea
Time: 10:20-10:50

WF8
Time: 10:50 - 12:30, 13th July 2012
Room: 101

Paper IDW106
NON-RIGID 3D MODEL RETRIEVAL USING SET OF LOCAL STATISTICAL FEATURES
Yuki Ohkita, Yuya Ohishi, Takahiko Furuya, Ryutarou Ohbuchi
Session: WF8, Workshop on Hot Topics in 3D Multimedia

Paper IDW128
KINECT-LIKE DEPTH COMPRESSION WITH 2D+T PREDICTION
Jingjing Fu, Dan Miao, Weiren Yu, Shiqi Wang, Yan Lu, Shipeng Li
Session: WF8, Workshop on Hot Topics in 3D Multimedia
Paper IDW131
DEPTH MAP SUPER-RESOLUTION USING SYNTHESIZED VIEW MATCHING FOR DEPTH-IMAGE-BASED RENDERING
Wei Hu, Gene Cheung, Xin Li, Oscar Au
Session: WF8, Workshop on Hot Topics in 3D Multimedia

Paper IDW157
IMPROVING DEPTH COMPRESSION IN HEVC BY PRE/POST PROCESSING
Cuiling Lan, Jizheng Xu and Feng Wu
Session: WF8, Workshop on Hot Topics in 3D Multimedia

Paper IDW167
LOSSLESS COMPRESSION OF STEREO DISPARITY MAPS FOR 3D
Marco Zamarin, Søren Forchhammer
Session: WF8, Workshop on Hot Topics in 3D Multimedia

Lunch
Time: 12:30-13:30
CLCAT: The 1st Workshop on (Re)creating Lively Cities Through Ambient Technologies: Arts, Culture, and Gasteronomic Experiences

Chairs: Artur Lugmayr, Tampere University of Technology, Tampere, Finland
Jaz Hee-jeong Choi, Urban Informatics Research Lab, QUT, Brisbane, Australia
Kirralie Houghton, Queensland Univ. of Technology, Australia

Opening
Time: 8:30 - 8:40, 13th July 2012
Room: 102

WF3
CLCAT Keynote
Time: 8:40-10:20
Room: 102

Morning Tea
Time: 10:20-10:50

WF9
Time: 10:50 - 12:30, 13th July 2012
Room: 102

Paper IDW29
WEB-BASED AUGMENTED REALITY VIDEO STREAMING FOR MARKETING
Ville Valjus, Sari Järvinen, Johannes Peltola
Session: WF9, The 1st Workshop on (Re)creating Lively Cities Through Ambient Technologies: Arts, Culture, and Gasteronomic Experiences

Paper IDW36
DISTRIBUTED AUGMENTED REALITY SYSTEMS: HOW MUCH PERFORMANCE IS ENOUGH?
Mehdi Chouiten, Jean-Yves Didier, Malik Mallem
Session: WF9, The 1st Workshop on (Re)creating Lively Cities Through Ambient Technologies: Arts, Culture, and Gasteronomic Experiences

Paper IDW38
A MUSIC RETRIEVAL SYSTEM USING MELODY AND LYRIC
Zhiyuan Guo, Qiang Wang, Gang Liu, Jun Guo, Yueming Lu
Session: WF9, The 1st Workshop on (Re)creating Lively Cities Through Ambient Technologies: Arts, Culture, and Gasteronomic Experiences
Paper IDW69
STATISTICAL COLOR MODEL BASED ADULT VIDEO FILTER
Liang Yin, Mingzhi Dong, Weihong Deng, Jun Guo, Bin Zhang
Session: WF9, The 1st Workshop on (Re)creating Lively Cities Through Ambient Technologies: Arts, Culture, and Gasteronomic Experiences

Lunch
Time: 12:30-13:30

WF15
Time: 13:30 - 15:10, 13th July 2012
Room: 102

Paper IDW117
LIVING THE PAST: AUGMENTED REALITY AND ARCHEOLOGY
Andrea Bernardini, Cristina Delogu, Emiliano Pallotti, Luca Costantini
Session: WF15, The 1st Workshop on (Re)creating Lively Cities Through Ambient Technologies: Arts, Culture, and Gasteronomic Experiences

Paper IDW194
RESEARCH DESIGN FOR EVALUATING HOW TO ENGAGE STUDENTS WITH URBAN PUBLIC SCREENS IN STUDENTS' NEIGHBOURHOODS
Artur Lugmayr, Yuan Fu
Session: WF15, The 1st Workshop on (Re)creating Lively Cities Through Ambient Technologies: Arts, Culture, and Gasteronomic Experiences

Paper IDW200
AMBIENT MEDIA FOR THE THIRD PLACE IN URBAN ENVIRONMENTS
Kiralie Houghton, Artur Lugmayr, Jaz Hee-jeong Choi
Session: WF15, The 1st Workshop on (Re)creating Lively Cities Through Ambient Technologies: Arts, Culture, and Gasteronomic Experiences

Paper IDW51
VIDEO DESCRIPTION LENGTH GUIDED CONSTANT QUALITY VIDEO CODING WITH BITRATE CONSTRAINT
Lei Yang, Debargha Mukherjee, Dapeng Wu
Session: WF15, The 1st Workshop on (Re)creating Lively Cities Through Ambient Technologies: Arts, Culture, and Gasteronomic Experiences
A-LSMM: The International Workshop on Advances in Large-Scale Multimedia Data Collection, Mining and Retrieval

Chairs: Ling Shao, The University of Sheffield, UK
       Jingdong Wang, Microsoft Research Asia, China
       Zheng-Jun Zha, National University of Singapore, Singapore

Opening
Time: 8:30 - 8:40, 13th July 2012
Room: 111

WF4
Time: 8:40 - 10:20, 13th July 2012
Room: 111

Paper IDW28
TRIP MINING AND RECOMMENDATION FROM GEO-TAGGED PHOTOS
Huagang Yin, Changhu Wang, Nenghai Yu, Lei Zhang
Session: WF4, The International Workshop on Advances in Large-Scale Multimedia Data Collection, Mining and Retrieval

Paper IDW61
A VISUAL SEARCH USER STUDY ON THE INFLUENCES OF ASPECT RATIO DISTORTION OF PREVIEW THUMBNAILS
David Ahlström, Klaus Schoeffmann
Session: WF4, The International Workshop on Advances in Large-Scale Multimedia Data Collection, Mining and Retrieval

Morning Tea
Time: 10:20-10:50

WF10
Time: 10:50 - 12:30, 13th July 2012
Room: 111

Paper IDW183
A TEXTURAL BASED HIDDEN MARKOV MODEL FOR ANIMATION GENRE DISCRIMINATION
Joseph Santarcangelo, Xiao-Ping Zhang
Session: WF10, The International Workshop on Advances in Large-Scale Multimedia Data Collection, Mining and Retrieval

Paper IDW76
FROM DOCUMENT TO IMAGE: LEARNING A SCALABLE RANKING MODEL FOR CONTENT BASED IMAGE RETRIEVAL
A-LSMM: The International Workshop on Advances in Large-Scale Multimedia Data Collection, Mining and Retrieval

Chao Zhou, Yangxi Li, Bo Geng, Chao Xu
Session: WF10, The International Workshop on Advances in Large-Scale Multimedia Data Collection, Mining and Retrieval

Paper IDW110
A NOVEL AUTOMATIC HIERARCHICAL APPROACH TO MUSIC GENRE CLASSIFICATION
Hasitha B. Ariyaratne, Dengsheng Zhang
Session: WF10, The International Workshop on Advances in Large-Scale Multimedia Data Collection, Mining and Retrieval

Paper IDW105
VIDEO SUMMARIZATION WITH GLOBAL AND LOCAL FEATURES
Genliang Guan, Zhiyong Wang, Kaimin Yu, Shaohui Mei, Mingyi He and Dagan Feng
Session: WF10, The International Workshop on Advances in Large-Scale Multimedia Data Collection, Mining and Retrieval

Paper IDW63
AN IMPROVED PRUNING METHOD BASED ON THE NUMBER OF STATES POSSESSED BY HYPOTHESES
Junyao Shao, Gang Liu, Zhiyuan Guo, Baoxiang Li, Yueming Lu
Session: WF10, The International Workshop on Advances in Large-Scale Multimedia Data Collection, Mining and Retrieval

Lunch
Time: 12:30-15:30
HFC3D: Human-Focused Communications in the 3D Continuum

Chairs: Beatrice Pesquet-Popescu, Telecom-Paristech, France
       Cha Zhang, Microsoft Research, USA
       Jun Zhou, Australian National University, Australia

Opening
Time: 8:30 - 8:40, 13th July 2012
Room: 104

WF5
Time: 8:40 - 10:20, 13th July 2012
Room: 104

Paper IDW4
MULTIVIEW VIDEO CODING USING VIDEO GAME CONTEXT INFORMATION
Bart Pieters, Charles Hollemeersch, Jan De Cock, Peter Lambert, Rik Van de Walle, Patrice Rondao Alface, Christoph Stevens
Session: WF5, Human-Focused Communications in the 3D Continuum

Paper IDW23
CLASSIFICATION-BASED ADAPTIVE COMPRESSION METHOD FOR COMPUTER SCREEN IMAGE
Yanfei Shen, Jintao Li, Zhenmin Zhu, Yun Song
Session: WF5, Human-Focused Communications in the 3D Continuum

Morning Tea
Time: 10:20-10:50

WF11
Time: 10:50 - 12:30, 13th July 2012
Room: 104

Paper IDW85
A HYBRID CODED BLOCK PATTERNS BASED FAST MODE DECISION IN H.264/AVC
Zhiru Shi, W.A.C. Fernando and A.M. Kondoz
Session: WF11, Human-Focused Communications in the 3D Continuum

Paper IDW151
IMPROVING THE RATE-DISTORTION PERFORMANCE OF THE TRANSFORM DOMAIN REFINEMENT CODEC BY THE USE OF DECODER-DRIVEN ADAPTIVE MODES
Vijay Kumar, Somnath Sengupta  
*Session: WF11, Human-Focused Communications in the 3D Continuum*

**Paper IDW127**  
HIDDEN MARKOV MODEL FOR EVENT PHOTO STREAM SEGMENTATION  
Jesse Prabawa Gozali, Min-Yen Kan, Hari Sundaram  
*Session: WF11, Human-Focused Communications in the 3D Continuum*

**Paper IDW173**  
USER REQUIREMENTS ELICITATION OF STEREOSCOPIC 3D VIDEO INTERACTION  
Haiyue Yuan, Janko Calic, Anil Fernando, Ahmet Kondoz  
*Session: WF11, Human-Focused Communications in the 3D Continuum*

**Paper IDW94**  
L-INFINITE CODING OF 3D REPRESENTATIONS OF HUMAN AFFECT  
Ruxandra Florea, Leon Denis, Jan Lievens, Peter Schelkens, Adrian Munteanu  
*Session: WF11, Human-Focused Communications in the 3D Continuum*

**Lunch**  
Time: 12:30-13:30

**WF17**  
Time: 13:30 - 15:10, 13th July 2012  
Room: 104

**Paper IDW126**  
SVD FILTER BASED MULTISCALE APPROACH FOR IMAGE QUALITY ASSESSMENT  
Ashirbani Saha, Gaurav Bhatnagar and Q.M. Jonathan Wu  
*Session: WF17, Human-Focused Communications in the 3D Continuum*

**Paper IDW56**  
SUPERVISED, GEOMETRY-AWARE SEGMENTATION OF 3D MESH MODELS  
Keisuke Banba, Ryutarou Ohbuchi  
*Session: WF17, Human-Focused Communications in the 3D Continuum*
Paper IDW75
ON-THE-FLY WATERMARKING OF VIDEOS FOR REAL-TIME APPLICATIONS
Sachin Mehta, Vijayaraghavan Varadharajan, and Rajarathnam Nallusamy
Session: WF17, Human-Focused Communications in the 3D Continuum

Paper IDW80
IMAGE FORENSICS WITH ROTATION-TOLERANT RESAMPLING DETECTION
Ruohan Qian, Weihai Li, Nenghai Yu, Zhuo Hao
Session: WF17, Human-Focused Communications in the 3D Continuum

Paper IDW161
INTELLIGENT VEHICLE DETECTION AND TRACKING FOR HIGHWAY DRIVING
Wanxin Xu, Meikang Qiu, Zhi Chen, Hai Su
Session: WF17, Human-Focused Communications in the 3D Continuum
AAMS-PS: The 2nd IEEE International Workshop on Advances in Automated Multimedia Surveillance for Public Safety

Chairs: Mohan S. Kankanhali, National University of Singapore, Singapore
Abdulmotaleb El Saddik, University of Ottawa, Canada
Pradeep K. Atrey, University of Winnipeg, MB, Canada
Mohammad Anwar Hossain, King Saud University, Saudi Arabia
WeiQi Yan, Queen’s University Belfast, UK

Opening
Time: 8:30 - 8:40, 13th July 2012
Room: 112

WF6
Time: 8:40 - 10:20, 13th July 2012
Room: 112

Paper IDW113
CROWD DENSITY ESTIMATION BASED ON LOCAL BINARY PATTERN CO-OCCURRENCE MATRIX
Zhe Wang, Hong Liu, Yueliang Qian and Tao Xu
Session: WF6, The 2nd IEEE International Workshop on Advances in Automated Multimedia Surveillance for Public Safety

Paper IDW97
ABNORMAL EVENT DETECTION IN UNSEEN SCENARIOS
Mahfuzul Haque and Manzur Murshed
Session: WF6, The 2nd IEEE International Workshop on Advances in Automated Multimedia Surveillance for Public Safety

Morning Tea
Time: 10:20-10:50

WF12
Time: 10:50 - 12:30, 13th July 2012
Room: 112

Paper IDW34
VEHICLE TYPE CLASSIFICATION USING PCA WITH SELF-CLUSTERING
Yu Peng, Jesse S. Jin, Suhuai Luo, Min Xu, Yue Cui
Session: WF12, The 2nd IEEE International Workshop on Advances in Automated Multimedia Surveillance for Public Safety
Paper IDW171
DYNAMIC RESOURCE ALLOCATION FOR EVENT PROCESSING IN SURVEILLANCE SYSTEMS
Dewan Tanvir Ahmed
Session: WF12, The 2nd IEEE International Workshop on Advances in Automated Multimedia Surveillance for Public Safety

Paper IDW96
ROBUST BACKGROUND SUBTRACTION BASED ON PERCEPTUAL MIXTURE-OF-GAUSSIANS WITH DYNAMIC ADAPTATION SPEED
Mahfuzul Haque and Manzur Murshed
Session: WF12, The 2nd IEEE International Workshop on Advances in Automated Multimedia Surveillance for Public Safety

Lunch
Time: 12:30-13:30

WF18
Time: 13:30 - 15:10, 13th July 2012
Room: 112

Paper IDW114
A COMPUTATIONALLY EFFICIENT ALGORITHM FOR BUILDING STATISTICAL COLOR MODELS
Mingzhi Dong, Liang Yin, Weihong Deng, Jun Guo and Weiran Xu
Session: WF18, The 2nd IEEE International Workshop on Advances in Automated Multimedia Surveillance for Public Safety

Paper IDW190
RESOURCE ALLOCATION FOR SERVICE COMPOSITION IN CLOUD-BASED VIDEO SURVEILLANCE PLATFORM
M. Shamim Hossain, M. Mehedi Hassan, M. Al Qurishi and Abdullah Alghamdi
Session: WF18, The 2nd IEEE International Workshop on Advances in Automated Multimedia Surveillance for Public Safety

Paper IDW169
A ROBUST WAVELET-BASED APPROACH TO FINGERPRINT IDENTIFICATION
Mona Omidyeganeh, Abbas Javadtalab, Shahrokh Ghaemmaghami, Shervin Shirmohammadi
Session: WF18, The 2nd IEEE International Workshop on Advances in Automated Multimedia Surveillance for Public Safety
AIME: The 2nd International Workshop on Interactive Ambient Intelligence Multimedia Environments

Chairs: Ali Asghar Nazari Shirehjini, DAI-Labor, Technical University Berlin, Berlin, Germany
       Shervin Shirmohammadi, DISCOVERLab, University of Ottawa, Ottawa, ON, Canada
       Abdulsalam Yassine, Alcatel-Lucent, Ottawa, Canada

Opening
Room: 101

WF14
Time: 13:30 - 15:10, 13th July 2012
Room: 101

Paper IDW54
AN AUTOMATIC MULTI-SAMPLE 3D FACE REGISTRATION METHOD BASED ON THIN PLATE SPLINE AND DEFORMABLE MODLE
Wenyu Qin, Yongli Hu, Yanfeng Sun and Baocai Yin
Session: WF14, The 2nd International Workshop on Interactive Ambient Intelligence Multimedia Environments

Paper IDW107
ON THE APPLICATION OF THE PROBABILISTIC LINEAR DISCRIMINANT ANALYSIS TO FACE RECOGNITION ACROSS EXPRESSION
Moh Edi Wibowo, Dian Tjondronegoro, Ligang Zhang
Session: WF14, The 2nd International Workshop on Interactive Ambient Intelligence Multimedia Environments

Paper IDW70
CREATIVE TRANSFORMATIONS OF PERSONAL PHOTOGRAPHS
Yi Wu, Kalpana Seshadrinathan, Wei Sun, Maha El Choubassi, Joshua Ratcliff and Igor Kozintsev
Session: WF14, The 2nd International Workshop on Interactive Ambient Intelligence Multimedia Environments

Paper IDW187
HUMAN GESTURE ANALYSIS USING MULTIMODAL FEATURES
Dan Luo, Hazim Kemal Ekenel, Ohya Jun
Session: WF14, The 2nd International Workshop on Interactive Ambient Intelligence Multimedia Environments

Afternoon Tea
AIME: The 2nd International Workshop on Interactive Ambient Intelligence Multimedia Environments

Time: 15:10-15:40

WF20
Time: 15:40 - 17:00, 13th July 2012
Room: 101

Paper IDW39
MULTI-INSTANCE LEARNING WITH AN EXTENDED KERNEL DENSITY ESTIMATION FOR OBJECT CATEGORIZATION
Ruo Du, Qiang Wu, Xiangjian He, Jie Yang,
Session: WF20, The 2nd International Workshop on Interactive Ambient Intelligence Multimedia Environments

Paper IDW125
MOTION SEGMENTATION BASED ON 3D HISTOGRAM AND TEMPORAL MODE SELECTION
Dibyendu Mukherjee and Q. M. Jonathan Wu
Session: WF20, The 2nd International Workshop on Interactive Ambient Intelligence Multimedia Environments

Paper IDW121
EXERLEARN BIKE: AN EXERGAMING SYSTEM FOR CHILDREN'S EDUCATIONAL AND PHYSICAL WELL-BEING
Rajwa Al-Hrathi, Ali Karime, Hussein Al-Osman and Abdulmotaleb El Saddik
Session: WF20, The 2nd International Workshop on Interactive Ambient Intelligence Multimedia Environments

Paper IDW179
A NOVEL SVM BASED FOOD RECOGNITION METHOD FOR CALORIE MEASUREMENT APPLICATIONS
Parisa Pouladzadeh, Gregorio Villalobos, Rana Almaghrabi, Shervin Shirmohammadi
Session: WF20, The 2nd International Workshop on Interactive Ambient Intelligence Multimedia Environments
DEMOS
Demos

Time: 16:30-18:30, 10th July 2016
Room: 102

Paper ID: 9114
A Demonstration of a Hierarchical Multi-Layout 3D Video Browser - Demo Paper for ICME 2012
Christopher Müller, Martin Smole and Klaus Schöffmann
Session: DEMO, ICME2012 Demos

Paper ID: 9115
Interactive 3D Animation System forWeb3D
Masayuki Furukawa, Shinya Fukumoto, Hiroshi Kawasaki, Yukiko Kawai
Session: DEMO, ICME2012 Demos

Paper ID: 9116
A Multi-User Interaction System Based on Kinect and Wii Remote (Demonstration Paper for ICME 2012)
Yihua Lou, Wenjun Wu, Hui Zhang, Haikuo Zhang, Yongquan Chen
Session: DEMO, ICME2012 Demos

Paper ID: 9117
Surround Sound Using Variable-Ambisonics and Variable-Polar Pattern Theories
Martin J. Morrell, Joshua D. Reiss, Sonia Wilkie
Session: DEMO, ICME2012 Demos

Paper ID: 9118
Novel Wireless Routers for Seamless Sharing of Video Access in Multihop Networks
Kien A. Hua, Steven Nichols, Vaithiyanathan Sundaram, Fei Xie
Session: DEMO, ICME2012 Demos

Paper ID: 9119
Demonstration paper for ICME 2012: LOOK2 - A Video-based System for Real-time Notification of Relevant Traffic Events
Roland Tusch, Felix Pletzer, Vijay Mudunuri, Armin Kraetschmer, Karuna Sabbavarapu, Marian Kogler, Laszlo Boeszoermenyi, Bernhard Rinner, Manfred Harrer, Thomas Mariacher, Peter Hrassnig
Session: DEMO, ICME2012 Demos

Paper ID: 9120
OpenGL SC Implementation over an OpenGL ES 1.1 Graphics Board
Nakhoon Baek, Hwanyong Lee
Session: DEMO, ICME2012 Demos
Paper ID: 9121
A Codeword Visualization Tool for Dense Trajectory Feature
Sang Phan, Vu Lam, Son Tran, Thang Duc Ngo, Duy-Dinh Le, Shin’ichi Satoh
Session: DEMO, ICME2012 Demos
TUTORIALS
Tutorials

Tutorial AMC: Ambient Media Computation – A Service and Business Level Perspective

Artur Lugmayr, Tampere University of Technology, Tampere, Finland

Time: 9:00-12:30, 9th July 2012
Room: 102

Media evolved from media that can be described as integrated presentation in one form (multimedia). From multimedia, media evolved towards embedding the consumer in a computer graphic generated synthetic world (virtual reality). From this point on, media evolved to the consumers directly exposed to the media in their natural environment, rather than computer interfaces (ambient media). In addition, media will be evolving towards a fully real/synthetic world undistinguishable from pure media integrating human capacity (biomedia or bio-multimedia) somewhere in the very far distant future. The goal is to train and educate participants in new innovative service design for ambient computation. The course will cover potential and possibilities of this new multimedia field and its relation to other trends, such as ubicom, pervasive computation, affective computation, and tangible media. Specific key-concepts of ambient media are developed based on various business case studies.

Brief Biography:

Artur Lugmayr: Prof. Dr. Artur Lugmayr describes himself as a creative thinker of future media environments, and his scientific work is situated between art and science. His vision is to create innovative media experiences with emerging media platforms tagged with solid business models and processes. Starting from July 2009 he is full-professor for entertainment and media production management at the Department of Business Information Management and Logistics at the Tampere University of Technology (TUT) and founded the EMMi Lab. Besides many achievements, he is engaged in Dr.-Arts studies at Aalto Univ., Helsinki besides his completed Dr.-Techn. studies; was guest scientist at several universities and/or hold guest lectures/talks (e.g. Harvard Medical School/USA, QUT/Australia, KTH/Sweden, UFAM/Brasil, Univ. of Neuchatel/Switzerland); founder of the Ambient Media Association (AMEA); established several competitions situated between art and
technology (e.g. Nokia Ubimedia MindTrek Award, EuroITV Grand Challenge); contributed numerous scientific works; and founded the production company LugYmedia Inc.
Tutorial APCDP: Advances in Perceptual Coding of Digital Pictures

K. R. Rao, The University of Texas at Arlington, USA
Hong Ren Wu, Royal Melbourne Institute of Technology, Australia

Time: 9:00-12:30, 9th July 2012
Room: 111

Traditional definition of digital picture coding covers compression of visual data in form of both still images and moving or motion pictures or image sequences or videos [1]. Digital picture compression products, systems and applications proliferated over the past two decades, at a pace which had never been witnessed since the pioneering work by Goodall at Bell Labs in 1949 [2], in visual communications and entertainment, including video telephony, video conferencing, digital television (TV) broadcasting including Standard Definition or SD, High Definition or HD and three-dimensional or 3-D video signals, IPTV (Internet Protocol TV), IP CCTV (Closed-Circuits TV), video streaming and on-demand services, PACS (Picture Archiving and Communication System) for biomedical imaging, satellite imaging, DVD and HD DVD/Blue-ray products, broadband wireless and multimedia communications (click here for more details).

Brief Biography:

**K. R. Rao:** Prof. K. R. Rao received the Ph. D. degree in electrical engineering from The University of New Mexico, Albuquerque in 1966. He received B.S. E.E from the college of engineering, Guindy, India in 1952. Since 1966, he has been with the University of Texas at Arlington where he is currently a professor of electrical engineering. He, along with two other researchers, introduced the Discrete Cosine Transform (DCT) in 1975 which has since become very popular in digital signal processing. DCT, INTDCT, directional DCT and MDCT (modified DCT) have been adopted in several international video/image/audio coding standards such as JPEG/MPEG/H.26X series and also by SMPTE (VC-1) and by AVS China. He is the co-author of the books “Orthogonal Transforms for Digital Signal Processing” (Springer-Verlag, 1975), Also recorded for the blind in Braille by the Royal National Institute for the blind. “Fast Transforms: Analyses and Applications” (Academic Press, 1982), “Discrete Cosine Transform-Algorithms, Advantages, Applications” (Academic Press, 1990) (click here for more details).
Hong Ren Wu: Dr. Hong Ren Wu received his BEng. and MEng. degrees from University of Science and Technology, Beijing, China, in 1982 and 1985 respectively. He received his Ph.D. degree in electrical and computer engineering from The University of Wollongong, NSW, Australia, in 1990. Dr Wu was on academic staff of Monash University from 1990 to 2005, last as an associate professor. He has been a professor of visual communications engineering with Royal Melbourne Institute of Technology (RMIT University) since 2005 and concurrently served as Head of Computer and Network Engineering from Feb. 2005 to Jan. 2010 (click here for more details).
Tutorial MCEMCD: Network Coding for Efficient Multimedia Content Delivery

Anil Fernando, University of Surrey, UK

Time: 9:00-12:30, 9th July 2012
Room: 112

With the increasing popularity of multimedia content such as ultra-high definition video, multi-view video, free viewpoint video etc., it is a challenge for network service providers to distribute such high volume content at a high throughput while maintaining the required standard of quality of service. Popular internet applications such as live streaming, IP TV, web conferencing, etc. require delivering high volume multimedia content among multiple receivers. The usage of multicast technologies enables to deliver content to multiple receivers much more efficiently compared to unicast, albeit the question arises, are network resources utilized optimally?

Network Coding is a novel concept of network coding to optimally utilize network bandwidth. This treats information transmitted in a multicast network quite distinctively to the notion of regarding information as fluids. In network coding, information packets are coded at intermediate nodes. This increases the throughput at which information is delivered to receivers in a multicast network and improves the robustness against packet errors and losses. Due to such advantages, it is appealing to utilize network coding in practical networks to enhance network resource utilization and increase the quality of service. (click here for more details).

Brief Biography:

Anil Fernando: Anil Fernando (SMIEEE) is a Reader and leads the Video Codec group at the University of Surrey, UK. He has been working in video coding and communications since 1998 and has published more than 250 international refereed journal and proceeding papers in this area. Furthermore, he has published more than 130 international refereed journal and conference papers in multimedia communications. He has contributed to several international projects and currently he is leading 3D video communications work in two large scale projects funded by the European Union on Media communications. Recently he won the IEEE Chester Sall award sponsored by the IEEE Consumer Electronic Society for one of his work on 3D video compression. Most Recent Tutorials (during last 4 years): IEEE ICME 2011, IEEE ICME 2010, ICME 2009, ICME 2008, ICME2007, IEEE ICASP 2009, IEEE ICIP 2007.
The tags have proved to be a very crucial mechanism to facilitate the effective sharing and organization of large scale of multimedia information. As a result, technical developments on intelligent multimedia tagging have attracted a substantial amount of efforts involving experts from information retrieval, multimedia computing and artificial intelligence (particularly computer vision). The truly interdisciplinary research has resulted in many algorithmic and methodological developments. Meanwhile, many commercial web systems (e.g., Youtube, Last.fm, Facebook and Flickr) have successfully introduced a variety of toolkits to assist different users in discovering and exploring media content using tags.

**Brief Biography:**

**Jialie Shen:** Dr. Jialie Shen is an Assistant Professor in Information Systems and Lee Foundation Fellow, School of Information Systems, Singapore Management University, Singapore. He received his PhD in Computer Science from the University of New South Wales (UNSW), Australia in the area of large-scale media retrieval and database access methods. Dr. Shen’s main research interests include information retrieval, economic-aware media analysis, and statistical machine learning. His recent work has been published or is forthcoming in leading journals and international conferences including ACM SIGIR, ACM Multimedia, ACM SIGMOD, CVPR, ICDE, WWW, IEEE Transactions on Circuits and Systems for Video Technology (IEEE TCSVT), IEEE Transactions on Multimedia (IEEE TMM), ACM Multimedia Systems Journal, ACM Transactions on Internet Technology (ACM TOIT) and ACM Transactions on Information Systems (ACM TOIS).

**Meng Wang:** Dr. Meng Wang is currently a research staff member in the National University of Singapore. Previously he worked as an associate researcher in Microsoft Research Asia and a research scientist in a start up in the Bay area. Dr. Wang's research interests include multimedia content analysis, tagging, search, and large-scale computing. Dr. Wang has authored about 80 technical papers in these areas. He is an associate editor of Information Sciences, an associate editor of Neorocomputing, and a guest editor of the special issues for Multimedia Systems Journal, Multimedia Tools and Applications, and Journal of Visual Communication and Image
Representation. He received the Best Paper Award continuously from the ACM International Conference on Multimedia 2010 and 2009, and the Best Paper Award from the International Multimedia Modeling Conference 2010.

**Xian-Sheng Hua:** Dr. Hua is now a Principle Research and Development Lead with Microsoft Bing, working on multimedia search. Before that, he had been with Microsoft Research Asia, Beijing, for nine years, where he was a Lead Researcher with the media computing group. His current research interests are in the areas of image and video content analysis, multimedia search, management, authoring, sharing, mining, advertising and mobile multimedia computing. He has authored or co-authored more than 190 publications in these areas and has more than 60 filed patents or pending applications. He serves as an Associate Editor of IEEE Transactions on Multimedia, Associate Editor of ACM Transactions on Intelligent Systems and Technology, Editorial Board Member of Advances in Multimedia and Multimedia Tools and Applications, and editor of Scholarpedia (Multimedia Category).
Tutorial HAA: Human action analysis with 2D and 3D sensors

Junsong Yuan, Nanyang Technological University, Singapore
Zicheng Liu, Microsoft Research Redmond, USA

Time: 13:30-17:00, 9th July 2012
Room: 111

Human action analysis is a critical task and emerging topic in many multimedia applications. In the past few years, there has been a lot of progress in action recognition with conventional 2D video cameras. Effective techniques have been developed to address many challenging issues in real world environments such as dynamic and cluttered background and occlusions. More recently, the availability of commodity depth cameras has brought a new level of excitement to this field. Rapid progress has been made that addresses new technical issues in action recognition with 3D depth cameras. In this tutorial, we introduce the basics for human action analysis, using both regular and depth cameras. The topics cover the action analysis using depth cameras, action and abnormal event detection in surveillance videos, as well as action analysis in user-generated consumer videos, such as movies and Youtube videos.

Brief Biography:

Zicheng Liu: Dr. Zicheng Liu is a senior researcher at Microsoft Research, Redmond. His current research interests include human activity recognition, face modeling and animation, and multimedia collaboration. He received a Ph.D. in Computer Science from Princeton University. He has published over 80 papers in peer-reviewed international journals and conferences, and holds over 50 granted patents. He co-authored a book entitled “Face Geometry and Appearance Modeling: Concepts and Applications”, Cambridge University Press, 2011. He has served in the technical committees for many international conferences. He is a technical co-chair of both 2010 and 2014 ICME, a co-organizer of 2011 and 2012 CVPR Workshops on Human Activity Understanding from 3D Data, and a general co-chair of 2012 IEEE Visual Communication and Image Processing. He is an associate editor of both Machine Vision and Applications journal and Journal of Visual Communications and Image Representation. He is a senior member of IEEE.

Junsong Yuan: Junsong Yuan is a Nanyang Assistant Professor at Nanyang Technological University (NTU), Singapore, and currently the program director of video analytics at Infocomm Center of Excellence, School of EEE, NTU. He received the EECS outstanding Ph.D. Thesis award from Northwestern University, USA, and the Doctoral Spotlight Award from IEEE Conf. on Computer Vision and Pattern Recognition (CVPR'09). He has been invited to present his
action detection work in a number of universities and industry labs in the past three years, including UIUC, Peking University, Chinese Academy of Science, Microsoft Research Redmond, Motorola Applied Research Center, Nokia Research Center etc. He has published 60 papers in peer-reviewed journals and conferences, and filed three US patents and one international patent. He is the co-chair of two workshops at IEEE CVPR’12 and has served as editor, co-chair, PC member and reviewer of many international journals and conferences/workshops/special sessions.
Tutorial LMVDW: Learning and Mining with Visual Data on the Web

Jiebo Luo, University of Rochester, USA

Time: 13:30-17:00, 9th July 2012
Room: 112

Increasingly rich and large-scale image related data are being posted to social network and media sharing websites. Researchers from multidisciplinary areas, including machine learning, computer vision, data mining, and human machine interaction, are developing methods for employing such multi-modality data for various applications. This tutorial provides an overview of representative recent advances in this arena of opportunities and challenges.

First, we discuss Web 2.0 which gave rise to the enormous amount of visual data on the Web. Next, we describe a new computational machinery, Heterogeneous Feature Machines (HFM), which was proposed to address the multi-modality feature issue in image and video recognition by building a kernel logistic regression model based on similarities that combine different features and distance metrics with group LASSO constraints. Second, we review the recently popular data driven approaches that has seemingly diminished the need for machine learning in favor of simply relying on large scale data. We then show why it is important to address crucial machine learning issues in order to intelligently leverage large scale web data to solve problems such as searching personal images directly by keywords and recognizing events in personal videos. Finally, we focus on a new area of current research where trends and sentiments can be drawn by mining the sharing patterns of uploaded and downloaded social multimedia. By aggregating large scale multimedia data across millions of Internet users, we reveal the wisdom that is embedded in social multimedia sites for product and service recommendations and suggestions, as well as for prediction and forecasting in politics, economics, and marketing.

Brief Biography:

Jiebo Luo: Jiebo Luo joined the Computer Science Department at the University of Rochester in Fall 2011 after a prolific career of over fifteen years at Kodak Research Laboratories, where he was a Senior Principal Scientist leading research and advanced development. He has been involved in numerous technical conferences, including serving as the general chair of ACM CIVR 2008, program co-chair of IEEE CVPR 2012 and ACM Multimedia 2010, area chair of IEEE ICASSP 2009-2011, ICIP 2008-2011, CVPR 2008 and ICCV 2011, and an organizer of ICME 2006/2008/2010 and ICIP 2002. Currently, he serves on several IEEE Technical Committees (IVMSP, MMSP, and
MLSP) and conference steering committees (ACM ICMR and IEEE ICME). He is the Editor-in-Chief of the Journal of Multimedia, and has served on the editorial boards of the IEEE Transactions on Pattern Analysis and Machine Intelligence, IEEE Transactions on Multimedia, IEEE Transactions on Circuits and Systems for Video Technology, Pattern Recognition, Machine Vision and Applications, and Journal of Electronic Imaging. He is a Fellow of the SPIE, IEEE, and IAPR. His research interests span image processing, computer vision, machine learning, data mining, medical imaging, and ubiquitous computing. He has been an advocate for contextual inference in semantic understanding of visual data, and continues to push the frontiers in this area by incorporating geo-location context and social context. A recent research thrust focuses on exploiting social media for machine learning, data mining, and human-computer interaction, for example, mining the wisdom of crowds for social, political, and economic prediction and forecasting. He has published extensively with over 180 papers and 60 US patents.
<table>
<thead>
<tr>
<th>Name</th>
<th>Page Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adamek, Tomasz</td>
<td>73, 80</td>
</tr>
<tr>
<td>Adams, Brett</td>
<td>123</td>
</tr>
<tr>
<td>Alvarado, Luciano</td>
<td>104, 84</td>
</tr>
<tr>
<td>Ahmad, David</td>
<td>92, 97, 129</td>
</tr>
<tr>
<td>Ahmed, Dewan Tanvir</td>
<td>135, 108</td>
</tr>
<tr>
<td>Ahn, Ilkoo</td>
<td>52, 62</td>
</tr>
<tr>
<td>Alam, Kiyooharu</td>
<td>110</td>
</tr>
<tr>
<td>Alamri, Atif</td>
<td>109</td>
</tr>
<tr>
<td>Al-Attas, Reem</td>
<td>73, 79</td>
</tr>
<tr>
<td>Alexandre, M.</td>
<td>111</td>
</tr>
<tr>
<td>Alface, Patrice Rondao</td>
<td>131</td>
</tr>
<tr>
<td>Alghamdi, Abdullah</td>
<td>135</td>
</tr>
<tr>
<td>Al-Hrath, Rajwa</td>
<td>137</td>
</tr>
<tr>
<td>Almaghribi, Rana</td>
<td>137</td>
</tr>
<tr>
<td>Al-Osman, Hussein</td>
<td>137</td>
</tr>
<tr>
<td>Alwar, Narayanan</td>
<td>116</td>
</tr>
<tr>
<td>Amin, Talal Bin</td>
<td>73, 79</td>
</tr>
<tr>
<td>Aminlou, Alireza</td>
<td>104</td>
</tr>
<tr>
<td>Anguera, Xavier</td>
<td>73, 80, 71, 36</td>
</tr>
<tr>
<td>Ariyaratne, Hasitha B</td>
<td>130</td>
</tr>
<tr>
<td>Arnold, Oksana</td>
<td>111, 119</td>
</tr>
<tr>
<td>Au, Oscar C.126</td>
<td>55, 79, 93, 101</td>
</tr>
<tr>
<td>Awrangjeb, Mohammad</td>
<td>117</td>
</tr>
<tr>
<td>Babaguchi, Noboru</td>
<td>110</td>
</tr>
<tr>
<td>Badawi, Hawazin</td>
<td>108</td>
</tr>
<tr>
<td>Baek, Nakhoon</td>
<td>139</td>
</tr>
<tr>
<td>Bai, Hongliang</td>
<td>98</td>
</tr>
<tr>
<td>Baig, Yousuf</td>
<td>113</td>
</tr>
<tr>
<td>Bailey, Colin</td>
<td>91, 105</td>
</tr>
<tr>
<td>Bajic, Ivan V.</td>
<td>51, 68</td>
</tr>
<tr>
<td>Bampi, Sergio</td>
<td>104, 84, 74, 82</td>
</tr>
<tr>
<td>Banba, Keisuke</td>
<td>132</td>
</tr>
<tr>
<td>Bao, Xulei</td>
<td>73, 80</td>
</tr>
<tr>
<td>Barakat, M.S.</td>
<td>86</td>
</tr>
<tr>
<td>Beick, Hans-Rainer</td>
<td>118</td>
</tr>
<tr>
<td>Bernardini, Andrea</td>
<td>128</td>
</tr>
<tr>
<td>Besacier, Laurent</td>
<td>92, 97</td>
</tr>
<tr>
<td>Bhatnagar, Gaurav</td>
<td>132</td>
</tr>
<tr>
<td>Bhuyan, Laxmi</td>
<td>74, 82</td>
</tr>
<tr>
<td>Bioglio, Valerio</td>
<td>56, 69</td>
</tr>
<tr>
<td>Biswas, P.K.</td>
<td>102</td>
</tr>
<tr>
<td>Bland, Denise</td>
<td>53, 59</td>
</tr>
<tr>
<td>Böck, Ronald</td>
<td>60, 112</td>
</tr>
<tr>
<td>Boeszoernenyi, Laszlo</td>
<td>139</td>
</tr>
<tr>
<td>Bonastre, Jean-Francois</td>
<td>114</td>
</tr>
<tr>
<td>Borghesani, Daniele</td>
<td>72, 77</td>
</tr>
<tr>
<td>Böszörményi, Laszlo</td>
<td>92, 97, 98</td>
</tr>
<tr>
<td>Boujemaa, Nozha</td>
<td>60</td>
</tr>
<tr>
<td>Boushey, C.J.</td>
<td>108, 108</td>
</tr>
<tr>
<td>Bouzerdoum, Abdesselam</td>
<td>52, 62</td>
</tr>
<tr>
<td>Braeckman, Geert</td>
<td>66</td>
</tr>
<tr>
<td>Branch, Philip</td>
<td>95, 103</td>
</tr>
<tr>
<td>Brown, John N.A.</td>
<td>37, 71</td>
</tr>
<tr>
<td>Burnett, Ian S.</td>
<td>125</td>
</tr>
<tr>
<td>But, Jason</td>
<td>95, 103</td>
</tr>
<tr>
<td>Calic, J.</td>
<td>74, 82</td>
</tr>
<tr>
<td>Calic, Janko</td>
<td>132</td>
</tr>
<tr>
<td>Callet, Patrick L.</td>
<td>115, 122</td>
</tr>
<tr>
<td>Campbell, Neill</td>
<td>52, 62</td>
</tr>
<tr>
<td>Cao, Liangliang</td>
<td>88, 96, 111</td>
</tr>
<tr>
<td>Cao, Xiaochun</td>
<td>88, 96</td>
</tr>
<tr>
<td>Cernocky, Jan</td>
<td>114</td>
</tr>
<tr>
<td>Chai, Jun</td>
<td>101</td>
</tr>
<tr>
<td>Chan, S.-H.Gary</td>
<td>69, 86</td>
</tr>
<tr>
<td>Chandran, Vinod</td>
<td>102</td>
</tr>
<tr>
<td>Chang, Chia-Ming</td>
<td>114</td>
</tr>
<tr>
<td>Chang, Chia-Yang</td>
<td>114</td>
</tr>
<tr>
<td>Chang, Edward Y.</td>
<td>86, 115</td>
</tr>
<tr>
<td>Chang, Fangzhao</td>
<td>92, 97</td>
</tr>
<tr>
<td>Chang, Ken-Ning</td>
<td>122, 118</td>
</tr>
<tr>
<td>Chang, Kuo-Wei</td>
<td>98</td>
</tr>
<tr>
<td>Chang, Shih-Ying</td>
<td>95, 103</td>
</tr>
<tr>
<td>Chang, Yilin</td>
<td>120</td>
</tr>
<tr>
<td>Chang, Yung-Chang</td>
<td>89, 100</td>
</tr>
<tr>
<td>Chapin, William</td>
<td>122</td>
</tr>
<tr>
<td>Chaudhury, Santanu</td>
<td>85</td>
</tr>
<tr>
<td>Chean, Yee-Choy</td>
<td>110</td>
</tr>
<tr>
<td>Chea, Chang Wen56</td>
<td>59, 62, 90, 105, 27</td>
</tr>
<tr>
<td>Chean, Chun-Chia</td>
<td>89, 100</td>
</tr>
<tr>
<td>Chean, Fang-min</td>
<td>63</td>
</tr>
<tr>
<td>Chean, Ginny</td>
<td>89, 100</td>
</tr>
<tr>
<td>Chean, Heng-Yow</td>
<td>122, 118</td>
</tr>
<tr>
<td>Chean, Homer H.</td>
<td></td>
</tr>
<tr>
<td>Chean, Hua-Tsung49</td>
<td>58, 110, 123</td>
</tr>
<tr>
<td>Chean, Ke</td>
<td>83</td>
</tr>
<tr>
<td>Chean, Sao-Jie</td>
<td>84</td>
</tr>
<tr>
<td>Chean, Shen-Chi</td>
<td>53, 59</td>
</tr>
<tr>
<td>Chean, Wei-Chao</td>
<td>62</td>
</tr>
<tr>
<td>Chean, Wen-Chieh</td>
<td>122, 118</td>
</tr>
<tr>
<td>Chean, Yi-Cheng</td>
<td>110</td>
</tr>
<tr>
<td>Chean, Ying</td>
<td>120</td>
</tr>
</tbody>
</table>
Chen, Yongquan .............. 139
Chen, Yu-Jung............... 114
Chen, Zhi .................. 133
Cheng, Bo-Wei ............. 102
Cheng, Chia-Yun .......... 89, 100
Cheng, Eva ................ 125
Cheng, Jian ................ 98
Cheng, Wen-Huang .......... 97
Cheslack-Postava, Ewen94, 106
Cheung, Gene ............ 51, 68, 126
Chi, Zheru ................. 112
Chia, Liang-Tien ........... 55, 79
Chiao, Hsin-Ta .......... 95, 103
Chiarandini, Luca .......... 50, 76
Chien, Shao-Yi81, 75, 83, 101, 63, 114
Chiou, Chuan-Chi .......... 89, 100
Chiu, Min-Hao ............ 89, 100
Chiu, Tzu-Hsuan .......... 98, 98
Chiu, Yi-Jen ................ 89, 100
Choi, Ick-hyun ............ 113
Choi, Jaeyeong ........... 50, 76
Choi, Jaz Hee-jeong ........ 128
Chou, Chien-Li ........... 49, 58, 110
Chou, Philip A. .......... 52, 62
Chou, Ting-Ting .......... 118
Choubassi, Maha El ....... 136
Chouiten, Mehdi ........... 127
Chu, Chung-Hua .......... 95, 103
Chu, Yeh-Lin ............. 89, 100
Chuang, Yung-Yu ........... 62
Ci, Song .................. 56, 69, 121
Ciarlini, Angelo .......... 90, 105
Cock, Jan De .............. 131, 116
Codella, Noel C.F. ........ 88, 96
Coluccia, Giulio .......... 93, 100
Cootes, Timothy ........... 114
Corazza, Giovanni E ...... 114
Cordina, Mario .......... 93, 101
Costantini, Luca .......... 128
Courboulayy, Vincent ...... 115
Cox, Philip ................ 52, 62
Cucchiara, Rita .......... 72, 77
Cui, Qiu .................... 103
Cui, Yue .................... 134, 117
Da Luz, Antonio .......... 86
Da Silva, Matthieu Perreira115, 122
Dai, Jingjing ............. 93, 101
Dai, Lican .................. 53, 59
Dai, Zhijun ................ 117
de A.Araujo, Arnaldo ....... 86
de Lima, Edirlei Soares .90, 105
De Neve, Wesley .......... 78
Debono, Carl J ............ 93, 101
Deguchi, Daisuke .......... 66
Delcourt, Jonathan ......... 122
Delogu, Cristina ........... 128
Delp, E.J. ................... 108, 108
Deng, Huiping ............. 83
Deng, Robert H ............. 57, 65
Deng, Weihong ........... 135, 128
Denis, Leon ................ 132
Dhall, Abhinav ............. 53, 59
Didier, Jean-Yves .......... 127
Ding, Wenpeng ............. 117
Dong, Mingzhi ............ 135, 128
Dong, Pei ................... 78
Dong, Shengfu ............. 63
Dong, Shi ................... 83
Dooms, Ann ................. 66
Du, Ruo .................... 137
Du, Yangzhou ............ 89, 100
Duan, Ling-Yu ............ 48, 58, 104
Dugelay, Jean-Luc ......... 66
Dumont, Émilie .......... 98
Ebrahimi, Touradj91, 105, 75, 83
Effelsberg, Wolfgang ....... 85, 123
Eggink, Jana ............... 53, 59
Eid, Mohamad .......... 108
Ekambaram, Venkatesan50, 76
Ekenel, Hazim Kemal ... 136
El-Saban, Motaz ........... 115
Epain, N. .................... 73, 80
Evans, Nicholas ........... 66
Fahim-Hashemi, Hana ....... 104
Falelakis, Manolis ........ 122
Fan, Ivy ...................... 97
Fan, Jian ................... 112
Fan, Lixin ................... 86
Fan, Xiaoju ................. 51, 68
Fan, Yibo ................... 89, 100
Fang, Lu ..................... 55, 79
Fang, Quan .................. 60
Fang, Siyuan ............... 52, 62
Fang, Xiangzhong ......... 81
Fatemi, Omid ............... 104
Faza, Ayman ............... 122
Feijó, Bruno ............... 90, 105
Feng, Dagan ............... 112, 130, 121
Hrassnig, Peter .................. 139
Hsiao, Te-Chi................... 89, 100
Hsieh, Liang-Chi................. 98
Hsu, Chun-Chieh ............... 49, 58
Hsu, Pin-Huan .................. 89, 100
Hsu, Winston H. ............... 98
Hsu, Winston ................... 98
Hu, Roland ...................... 85
Hu, Ruimin ..................... 57, 65, 83, 81
Hu, Wei ........................ 126
Hu, Yahui ....................... 56, 69
Hu, Yiqun ...................... 102
Hu, Yongjian ................... 112
Hu, Yongli ...................... 136
Hua, Gang ....................... 88, 96
Hua, Kien A ..................... 139, 121
Huang, Chong ................... 98
Huang, De-An ................... 80, 55, 79
Huang, Di ......................... 65
Huang, Jing ..................... 93, 101
Huang, Jun ....................... 123
Huang, Kebin .................... 57, 65, 81
Huang, Qingming ............... 104
Huang, Thomas S .. .... 81, 72, 77
Huang, Tiejun ................... 104, 66
Huang, Tsung-Yau ............... 62
Huang, Yan-Hsiang ............. 62
Huang, Yu-Hsiang ............... 62
Huang, Yun ....................... 55, 79
Huang, Zhen ..................... 73, 80
Huang, Tiejun ................... 51, 68
Hung, Jacqueline ............... 97
Hung, Yao-Ling ................ 97
Hung, Yi-Ping ................... 53, 59
Huo, Junyan .................... 120
Huo, Longsyan .................. 63
Hwang, Wen-Liang .............. 84
Ide, Ichiro ....................... 66
Ishikawa, Masatoshi ............ 85
Izz, Mostafa ..................... 115
Jaimes, Alejandro .......... 50, 76
Jang, Hyun I ..................... 85
Jang, Ling-Sheng ............... 102
Jantke, Klaus P ................. 111, 119
Järvinen, Sari ................. 127
Javatdalah, Abbas ............. 135
Jeong, Jin-Woo ................ 78
Jia, Huizhu ...................... 103
Jia, Wenjing ................... 90, 105
Jia, Yunde ...................... 48, 58, 48, 58
Jiang, Junjun ................... 57, 65, 83, 81
Jiang, Menglin ................. 66
Jiang, Wei ...................... 88, 96
Jin, Bin ......................... 123
Jin, C.T. ........................ 73, 80
Jin, Jesse S ..................... 134, 117
Joshi, Jyoti ..................... 53, 59
Ju, Chi-Cheng .................. 89, 100
Judnich, John .................. 63
Julia, Jérémie .................. 119
Jun, Ohya ....................... 136
Jung, Jongpil .................. 89, 100
Kaheel, Ayman ................ 115
Kaiser, Rene ................... 122
Kakar, Pravin .................. 57, 65
Kan, Min-Yen .................. 132
Kanbara, Masayuki ........... 63
Kang, Li-Wei .................... 55, 79
Kankanhalli, Mohan S .......... 98
Kao, Chieh-Chi ................ 101
Kao, Chieh-Kai ................ 120
Karam, Lina J .................. 120
Karime, Ali ..................... 137
Karimi, Nader ................ 55, 79
Kato, Makoto P ................ 60
Kawai, Yukiko ................. 139
Kawasaki, Hiroshi ............. 139
Kender, John R ................. 92, 97
Kerr, D ......................... 108
Khanna, N ...................... 108
Khirallah, Chadi ............... 56, 69
Kiess, Johannes ............... 123
Kim, Changick ................. 52, 62
Kim, Deok-Yeon ............... 66
Kim, Giwon ..................... 89, 100
Kim, Ilseo ....................... 53, 59
Kim, Jungho ................. 89, 100
Kim, Se Min .................... 78
Kittler, Josef ................... 114
Ko, ByoungChul ............... 66
Kogler, Marian ................ 139
Kondoz, A.M ................... 125, 131
Kondoz, Ahmet ................. 132
Kong, Yu ......................... 48, 58
Kopf, Stephan ................. 85, 123
Korhonen, Jari ................. 115
Kozintsev, Igor ................ 136
Kraetschmer, Armin .......... 139
Krätschmer, Armin .......... 98
Ma, Yana ............................ 97
Magli, Enrico .......................... 56, 69, 93, 100
Malekmohamadi, Hossein 125
Malik, Aamir S. .......................... 116
Mallem, Malik .......................... 127
Marcel, Sébastien .......................... 114
Mariacher, Thomas .......................... 98, 139
Marziliano, Pina .......................... 73, 79
Matějka, Pavel .......................... 114
Matrouf, Driss .......................... 114
Matsuda, Yuji .......................... 49, 59
Mattos, Julio .......................... 84
Mays, Joe .......................... 116
McCool, Chris .......................... 114
McGarry, Michael P. .......................... 121
Mehta, Sachin .......................... 132
Mei, Shaohui .......................... 130
Mei, Tao .......................... 50, 76, 90, 105, 86
Meira, Silvio R.L. .......................... 111
Melkote, Vinay .......................... 51, 68
Meng, Da .......................... 50, 76
Meng, Tao .......................... 92, 97
Miao, Dan .......................... 125
Michalakopoulos, Spiros 122
Miki, Shohei .......................... 110
Min, Hyun-seok .......................... 78
Ming, Yue .......................... 63
Mirmahboub, Behzad 55, 79
Montgomery, Robert .......................... 122
Morrell, Martin J. .......................... 139
Mudugamuwa, Damith J. 90, 105
Mudunuri, Vijay .......................... 139
Mukherjee, Debargha 128
Mukherjee, Dibyendu .......................... 137
Müller, Christopher .......................... 139
Müller, Karsten 83
Munteanu, Adrian .......................... 132
Murase, Hiroshi 66
Murshed, Manzur 134, 135
Mzoughi, Olfa .......................... 60
Nakaji, Yusuke .......................... 111
Nallusamy, Rajarathnam .......................... 132
Nam, Jae-Yeal 66
Natsev, Apostol 88, 96
Nazari, Abolfazl 95, 103
Negi, Sumit 85
Neto, Manoel C Marques 111
Ngan, King Ng 120
Ngo, Thang Duc 140
Nichols, Steven 139
Nimmala, Raghavendra 122
Nitta, Naoko .......................... 110
Niu, Biao .......................... 98
Niu, Xiang 86
Noland, Katy 101
Ogunbona, Philip .......................... 78
Oh, Sangmin 53, 59
Ohbuchi, Ryutaro 125, 132
Ohishi, Yuya 125
Ohkita, Yukil 125
Ohshima, Hiroaki 60
Okade, Manish 102
Oku, Hiromasa 85
Okumura, Kohei 85
Okura, Fumio 63
Omidyeganeh, Mona 135
Opfermann, Jan 118
Pallotti, Emiliano 128
Pan, Ziyuan 56, 68
Pang, Chao 93, 101
Pankanti, Sharath 61
Pantuwong, Natapon 94, 106
Paul, Manoranjan 78
Peltola, Johannes 127
Peng, Guan-Ju 84
Peng, Qiang 51, 68
Peng, Xiao-Hong 91, 105
Peng, Ya-ти 89, 100
Peng, Yu 134, 117
Perera, A.G.Amitha 53, 59
Perkis, Andrew 91, 105, 75, 83
Pham, Tuan Q. 52, 62
Phan, Sang 140
Philippou-Hübner, David 60, 112
Phung, Dinh Q. 57, 65
Phung, Son Lam 52, 62
Pickering, M.R. 108
Pieters, Bart 131
Pietikäinen, Matti 114
Pletzer, Felix 98, 139
Poh, Norman 114
Poignant, Johann 92, 97
Porto, Marcelo 104
Pouladzadeh, Parisa 137
Pourashraf, Pedram 121
Pozzer, Cesar 90, 105
Preneel, Bart 66
Pullano, Valentina 114
Punchihewa, Amal 113
Qasim, Iqbal 78
<table>
<thead>
<tr>
<th>Name</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Qian, Ruohan</td>
<td>133</td>
</tr>
<tr>
<td>Qian, Yueliang</td>
<td>60, 134</td>
</tr>
<tr>
<td>Qin, Shiyin</td>
<td>70</td>
</tr>
<tr>
<td>Qin, Wenyu</td>
<td>136</td>
</tr>
<tr>
<td>Qiu, Jinbo</td>
<td>83</td>
</tr>
<tr>
<td>Qiu, Jingbang</td>
<td>123</td>
</tr>
<tr>
<td>Qiu, Meikang</td>
<td>133</td>
</tr>
<tr>
<td>Quénot, Georges</td>
<td>92, 97, 98</td>
</tr>
<tr>
<td>Qurishi, M.Al.</td>
<td>135</td>
</tr>
<tr>
<td>Radwan, Ibrahim</td>
<td>53, 59</td>
</tr>
<tr>
<td>Rahman, Md Hafizur</td>
<td>108</td>
</tr>
<tr>
<td>Rajakaruna, R.M.T.P.</td>
<td>74, 82</td>
</tr>
<tr>
<td>Rajan, Deepu</td>
<td>102, 55, 79</td>
</tr>
<tr>
<td>Ramchandran, Kannan</td>
<td>50, 76</td>
</tr>
<tr>
<td>Rane, Shantanu</td>
<td>66</td>
</tr>
<tr>
<td>Ratcliff, Joshua</td>
<td>136</td>
</tr>
<tr>
<td>Reale, Michael</td>
<td>90, 105</td>
</tr>
<tr>
<td>Refaat, Mahmoud</td>
<td>115</td>
</tr>
<tr>
<td>Rehman, Abdul</td>
<td>75, 82</td>
</tr>
<tr>
<td>Reiss, Joshua D.</td>
<td>139</td>
</tr>
<tr>
<td>Ren, Guangliang</td>
<td>120</td>
</tr>
<tr>
<td>Ren, Jennifer Y.</td>
<td>92, 97</td>
</tr>
<tr>
<td>Ren, Ju</td>
<td>101</td>
</tr>
<tr>
<td>Ren, Zhixiang</td>
<td>102, 55, 79</td>
</tr>
<tr>
<td>Renaud, Ron</td>
<td>83</td>
</tr>
<tr>
<td>Rinner, Bernhard</td>
<td>98, 139</td>
</tr>
<tr>
<td>Ritz, C.H.</td>
<td>86</td>
</tr>
<tr>
<td>Ro, Yong Man</td>
<td>78</td>
</tr>
<tr>
<td>Rose, Kenneth</td>
<td>51, 68</td>
</tr>
<tr>
<td>Roy, Suman D.</td>
<td>50, 76</td>
</tr>
<tr>
<td>Ruan, Qiuqi</td>
<td>63</td>
</tr>
<tr>
<td>Rzepecki, Jan</td>
<td>122</td>
</tr>
<tr>
<td>S., Eduardo</td>
<td>111</td>
</tr>
<tr>
<td>Sabbavarapu, Karuna</td>
<td>139</td>
</tr>
<tr>
<td>Saddik, Abdulkotaleb El137, 108</td>
<td></td>
</tr>
<tr>
<td>Safaei, Farzad</td>
<td>121</td>
</tr>
<tr>
<td>Saha, Ashirbani</td>
<td>132</td>
</tr>
<tr>
<td>Sakazawa, Shigeyuki</td>
<td>88, 96</td>
</tr>
<tr>
<td>Salih, Yasir</td>
<td>116</td>
</tr>
<tr>
<td>Samavi, Shadrok</td>
<td>55, 79</td>
</tr>
<tr>
<td>Sampaio, Felipe</td>
<td>104, 84</td>
</tr>
<tr>
<td>Sanchez, Gustavo</td>
<td>104</td>
</tr>
<tr>
<td>Sang, Jitao</td>
<td>60</td>
</tr>
<tr>
<td>Santarcangelo, Joseph</td>
<td>129</td>
</tr>
<tr>
<td>Santos, Celso A.S.</td>
<td>111</td>
</tr>
<tr>
<td>Sarhan, Nabil J.</td>
<td>69</td>
</tr>
<tr>
<td>Satoh, Shin'ichi</td>
<td>140</td>
</tr>
<tr>
<td>Schaik, A.van.</td>
<td>73, 80</td>
</tr>
<tr>
<td>Schellkens, Peter</td>
<td>66, 114</td>
</tr>
<tr>
<td>Schierl, Thomas</td>
<td>114</td>
</tr>
<tr>
<td>Schoeffmann, Klaus</td>
<td>92, 97, 129</td>
</tr>
<tr>
<td>Schöffmann, Klaus</td>
<td>139</td>
</tr>
<tr>
<td>Schonfeld, Dan</td>
<td>93, 101</td>
</tr>
<tr>
<td>Schulz, André</td>
<td>111</td>
</tr>
<tr>
<td>Schwarz, Heiko</td>
<td>83</td>
</tr>
<tr>
<td>Semsarzadeh, Mehdi</td>
<td>95, 103</td>
</tr>
<tr>
<td>Sengupta, Somnath</td>
<td>120, 131</td>
</tr>
<tr>
<td>Seshadrinathan, Kalpana</td>
<td>136</td>
</tr>
<tr>
<td>Seyedebrahimi, Mirghiasaldin91, 105</td>
<td></td>
</tr>
<tr>
<td>Shafique, Muhammad</td>
<td>74, 82</td>
</tr>
<tr>
<td>Shah, Pratik</td>
<td>122</td>
</tr>
<tr>
<td>Shang, Yi</td>
<td>85</td>
</tr>
<tr>
<td>Shao, Junyao</td>
<td>130</td>
</tr>
<tr>
<td>Sharrab, Yousef O.</td>
<td>69</td>
</tr>
<tr>
<td>Shen, Jialie</td>
<td>86</td>
</tr>
<tr>
<td>Shen, Sha</td>
<td>89, 100</td>
</tr>
<tr>
<td>Shen, Weiwei</td>
<td>89, 100</td>
</tr>
<tr>
<td>Shen, Yanfei</td>
<td>131</td>
</tr>
<tr>
<td>Shi, Yun Qing</td>
<td>66</td>
</tr>
<tr>
<td>Shi, Yunhui</td>
<td>117</td>
</tr>
<tr>
<td>Shi, Zhiru</td>
<td>131</td>
</tr>
<tr>
<td>Shi, Zhongbo</td>
<td>104</td>
</tr>
<tr>
<td>Shirani, Shahram</td>
<td>55, 79</td>
</tr>
<tr>
<td>Shirmohammadi, Shervin95, 103, 109, 135, 137</td>
<td></td>
</tr>
<tr>
<td>Shyu, Mei-Ling</td>
<td>92, 97</td>
</tr>
<tr>
<td>Siddiquie, Behjat</td>
<td>61</td>
</tr>
<tr>
<td>Sim, Terence</td>
<td>57, 65</td>
</tr>
<tr>
<td>Skildheim, Kim</td>
<td>75, 83</td>
</tr>
<tr>
<td>Slowack, Jürgen</td>
<td>116</td>
</tr>
<tr>
<td>Smith, John R.</td>
<td>88, 96</td>
</tr>
<tr>
<td>Smole, Martin</td>
<td>139</td>
</tr>
<tr>
<td>Soleymani, Mohammad</td>
<td>39, 71</td>
</tr>
<tr>
<td>Song, Byung Cheol</td>
<td>113</td>
</tr>
<tr>
<td>Song, Wei</td>
<td>51, 68</td>
</tr>
<tr>
<td>Song, Xi</td>
<td>48, 58</td>
</tr>
<tr>
<td>Song, Yun</td>
<td>131</td>
</tr>
<tr>
<td>Sourina, Olga</td>
<td>102</td>
</tr>
<tr>
<td>Speranza, Filippo</td>
<td>83</td>
</tr>
<tr>
<td>Stankovic, Vladimir</td>
<td>56, 69</td>
</tr>
<tr>
<td>Stevens, Christoph</td>
<td>131</td>
</tr>
<tr>
<td>Stirling, D.A.</td>
<td>86</td>
</tr>
<tr>
<td>Stroila, Matei</td>
<td>116</td>
</tr>
<tr>
<td>Su, Hai</td>
<td>133</td>
</tr>
<tr>
<td>Su, Huayou</td>
<td>101</td>
</tr>
<tr>
<td>Su, Li</td>
<td>104</td>
</tr>
<tr>
<td>Su, Po-Yen</td>
<td>120</td>
</tr>
<tr>
<td>Su, Yu-Chuan</td>
<td>98</td>
</tr>
<tr>
<td>Sudha, N.</td>
<td>57, 65</td>
</tr>
</tbody>
</table>
Website: [http://goo.gl/maps/c4VH](http://goo.gl/maps/c4VH)

1. Conference Venue & Welcome Reception: Melbourne Convention Centre
2. Conference Banquet: Crown Towers, Melbourne Casino Function Hall (Level 1 - River Room 8 Whiteman Street, Southbank VIC 3006, Australia)
3. Hotel: Melbourne Marriott Hotel
4. Hotel: Citigate Melbourne Hotel
5. Hotel: Crowne Plaza Hotel Melbourne
6. Hotel: Crown Promenade
7. Hotel: Hilton Melbourne South Wharf - South Wharf
8. Flinders Street Station
Convention Center MAP

MCEC Princinct & Transport Map
Emergency Procedure

Internal Telephone Numbers:

In any emergency notify your Event Security provider immediately, or dial internally from the nearest wall phone:

Ext: 6666 Fire, Medical, Security (emergency only) enquiries MCEC Security Control Centre will dial 000 to co-ordinate Emergency Services response as required.
Ext: 8333 Non-emergency Security enquiries (or dial 9235 8333 from any phone)

Fire:
On discovering a Fire:
Dial Ext: 6666 (on internal phones) or (03) 9235 8333 from any phone.
Familiarise yourself with the nearest fire exit and follow Warden’s instructions. Do not use the lifts. Only trained Security personnel or Wardens may use fire extinguishers if it is safe.

Medical Emergencies:
In any Medical emergency notify your Event Security or First Aid provider immediately, or report First Aid/Medical incidents to the Security Control Centre:
Dial Ext: 6666 (on internal phones) or (03) 9235 8333 from any phone.

Evacuation:
In the event of an emergency one of two alarms will sound.

ALERT
The Alert Alarm:
It is operated from the building Emergency Warning Intercommunication System. It is designed to alert everyone within the vicinity of a possible emergency. This is only a warning alarm, please standby for further instructions.

The Evacuation Alarm:
It is designed to notify all occupants that an evacuation is necessary. When you hear the Evacuation Alarm all occupants are directed by Wardens to leave via the Emergency Exits. All persons must follow directions issued by the Wardens and assemble at the nearest Evacuation Assembly Area.

Emergency Evacuation Assembly Areas:

In case of an emergency, Wardens will guide you to the most appropriate evacuation point.
<table>
<thead>
<tr>
<th>Area</th>
<th>Evacuation Assembly Point 1</th>
<th>Evacuation Assembly</th>
</tr>
</thead>
<tbody>
<tr>
<td>Melbourne Exhibition Centre</td>
<td>Tea House Area</td>
<td>John Batman Park</td>
</tr>
<tr>
<td>New Melbourne Convention Centre</td>
<td>Flinders Wharf Park (across the new Yarra River)</td>
<td>John Batman Park</td>
</tr>
</tbody>
</table>

**Note:** The Evacuation Assembly Areas may be subject to change at the discretion of the Chief Fire Warden, to suit the location of the emergency, type of emergency, crowd density and wind conditions.

We would like to thank Melbourne Convention and Exhibition Center for providing these maps and related information in this booklet.

This booklet is designed by: Qiang Wu, Jingsong Xu and Jian Zhang.