Excursion: Applications of Computer Vision
12.11.2018

Roxane Licandro - licandro@cvl.tuwien.ac.at
Organisation of the Excursion

- 1 group
- Excursion topic: Computer Vision in Medical Imaging
- You **have to** visit the excursion to pass the course

General Hospital Vienna (AKH), Computational Imaging Research Lab

https://www.wien.gv.at/gallery2/m53/main.php?g2_view=w=core.DownloadItem&g2_itemid=13539
Organisation of the Excursion

- 1 Document per group
  - 3 pages per student including references
- Content:
  - List of participants and functions (who wrote what)
  - Abstract (editor)
  - Problem statement and solution
  - Presentation slides
- Presentation (max. 8 minutes per student)
Organisation of the Excursion

- If you have not attended the lecture on 12th of November 2018
  - Please write an e-mail to licandro@cvl.tuwien.ac.at with your name, student number and e-mail contact to register for the excursion as soon as possible.
- You have to visit the excursion to pass the course.
Excursion Hospital

- **Schedule**
  - **Date:** 13.12.2018, **Time:** 13:00 – 16:00
  - **Meeting point:** 12:45 (s.t.), Währingergürtel 18-20, 1090 Vienna, AKH main entrance
  - **MRI Scanner visit, CIR-Lab Tour**
Excursion Hospital

- Behavior rules during MRI scan in the hospital
  - Confidentiality (Verschwiegenheitspflicht) also for students!
  - Please observe only and follow the instructions onsite
  - Feel free to ask questions
Excursion Hospital

- **Computer Vision Applications in the Hospital**
  - Radiology Explorer
  - Fetal Imaging
  - Deep Learning in Medical Imaging
  - Imaging Biomarkers
  - Longitudinal Modelling
  - Brain and Neuroscience
  - Ophtalmic Image Analysis
  - Anomaly Detection

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**Histological Imaging**

**X-Ray Mammography**
http://img.medscapetatic.com/pi/meds/ckb/35/15935.jpg

**MRI**
https://pixabay.com/de/mri-magnetresonanz-r%26%238211ntgen-sch%26%238211%C3%A4del-782459/

**Ultrasound**
Tasks

- Find and describe computer vision applications
- Partition the responsibility within the group
  - Editor: Sarah El-Sherbiny
  - Presentation master: Manuel Mayerhofer
- Present the results
  - Written document (max. 5 pages)
  - Presentation (max. 8 minutes per student)
<table>
<thead>
<tr>
<th>Date</th>
<th>Event Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>12.11.2018</td>
<td><strong>1. Excursion exercise:</strong> Details on excursion, work plan, work flow, preparations</td>
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<tr>
<td>13.12.2018</td>
<td><strong>2. Exkursion exercise:</strong> Excursion Hospital (13:00 – 16:00)</td>
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<tr>
<td>07.01.2019</td>
<td><strong>3. Excursion exercise:</strong> Discussion of the 1st document, improvements, planning of presentation</td>
</tr>
<tr>
<td>14.01.2019</td>
<td>Deadline Submission of the presentation draft to the presentation master <a href="mailto:manuel.mayerhofer@tuwien.ac.at">Manuel Mayerhofer</a></td>
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</tbody>
</table>
| 21.01.2019   | **Final Presentations:**  
1 Document submission  
1 Presentation submission |

**DEADLINE 1st DRAFT**  
05.01.2019  
Submission to Editor [Sarah El-Sherbiny](mailto:sarah.el-sherbiny@tuwien.ac.at)
Thank you
licandro@cvl.tuwien.ac.at
https://cvl.tuwien.ac.at/course/applications-of-computer-vision-ex/