Excursion: Applications of Computer Vision

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

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**General Hospital Vienna (AKH), Computational Imaging Research Lab**

https://www.wien.gv.at/gallery2/m53/main.php?g2_view=core.DownloadItem&g2_itemId=13539
Organisation of the Excursion

- 1 Document per group
  - max. 5 pages per student including references
- Content:
  - List of participants and functions (who wrote what)
  - Abstract (editor)
  - Problem statement and solution
  - Presentation slides
  - Example: [https://cvl.tuwien.ac.at/course/applications-of-computer-vision-ex/](https://cvl.tuwien.ac.at/course/applications-of-computer-vision-ex/)
- Presentation (max. 8 minutes per student)
Organisation of the Excursion

- If you have not attended the lecture on 28th of October 2019
  - 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: 21.11.2019, Time: 13:00 – 16:00, **Thursday**!
  - Meeting point: 12:45 (s.t.), Währingergürtel 18-20, 1090 Vienna, AKH main entrance
  - MRI scanner visit, CIR-Lab Tour
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
  - Unsupervised Learning - Radiomics
  - Fetal Imaging
  - Deep Learning in Medical Imaging
  - Imaging Biomarkers
  - Longitudinal Modelling
  - Brain and Neuroscience
  - Ophthalmic Image Analysis
  - Anomaly Detection

- X-Ray Mammography
  - [Image: http://img.medscapestatic.com/pi/meds/ckb/35/15935.jpg]

- Ultrasound

- MRI
  - [Image: https://pixabay.com/de/mri-magnetresonanz-r%C3%B6ntgen-sch%C3%A4del-782459/]

- Histological Imaging
Tasks

- Find and describe computer vision applications
- Partition the responsibility within the group
  - Editor
    Marshall Shriner, shriner3@illinois.edu
  - Presentation master
    Tobias van der Werff, e11929162@student.tuwien.ac.at
- Present the results
  - Written document (max. 5 pages incl. references)
  - Presentation (max. 8 minutes per student)
## Schedule

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<thead>
<tr>
<th>Date</th>
<th>Event Description</th>
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</thead>
<tbody>
<tr>
<td>28.10.2019</td>
<td><strong>1. Excursion exercise</strong>: Details on excursion, work plan, work flow, preparations</td>
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<tr>
<td>21.11.2019</td>
<td><strong>2. Exkursion exercise</strong>: Excursion Hospital (13:00 – 16:00)</td>
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<tr>
<td>13.01.2020</td>
<td><strong>3. Excursion exercise</strong>: Discussion of the 1st document, improvements, planning of presentation</td>
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<tr>
<td>19.01.2020</td>
<td>Deadline Submission of the presentation draft to the group presentation master</td>
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<tr>
<td>20.01.2020</td>
<td><strong>Final Presentations</strong>: 1 Document submission 1 Presentation submission</td>
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**DEADLINE 1st DRAFT**
05.01.2020
Submission to editor

[https://cvl.tuwien.ac.at/acv-schedule-1516/](https://cvl.tuwien.ac.at/acv-schedule-1516/)
Thank you

licandro@cvl.tuwien.ac.at

https://cvl.tuwien.ac.at/course/applications-of-computer-vision-ex/