



Excursion: Applications of Computer Vision

12.11.2018

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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=core.DownloadItem&g2_itemId=13539)



https://www.wien.gv.at/gallery2/m53/main.php?g2_view=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

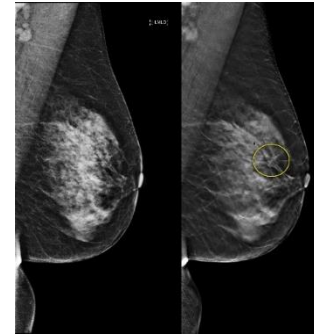


Excursion Hospital

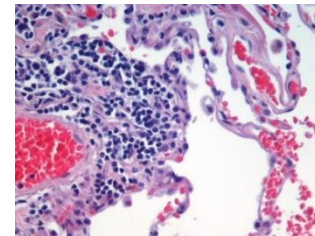
- Behavior rules during MRI scan in the hospital
 - Confidentiality (Verschwiegenheitspflicht) also for students!
 - Please observe only and follow the instructions onsite
 - Feel free to ask questions

Excursion Hospital

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



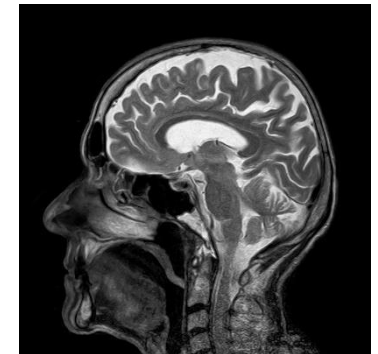
X-Ray Mammography
<http://img.medscapestatic.com/pi/meds/ckb/35/15935.jpg>



Histological Imaging
https://en.wikipedia.org/wiki/File:Emphysema_H_and_E.jpg



Ultrasound
https://en.wikipedia.org/wiki/Ultrasound#/media/File:CRL_Crown_rump_lengh_12_weeks_ecografia_Dr._Wolfgang_Moroder.jpg



MRI
<https://pixabay.com/de/mri-magnetresonanz-r%C3%B6ntgen-sch%C3%A4del-782459/>

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)

Schedule

12.11.2018	1. Excursion exercise: Details on excursion, work plan, work flow, preparations
13.12.2018	2. Exkursion exercise: Excursion Hospital (13:00 – 16:00)
07.01.2019	3. Excursion exercise: Discussion of the 1st document, improvements, planning of presentation
14.01.2019	Deadline Submission of the presentation draft to the presentation master Manuel Mayerhofer
21.01.2019	Final Presentations: 1 Document submission 1 Presentation submission

DEADLINE 1st DRAFT
05.01.2019
Submission to Editor
[Sarah El-Sherbiny](#)



Thank you

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