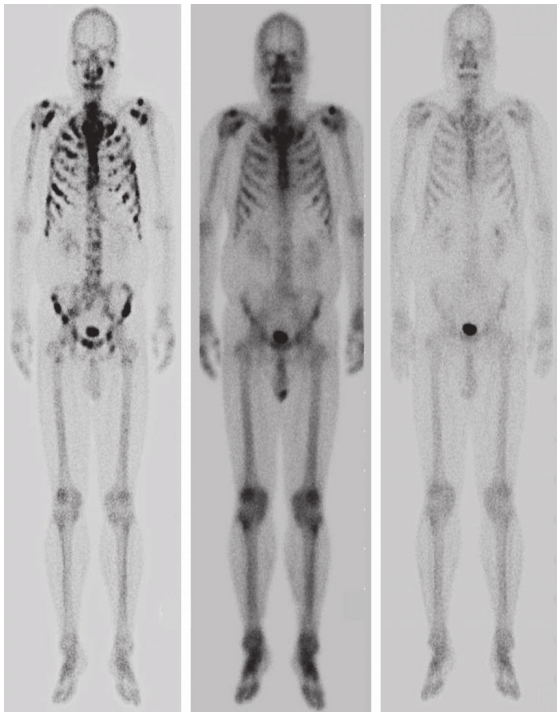
Karlsruher Institut für Technologie

cv:hci @KIT
Computer Vision for Human-Computer Interaction

Usage of CT Projections for improved metastasis detection in bone scintigraphy



The accurate segmentation of anatomical structures plays a crucial role in the analysis of medical imaging data. This research aims to investigate the potential benefits of incorporating computed tomography (CT) projections for anatomy segmentation in radionuclide bone scans (bone scintigraphy) and assess the resulting impact on metastasis prediction. The integration of CT information with radionuclide bone scans has the potential to enhance the anatomical localization and improve the accuracy of metastasis detection, leading to improved patient outcomes.

The results obtained from this research will help inform medical practitioners about the potential benefits of integrating CT information in bone scans, leading to more informed decision-making and improved patient care.

Description:

- Literature research on medical image analysis
- Implementation of state-of-the-art object detection methods

Experience and Knowledge:

- Interest in the topic of computer vision and assistive technology
- Python programming skills and knowledge of PyTorch are desirable

Contact:

- Constantin Seibold [constantin.seibold(at)kit.edu]
- Prof. Dr.-Ing. Rainer Stiefelhagen [Rainer.stiefelhagen(at)kit.edu]
- Prof. Dr. rer. Nat. Dr. Med. Jens Kleesiek [jens.kleesiek(at)uk-essen.de]

If you are interested in this thesis, please feel free to send me (Constantin) your CV and Transcript of Records. We welcome any interesting ideas and look forward to publication at international conferences.

For details check out the papers: https://arxiv.org/pdf/2306.03934.pdf; https://doi.org/10.1016/j.compbiomed.2022.106221