MEDICAL IMAGING: ANALYSIS, VISUALIZATION, AND SECURITY CONCERNS

FREE ONLINE COURSES | MAY 2022

In the context of IMAGE-IN, an MSCA Innovative Training Network (861122) Free participation! Sign-up here: <u>https://forms.gle/KU4zJDXv4pkkB6DM9</u>



Understanding Multiplanar Reconstruction (MPR) in the DICOM world

Rui Jesus, BMD Software

6 May, 15:00-17:00 (CEST)

The ability to visualize and reconstruct image planes from a base image enhances the radiologist's diagnosis by providing alternative viewpoints of the medical imaging data. This course will explore concepts and techniques on how to rebuild a 3D DICOM data volume from a series of 2D images along a single plane of orientation.



A Brief History of Pathology - The Evolution to the Digital Era from a Pathologist Perspective Lina Carvalho, Vitor Sousa, Rui Almeida, Faculty of Medicine, University of Coimbra 13 May, 15:00-16:00 (CEST)

This presentation will include some key historical facts of Pathology, basic notions of macroscopy and microscopy and a pathologist perspective of digital pathology.



Towards histopathological diagnosis supported by artificial intelligence Telmo Adão, Centro de Computação Gráfica

13 May, 16:00-17:00 (CEST)

In this session, different supervised Deep Learning methodologies, dataset annotation processes relying on "learn-by-example" strategies and methods of strengthening the knowledge base provided by these datasets will be presented and discussed, with emphasis on high-resolution microscope imagery for histopathological analysis and diagnosis.

Privacy challenges in medical data sharing

João Almeida, IEETA, University of Aveiro/University of A Coruña 20 May, 15:00-16:00 (CEST)

Data sharing in health studies can be innovative and capable of improving decision-making procedures, however, this action may raise certain issues by compromising people's privacy. Over the last years, different strategies were proposed to address these challenges, and being aware of such problems and solutions is essential when dealing with sensitive data.



Using Rust to create fast and secure medical imaging software

Eduardo Pinho, BMD Software 20 May, 16:00-17:00 (CEST)

See how to create production-ready software using the Rust programming language, with a quick overview of the language and the presentation of a few use cases involving WebAssembly and medical imaging deidentification.





