

SoNIT : Sonography Nerve Instrument Tracking

Innosuisse project aiming to enhance real-time images during sonography-guided surgeries using artificial intelligence.

Realization

HES-SO Fribourg - iCoSys

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Keywords

- Image Analysis
- Video Tracking
- Sonography
- Machine Learning

Our skills

Expertise in developing deep learning algorithms and applications for the segmentation and tracking of anatomical and surgical structures in ultrasound videos.

Partnership

- SPIRECUT SA
Prof. Frederic Schuind
- Universität Bern

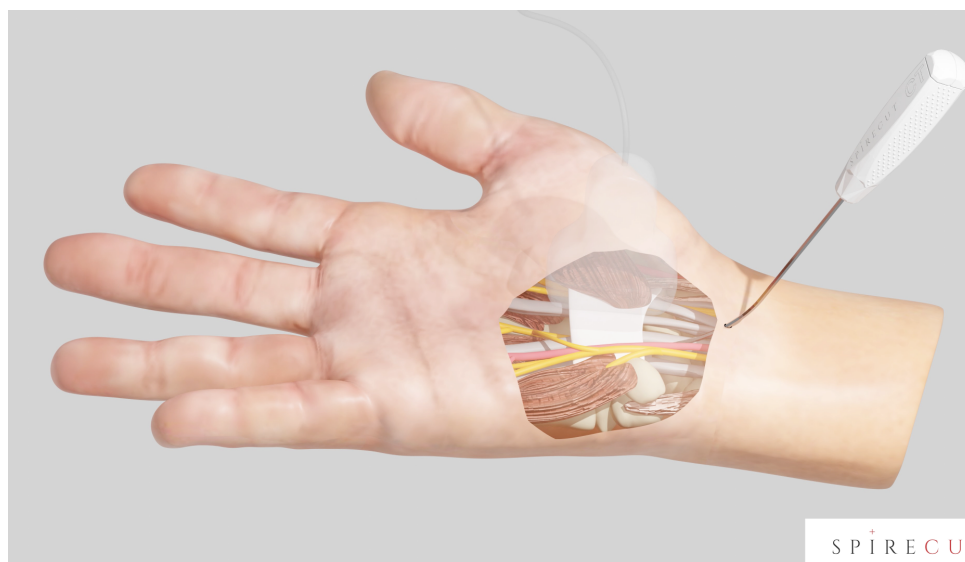
Funding

Innosuisse – Swiss Innovation Agency

Schedule

01.03.2025 - 29.02.2028

This project brings together two research teams specializing in deep learning, computer vision and human-machine interaction, in close collaboration with a group of hand surgeons and medical specialists focusing on carpal tunnel syndrome.



Together, we design and validate methods to enhance ultrasound images in real time during sonography-guided surgeries. Specifically, we highlight the cutting instrument and anatomical structures at risk of iatrogenic lesion, i.e., terminal nerve branches via advanced computer vision and deep learning.



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