PRESS RELEASE

We prefer to show our story, rather than tell it!

SMARTsurg project has come a long way since the beginning, in 2017, and you can now see it on your own through the videos on our **YouTube channel**. The videos are **rich in content** and short in length, making it easy for everyone to watch and understand them. The objective of this action is to promote the progress and updates of SMARTsurg project in a meaningful and integrated way.

Below you will find a sequence of the videos' releases, while by clicking on them you will be redirected on our channel to watch them.

SMARTsurg Project

The animated video presents the overview of SMARTsurg system, including the smart glasses, the master system that tracks finger-thumb positions and wrist rotation, the attached surgical instruments into haptic devices, the wearable exoskeleton and the fingertip haptic feedback platform. Click here to watch it.

SMARTsurg 3F tool and hand tracking

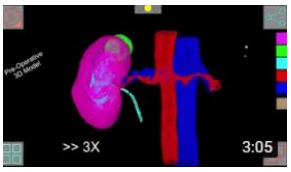
The video presents the control of the da Vinci surgical instruments, using a novel wearable controller. The wearable controller, that contains inertial measurements units and hall effect sensors, is used to teleoperate a four-dof surgical instrument. Click here to watch it.

Human-Robot Interaction, Fingertip Haptic Device & Active Constraint Enforcement in Robotic Surgeries

This video demonstrates the remote center of motion in teleoperated Minimally Invasive Surgery (MIS). Both static and moving remote centers of motion constraints are implemented to validate the proposed approaches in the simulation. Click here to watch it.

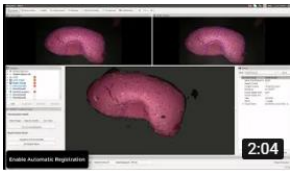
SMARTsurg Graphical User Interface

The user interface of SMARTsurg includes a GUI in Augmented Reality to help the surgeon in locating targets (e.g., tumours) and critical structures (e.g., nerve bundles and vessels). Moreover, it enables surgeons to select regions to be avoided, and it uses computer vision to track the soft tissues. Click here to watch it.



SMARTsurg Augmented Reality

The video shows the Augmented Reality Toolkit developed during the SMARTsurg to register the pre-operative model to the intra-operative model for Augmented Reality navigation. Click here to watch it.



Further details could be found on the project website: https://smartsurg-project.eu/
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Subscribe to our Youtube channel here.

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