

Artificial intelligence in the service of medicine

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The AIMED project, with the support of Fondazione VRT, brings the technological and research results based on artificial intelligence developed at FBK to radiologists and neurosurgeons based in Trentino

AIMED is an acronym and stands for “Artificial Intelligence for MEDicine”. The project received financial support from Fondazione [VRT](#) and is part of the FBK research line aimed at developing methods and technologies to help neurosurgeons in the treatment of the brain tumor called glioma – a treatment of excellence of our local area.

An example: in the last days of 2020 the neurosurgeons of the Santa Chiara hospital in Trento, coordinated by Dr. Silvio Sarubbo, published with researchers from the FBK neuroinformatics laboratory and other colleagues in Rome, Montpellier and Chicago, a [scientific work](#) that presents an innovative tool for planning brain tumor surgery.

During the operation, the surgeon electrically stimulates the awake patient's brain cortex at multiple points, and the exact locations, along with the patient's reactions and responses, are annotated to create an atlas.

This information is valuable to plan surgery on future patients as it allows the doctor to **identify the areas of the brain where main cognitive, sensory and motor functions that needs protection are located.**

The software system tool thus helps planning the removal of the **brain tumor** as it identifies patients' eloquent cortex areas from the electrical stimulation data collected in previous surgeries.

The algorithms and software that adapt the atlas to new patients are about to be made available as a service on the project's server, purchased with previous funding from the VRT Foundation. The AIMED project allows doctors to experiment with these new technologies through laptops and tablets that we are purchasing thanks, again, to the support of the Fondazione VRT.

The goal in the first months of the project is to obtain an evaluation of the system by doctors, with the aim of launching it on the market.

In the video below, Emanuele Olivetti, a researcher at the “[Digital Health & Wellbeing](#)” research center at Fondazione Bruno Kessler, talks about it.

PERMALINK

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