Special Issue

Novel Advances in Computer-Assisted Surgery

Message from the Guest Editor

The field of computer-assisted surgery is constantly expanding in terms of image acquisition, image processing and analysis, surgical planning and robotic surgery. The ultimate purpose of these different processes is increased surgical results. It is without a doubt that the future of surgery will also be shaped by artificial intelligence, which will find its way in all aspects of patient management, from decision-making to assisting procedures and ultimately replacing the surgeon as we know it today. This Special Issue aims to gather papers regarding the use of machine learning (ML) and artificial intelligence (AI) in the perioperative scene, including image acquisition and processing; the use of the tridimensional reconstruction of medical images in surgical planning; simulators (computer-aided surgical simulation); enhancing operative view with various methods; the use of ML and AI in reducing/eliminating human limitations and error; and remote surgery.

Guest Editor

Prof. Dr. Valeriu Surlin

1. Department of Surgery, University of Medicine and Pharmacy of Craiova, 200349 Craiova, Romania
2. First Clinic of Surgery, Craiova Emergency Clinical County Hospital, 200642 Craiova, Romania

Deadline for manuscript submissions

closed (28 February 2023)

Applied Sciences

an Open Access Journal by MDPI

Impact Factor 2.5
CiteScore 5.5

mdpi.com/si/76300

Applied Sciences
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
applsci@mdpi.com

mdpi.com/journal/applsci

Applied Sciences

an Open Access Journal by MDPI

Impact Factor 2.5
CiteScore 5.5

mdpi.com/journal/applsci

MDPI

About the Journal

Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

Editor-in-Chief

Prof. Dr. Giulio Nicola Cerullo
Dipartimento di Fisica, Politecnico di Milano, Piazza L. da Vinci 32, 20133 Milano, Italy

Author Benefits

Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility:

indexed within Scopus, SCIE (Web of Science), Ei Compendex, Inspec, CAPlus / SciFinder, and other databases.

Journal Rank:

JCR - Q2 (Engineering, Multidisciplinary) / CiteScore - Q1 (General Engineering)