

Resource Summary Report

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biolab - Bioengineering and Bioimages Laboratory

RRID:SCR_008029

Type: Tool

Proper Citation

biolab - Bioengineering and Bioimages Laboratory (RRID:SCR_008029)

Resource Information

URL: <http://www.bio.dist.unige.it/>

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Description: The Bio-Lab is a Bioengineering and Bioimages laboratory and it's part of DIST (Department of Computer Science, Control Systems and Telecommunications-University of Genoa). The main research activities of the Bioengineering Laboratory are related with the acquisition, processing and rendering of bioimages with the aim of exploring the links between structure and functionality of biological systems (images of cells in optical confocal microscopy) and for diagnostic and therapeutical processes (images of the human body in Magnetic Resonance, Computerized X-ray Tomography, ultrasounds and other modalities). The main research activities of the laboratory are related to:

- Bioimages: medical/biological image analysis and visualization methods are investigated, with a deep attention to the applications development for the driven therapy.
- Bioinformatics: in this field, advanced technologies and knowledge related to production and treatment of gene expression microarray distributed data have been implemented.
- Tissue Engineering: this research activity is addressed to the development and testing of biomaterials, coupled with adult stem cells for the in vivo bone formation.
- Neuroinformatics: the interaction between results of functional neuroimaging and brain computational models has been studied.

Among the equipment of the Bioengineering Laboratory there are of particular interest: 2D-3D cell culture bioreactor systems and a virtual reality platform for the interaction person-bioimages, medical data and 3D models. The Bio-Lab also manages a GRID node belonging to the international GILDA network, which is built by 6 server, for a total amount of 12 CPU, 7 GB RAM and 500 GB Disk Space. Additionally, the confocal laser is a very essential tool in this lab; it is a scanning optical microscope with a hardware/software framework virtual reality-like for the interaction person-bioimages, with stereovision, and equipment for head tracking and pointing. The Bio-Lab collaborates with several research institutes and centers, such as the National Institute of Nuclear Physics, the National Research Council, and the Advanced Biotechnology Center (visit Research area or Project area in the web site). Promising collaborations are also on going with different technological companies in the national scenario. The laboratory has also been involved in several international and

national projects funded by the European Commission and MUR. Specifically, it is involved in several projects funded by the European Commission projects related to the area of Health Care Telematics, with special reference to emergency telemedicine.

Synonyms: Bioengineering and Bioimages laboratory, biolab, DIST BioLab

Resource Type: topical portal, data or information resource, portal

Keywords: gene, bioengineering, biological system, biomaterial, biotechnology, cell, computerized x-ray tomography, computer science, confocal laser, human body, magnetic resonance, microarray, neuroinformatics, nuclear physics, optical confocal microscopy, optical microscope, telecommunication, telematic, telemedicine, therapeutical, tissue, ultrasound, neuroimaging

Resource Name: biolab - Bioengineering and Bioimages Laboratory

Resource ID: SCR_008029

Alternate IDs: nif-0000-10526

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Ratings and Alerts

No rating or validation information has been found for biolab - Bioengineering and Bioimages Laboratory.

No alerts have been found for biolab - Bioengineering and Bioimages Laboratory.

Data and Source Information

Source: [SciCrunch Registry](#)

Usage and Citation Metrics

We have not found any literature mentions for this resource.