



Aula Seminari Dipartimento di Scienze di Base e Applicate per l'Ingegneria (SBAI)

Sapienza Università di Roma

Via A. Scarpa, 16

<u>Data</u> 19/09/2014

<u>Ora:</u> 11:00

Seminario

Non-invasive Intra-Cranial Pressure (ICP) new studies, new ideas, new hopes

Relatore

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In the seminar will be discussed the ICPMI method. This consists in fixing an electric strain-gage chip externally to a small region of the skull bone and monitoring bone deformation as a function of ICP.

A new simple, cost-effective minimally invasive system using electrical strain-gage sensors applied externally to a small region of the skull bone, with appropriate measuring system developed in Brazil (Sapra2010), has been proved to be an advantageous new method to monitor quantitatively, in real time, variations of the ICP. Though not still an absolute method since signals are expressed in voltage units, the system, since the ICPMI has been proved to be linearly correlated with ICP absolute measurements of invasive techniques, it may have important applications in animal research related to time dependence of ICP for investigations of pharmacodynamics or time dependent phenomena like in epilepsy ictus, migraine and many others. It is being further developed to be an absolute calibrated system in mmHg.