BIO-302 Complex Systems and Organisms

Coordinator: Dr. Sergio Iglesias Parro (siglesia [arroba] ujaen [punto] es)

The Complex Systems and Organisms research group is a multidisciplinary team engaged in the study and solving of problems ranging from basic matters pertaining to Biomedicine and Neuroscience, to the interaction of (human and non-human) organisms. It understands that science is collaborative and in this regard it adheres to the Open Science ethos.

The group has full equipment in place for registering and analyzing EEG-ERP signals. The equipment is a 32-channel Brain Vision actiCHAMP, with a 32-channel Brainamp amplifier + 8 AUX channels, several 32-channel caps with Acticap active electrodes and an ERP StimTracker interface for sending markers. It also has software for reviewing and analyzing obtained signals (Analyzer2 and BrainVision Analyzer).

Research lines

- Neurocomputational models for the study of awareness
- Linear and nonlinear analysis of biosignals and their application in the field of severe mental illnesses
- Infodemiology
- Fractal analysis in neurological diseases
- Systems biology in neurological diseases, mainly autism, multiple sclerosis and spinal cord injury
- Systems biology in endometrial receptivity and blastocyst implantation
- Application of cooperative play theory to the analysis of microarrays

Related services and products

- System for the automatic classification of olives
- Image analysis
- Analysis of experimental data
- Systems biology - Modelling
- System dynamics - Modelling
- Specialization courses in Complex Systems and Organisms.

Spanish website: https://bit.ly/2CqXvBb