

● NEUROTECHNOLOGY



INTRODUCTION

The research group Neurotechnology (Neurotec) is focused on Expert Systems and Knowledge Management and Knowledge Extractions based on techniques of Computational Intelligence and Medical Image Analysis, especially Neuroimaging. These systems are involved in the developments realized in their research topics.

RESEARCH TOPICS

- Knowledge management in Neuroscience using Ontologies and Web 3.0.
- Algorithms and Neuroimaging studies.
- Neuropsychology, dementia and psychiatric disorders.
- Cognitive and motor rehabilitation.
- Big Data y population modeling.
- Neuronavigation.
- Neurodevices. Assistive technologies.
- Applied neuroscience: Neurodidactics, neuropedagogy, neuromarketing, etc.

SCIENTIFIC-TECHNICAL SERVICES

- Computational Intelligence and Knowledge extraction applied to evidence-based medicine (EBM).
- Algorithms, cloud platforms and brain medical image processing.
- Neuroimaging analysis for structural quantification.
- Design and manufacture of neuronavigation devices.
- Signal processing from BCI devices (Brain-Computer Interface).
- Intelligence systems development to support clinical decision-making process.
- Modelling population of pathologies.
- Big data and mining data for extraction of markers in pathologies.
- Design and implementation of gestural interfaces and voice commands, using natural language processing.

RESEARCH GROUP LEADER: LOURDES DE LA PEÑA FERNANDEZ
PAI CODE: TIC225

CONTACT

PHONE: 952 137 424 | FAX: 952131630

E-MAIL: lpf@uma.es

ADDRESS: Facultad de Medicina. Campus Teatinos, s/n. 29071- Málaga