

Bio medical data analysis - EUR

ECTS
3 crédits

Composante
Sciences Fondamentales et Appliquées

Présentation

Objectifs

The objectives are to master imaging system technologies, the medical

data acquisition, their analysis but also the design and deployment of

technical and algorithmic solutions. Artificial methods based advanced

methodswill notably be developed in given biomedical contexts

Heures d'enseignement

Bio medical data analysis TD 30h
- EUR

Pré-requis nécessaires

Python, data analysis

Programme détaillé

Part 1 : understanding the main medical and biological imagers (magnetic

resonance imaging, microscopy, histology, scanner,) as well as the specific

algorithms: cellular image analysis, histopathological data analysis,

polarimetric biological tissue study, biomedical data mining, registration

and reconstruction of heterogeneous biomedical data ...

Part 2 : Control of processings and analyses of data collected by connected objects

and biomedical sensors tools: semiotic analysis, multisensor context,

Design, analyses and deployment of data analysis and machine learning

solutions that allow a set of quantitative and/or qualitative characteristics

to provide solutions for diagnostic assistance or understanding

phenomena