Laboratory of Medical Imaging

Introduction

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Medical Imaging

Lectures: prof. Michał Strzelecki

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Laboratory:

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Laboratory

- goals: **recognize, learn and teach colleagues how to use freely available software to processing and analysis of biomedical images (data)**

- classes: **total 42 h** (originally: 14 weeks x 3h + 3h at Department of Microelectronics and Computer Science)

  13 weekly meetings (2h) + 5 x 3h meetings
  - regular classes: every Wednesday, lab. 215 (hours: 10^{15}-12^{00})
  - course classes 5 meetings in lasts two weeks
    (late hours e.g. 17^{15}-20^{00})

- each group (2 students) is obligated to present progress every week during regular classes (presentation)

- final mark will based on preparation of the **course explaining basics of operation for chosen software (3h)** (powerpoint presentation with notes!!!)

course participants: colleagues and invited guests (e.g. prof. Strzelecki) **will be carrying out** exercises in front of computers

Proposed software

1. MRICro group (mricron, mricro, ezDicom, MRIConvert, MRIcroGL, dicom2nii) http://www.cabiatl.com/mricro/
1. MIPAV
   http://mipav.cit.nih.gov/
1. MedINRIA
   http://www-sop.inria.fr/asclepios/software/MedINRIA/
1. FSL (possible 3 persons in group)
   http://www.fmrib.ox.ac.uk/fsl/
1. itk-snap
   http://www.itksnap.org/pmwiki/pmwiki.php
1. ParaView
   http://www.paraview.org/
1. amide
   http://amide.sourceforge.net/

Data for analysis

- there are some data bases of medical images on the Internet
- it is not allowed to work on data from software examples
- share information about found databases among colleagues
- if two or more software's have the same capabilities select **the same data set** and **compare results** of analysis by means of different software's

- **Let's start:**
  a) Select piece of software to work with (each group different)
  b) download it (put information about download process in your final presentation, if registration is needed or not,…)
  c) read the license file (is it for commercial/academic/private purposes? Who, where and how can use the software?, place it in final presentation)
  d) …