Universal Medical & Biomedical Imaging Science Center (UMBISC)

A project presented by Ali Mohammad-Djafari

Main objective:
Creation of a great Medical Imaging center with 3 main departments:

- Medical
- Scientific
- Engineering

Main idea:
A place where medecins, scientific, engineers, and industrials can work together.
Medical Imaging Center

Main Idea:
✓ Buy 2 examples of each of the existing commercial and laboratory imaging systems
✓ one for immediate medical use in Medical Dept. and
✓ one for research and engineering (Scientific and engineering Dept.)
Medical Imaging Department

The main objective of this Department is for everyday use of medical imaging by Doctors:

- Radiography, CT scan
- MRI, fMRI
- PET, SPECT, Gammagrapy
- Angiography, Mammography
- Ultrasound Echography, Sonography
- Thermography
- Compound PET-CT
- Microwave imaging
- Electrical Impedence Tomography
Scientific Imaging Department

Main objective:
Developments of new imaging systems and improving the performances of the existing ones:

- CT scan (Dose Reduction objective)
- MRI, fMRI (Processing and knowledge extraction)
- PET, SPECT, Gammagrapy (Improving resolution)
- Ultrasound Echography (real time 3D)
- Compound PET-CT (Data and Image Fusion)
- Microwave imaging (Reconstruction and starting on medical use)
- Electrical Impedence Tomography (Reconstruction and starting on medical use)
Main objective:
Design of new imaging systems issue of, and in cooperation with Scientific Dept.

- New CT scans with lower dose
- New improved MRI, fMRI
- New PET, SPECT, Gammagraphy, Angiography
- New Ultrasound Echography (real time 3D)
- New microwave and EIT imaging systems
- New compound PET-CT with new Data and Image Fusion technics
- New Radiotherapy facilities
Strategy

- Contacts with governmental deciders
- Contacts with different universities
- Contacts with possible sponsors
- Contacts with industries (national and international)
- Contacts with some other Iranians living in Europe and US to collect supports both financial and scientific
- Contacts with medical imaging systems suppliers and negociation for buying 2 examples of each system.
Starting point

- Creating a web page for the project
- Listing of the interested peoples
- Requesting each person to write down the way he can be implied (Interest Expression)
- Creating working groups (Medical, Biological, Imaging Science, Engineering, Industrials, Capital Investors, Managers,...)
- Initiating the first scientific projects by defining M.Sc. and Ph.D. Subjects
- Make a point in 3 months : Mars 2015