MedSIP : "Digital mammographic image database for medicine and machine learning research"

Description: The goal of the MedSIP (Medical Signal & Image Processing) project is the creation of a prototype database of high-resolution digital mammographic images, as well as the development of a web portal for the Internet, to provide public access to the database for everyone. This study covers an important need on several research areas, related to medical databases for breast imaging, in terms of quality and specialization, as well as the public availability. Similar public-access breast imaging databases include either low-quality digitized (from film) images or proprietary data formats that make their use cumbersome and limited in scope. In this database, each image is accompanied with a full clinical evaluation record and fully annotated findings (calcifications, masses, asymmetries, etc). These images, as well as the annotation data, can be used by researchers as raw material for studies related to medical imaging and machine learning (automated detection/diagnosis) in mammography. The web portal and the public access to this mammographic database constitute perhaps the first such attempt in Greece for the creation of high-quality research material for future studies in these areas. The project was originally funded by the
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(2010).

Keywords: mammography, breast imaging, automated diagnosis, image processing, medical imaging, x-ray, dosimetry, automated control

Material and Results:
Presentations and dissemination work:

1. Latsis Foundation – Symposium for the presentation of funded research works for 2010 (5/5/2011)
   http://dx.doi.org/10.5281/zenodo.59604
   [presentation / poster 1 / poster 2]
2. 37th Annual Greek Medical Conference 2011 (EPIS-37), Athens, Greece, 17-21st May 2011 [abstract]

Official publications:

- MedSIP : Original Annotated Database of High-Quality Digital Mammographic Images Publicly Available to the Research Community (summary in Greek)
  N. Dimitropoulos, H. Georgiou, M. Mavroforakis, P. Bouboulis, H. Mavroforakis

37th Annual Greek Medical Conference 2011 (EPIS-37), 17-21 May 2011 @ Athens, Greece.

[abstract / presentation / poster 1 / poster 2]

Notice: The DigiMammoDB project is currently under development. Publication of all the material and results related to this work is limited due to IPR limitations, until the last stages of the project by the end of 2010.Any material that is accessible here is granted under the terms of the copyright notice included in this page.