

I-ImaS : "Intelligent Imaging Sensors for Industry, Health and Security"

Description: The I-ImaS project aimed at the development of a new generation of sensors that will create a break-through in the diagnostic quality of X-ray images in health, industry and security. The new sensors will incorporate adaptive imaging technology. This allows optimization of the recorded information while at the same time minimizing the radiation dose or duration of the examination - in practice the ideal imaging system. I-ImaS was a three-year-plus project (Mar.2004-May.2007), extended by two months for a total of 38 months, funded by the European Commission under the Sixth Framework Programme, Priority 3 NMP "New generation of sensors, actuators and systems for health, safety and security of people and environment" (NMP2-CT-2003-505593).

Keywords: textural features, image processing, medical imaging, x-ray, dosimetry, automated control

Material and Results:

Presentations and work conducted by CTI/UoA (Harris Georgiou):

1. I-ImaS, Workpackage-3: **Update on current progress and preliminary results for the on-chip processing** (Amsterdam, NETHERLANDS, 26th–27th May 2004).
<http://dx.doi.org/10.5281/zenodo.59509> [download: [pdf](#)]
2. I-ImaS, Workpackage-3: **Update on current progress and report for deliverable D.8: "Translating information signatures to a sequence of well-defined processing functions"** (London, UK, 12th–13th October 2004).
<http://dx.doi.org/10.5281/zenodo.59510> [download: [pdf](#)]
3. I-ImaS, Workpackage-3: **Update on current progress and report for deliverable D.8: "Translating information signatures to a sequence of well-defined processing functions"** (Oslo, NORWAY, 14th–15th February 2005).
<http://dx.doi.org/10.5281/zenodo.59513> [download: [pdf](#)]
4. I-ImaS, Workpackage-3: **Enhancements to the image pre-filtering and image restoration options, and preface to x-ray camera geometry** (Athens, GREECE, 29th–30th September 2005).
<http://dx.doi.org/10.5281/zenodo.59515> [download: [pdf](#)]
5. I-ImaS, Workpackage-3: **Improved Adaptive Control by Anticipatory and Reinforcement-Learning options for the I-ImaS Controller Logic** (Trieste, ITALY, 10th–11th January 2006).
<http://dx.doi.org/10.5281/zenodo.59516> [download: [pdf](#)]
6. I-ImaS, Workpackage-3: **Summary of patent-related issues regarding Image Analysis and Controller Logic** (Ioannina, GREECE, 23rd–24th May 2006).

<http://dx.doi.org/10.5281/zenodo.59519> [download: [pdf](#)]

7. I-ImaS, Workpackage-3: **Update on remaining issues regarding Image Analysis and Controller Logic** (London, UK, 22nd–23rd November 2006).

<http://dx.doi.org/10.5281/zenodo.59520> [download: [pdf](#)]

8. I-ImaS, Workpackage-3: **Concluding remarks and future prospects for improvements** (London, UK, 21st–22nd May 2007).

<http://dx.doi.org/10.5281/zenodo.59521> [download: [pdf](#)]

Technical reports co-authored by CTI/UoA (Harris Georgiou):

- I-ImaS, Workpackage-3: **S. Theodoridis, D. Cavouras, H. Georgiou: Preliminary Analysis Report and Proposed Design** (technical report, draft/unofficial version, 02-Mar-2004).

<http://dx.doi.org/10.5281/zenodo.59541> [download: [pdf](#)]

- I-ImaS, Workpackage-3: **Translating information signatures to a sequence of well-defined processing functions** (deliverable report D.8, draft/unofficial version, 23-Feb-2005).

<http://dx.doi.org/10.5281/zenodo.59542> [download: [pdf](#)]

- I-ImaS, Workpackage-3: **Different approaches to providing intelligence in the sensor/imaging system** (deliverable report D.9, draft/unofficial version, 04-May-2005).

<http://dx.doi.org/10.5281/zenodo.59543> [download: [pdf](#)]

- I-ImaS, Workpackage-3: **RIEDS – Radiographic Imaging Evaluation and Documentation System** (technical report, draft/unofficial version, 14-Mar-2008).

<http://dx.doi.org/10.5281/zenodo.59544> [download: [zip](#)]

Notice: All the material and results related to the work under the I-ImaS project were not publicly available until the end of May 2009 due to IPR limitations. Nevertheless, all the files available here are only unofficial/draft versions, prepared almost entirely by the author (Harris Georgiou). Thus, they can now be accessed publicly without any restriction whatsoever, under the copyright notice included in this page.



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I-ImaS: Material and Results

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