



Tele-Imaging in Medicine

www.mitime.org

June 2005

Edition: 2



TIME kick-off meeting and Steering Committee Meeting, April 1, 2005, the Royal Society, London

The first **project meeting** took place on April 1st, at the Royal Society in central London (UK). All the partners of the project came including from China, Greece, UK, and Latvia. During the project meeting, each partner introduced their own research fields and plans for the ongoing TIME project. In the steering committee meeting, representatives gave many valuable comments and suggestions on the project, especially the first year ac

Video Conferencing

Video conferencing is a one-to-one meeting tool via internet. It is quick and easy to get connected for people in any part of the world. Right now this facility has been implemented and is in operation in London partners of TIME project. It is expected all the partners will implement this facility for he future discussion of the project. Details on how to make it work please contact [Dr. Stephen Batty \(s.batty@mdx.ac.uk\)](mailto:s.batty@mdx.ac.uk), the project researcher.

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Clockwise from top left:

Prof. Theodore Kalamboukis(Greece), Dr. Stylianos Hatzipanagos(UK), Dr. Stephen Batty(UK), Prof. Shuqian Luo(China), Prof. Elgis Stumbris(Latvia), Prof. Qiang Lin(China), Dr. Robert Pleass(UK). Mrs Lin(China), Prof Luo(China), Dr. Xiaohong Gao(UK), Ms. Ping He(China & UK), Dr. John Clarke(UK), Dr. Richard Bayford(UK).

This activity has also been published in two Chinese journals. One is [Internal Medical Devices](#). The other is [China conference proceedings in 2005](#).

Video conferencing is in operation.

Progress on MIT2005

There are 60 submissions for the conference to be held in Wuyi Palace, China August 16-19, 2005. About 50 abstract have been accepted for oral presentation. Preparations are under way. Delegates

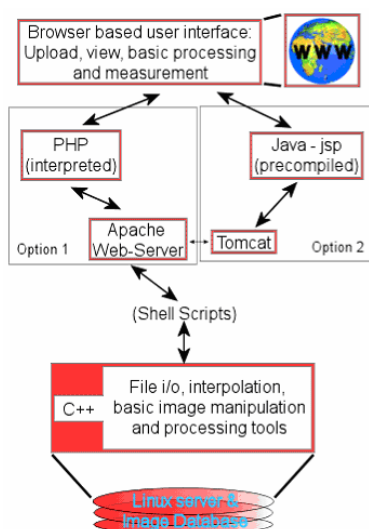
are working on their full papers which should be submitted before July 1 (www.mitime.org).

DICOM Image Viewing and Retrieval

Stephen Batty

In this TIME project, a prototype of tele-imaging system will be developed. Two possible preliminary technical architectures for a future tele-medicine, and retrieval system have been formulated. One is a web-based design, which employs a browser based user interface accessible from anywhere with an internet connection. Images can be uploaded to the server, opened and then viewed (in all 3 dimensions simultaneously). The other is a less detailed description of a deployable application that enables the same basic image processing tools (such as brightness, contrast, equalization and ROI definition and measurement). Added functionality is the ability to share images, which are stored locally, with anyone else with the same application. This would be enabled using a “host file” and keeping a record of downloads.

Current development time is being spent on creating the basic file i/o, for a variety of medical imaging formats including DICOM. This is carried out using C++ and is fundamental to any of the future tele-medicine and retrieval software systems. The diagram of possible technical architectures is presented below (s.batty@mdx.ac.uk).



Architecture based upon web interface.

Latest algorithms, and developments will be posted on the internet at <http://image.mdx.ac.uk>. Any input,

such as ideas, sample images, or raw source code is welcomed. Contact Dr. Stephen Batty, Email: s.batty@mdx.ac.uk, Tel. (+)44 208 411 5245.

Colour Imaging

Ping He

Telemedicine involves transferring images/photos over the network systems. It is therefore essential to keep colour accurate. In co-operation with Museum of Domestic Design & Architecture (MoDA) (<http://www.moda.mdx.ac.uk/>), we are working on a project of accurate colour reproduction. This will include camera modelling.

The colour of the digital photo will not change, but the colour of the digital photo is not a completely match with the original colour of the wallpaper. We chose a digital camera, the CANON-1D-MARKII and by finding it's colour formula through experimentation and by using this formula, we can revise the colour of the photo to make it match the actual colour of the wallpaper.



The viewing cabinet at MoDA where the images taken. Left: Miss Zoe Hendon from ModA, Right: Ping He.

Contact information: Ms Ping He, ganheji@yahoo.com.cn.

Visit of University & Hospital of Geneva

The European partners, **Dr. X. Gao** (UK), **Dr. J. Clark** (UK), **Prof. T. Kalampoulas** (Greece), and **Dr. E. Stumbris** (Latvia), visited University & Hospital of Geneva, Switzerland on June 10, 2005 to learn more about their telemedicine systems. They were shown and demonstrated various research projects carried in the hospital. The host person was Dr. Henning Muller (left in the picture shown below), who arranged one-day programme for the visit.



Meeting with Prof. Antoine Geissbuhler, the head of the service.



Discussion of geneva's medical image archiving system



Meeting with RAFT project researcher.



Meeting with OrisiX group researcher.



Demonstration of their HONcode Accreditation project.

More information is on <http://>

www.mitime.org/time.htm.

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