Datasheet of the IKTA4/128 project

I. *Cardiovascular diagnostics on the Internet*

Project start: January 1, 2002, duration: 29 months.

Amount of support: KHUF 33 000, total project cost: KHUF 90 000.

Project leader: *Vörös József*
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Project URL: <*http://www.meditech.hu*>

II. Consortium members (number of members = **2**, the first member is the project co-ordinator)

no	name	support	total cost
1.	MEDITECH Ltd.	KHUF 20 000	KHUF 60 000
2.	Hungarian Academy of Sciences, Research Institute for Technical Physics and Materials Science, Dept. of Bioengineering	KHUF 13 000	KHUF 30 000

III. Public presentations

No presentation is available.

IV. Goals of the project

Cardiovascular diagnostics on the Internet

Meditech develops noninvasive cardiovascular monitoring systems. Their application in telemedicine constitutes a new challenge, as inexperienced persons might carry out parts of data collection, evaluation and medical interpretation procedures. To provide a solution, we wish to re-design our existing products, extending the system with an artificial intelligence layer. This would ensure proper quality and competent use, requiring no specific expertise from either patient or medical personnel. We wish to incorporate wireless communication and a comprehensive web-based software environment, providing remote availability of all device features for telemedical application. This will significantly improve reliability and ease of use, making effected products more competitive, too.

It has been a key concept in the system design to find a solution satisfying the needs of private users, small and large organizations alike. Therefore, the software environment is fully scalable from single-user version to full-featured installation, including web-based support of multi-center clinical studies.

In the proposed project, Meditech would realize device and software related development tasks, whereas MFA would research and develop the methodology needed for automatic pre-processing and interpretation of collected biomedical data.

As far as we can judge, there is currently no marketed product comparable to the proposed system in complexity, scalability and web-based design, satisfying the specific needs of small organizations, and delivered as an accessory of related monitoring products.

Goals

1 Fully scalable system, appropriate for single-user and small-organization environment

2 Remote web-based programming and downloading

3 Secure database with password-dependant access levels

4 Secure access to data through the web or in e-mail

5 Platform-independent web-based software environment requiring no on-site installation

Measurement data accessible for evaluation as active web pages with standard web browsers (e.g., Internet Explorer)

6 Monitoring devices connected with standard wireless protocols (Bluetooth or IrDA) to modem, mobile phone or directly to the computer

7 Possibility of automated device calibration (quality control)

8 Personalized, automated patient warning capabilities related to diagnostic and therapeutic procedures

9 Timely presentation of diagnostic information through the internet

V. Project results (in case of finished projects)

The project is not finished.

VI. Data on consortium members (number of members = **2**)

1. *MEDITECH Ltd.* (co-ordinator)
   URL: <*http://www.meditech.hu*>
   Support for the co-ordinator: KHUF 20 000, and its total cost: KHUF 60 000.
   Contract number: .
   Team leader: *Vörös József*
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2. *Hungarian Academy of Sciences, Research Institute for Technical Physics and Materials Science, Dept. of Bioengineering*
   URL: <*http://www.mfa.kfki.hu*>
   Support for the consortium member: KHUF 13 000, and its total cost: KHUF 30 000.
   Contract number: .
   Team leader: *Kozmann György Dr.*
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