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ABSTRACT

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NAME OF PROJECT *(in Polish and English)*	Software of doctor-patient interconnection in a remote access mode for a system of family medicine

ABSTRACT *(maximum 1200 characters)*

Surveillance and monitoring of a person's health indicators is an important task of family medicine at any its level: prevention, diagnosis, treatment and rehabilitation (restoration or improvement of health). During diagnostic and therapeutic care, patients usually require direct contact with doctors in a medical institution. On contrary, while restoration or improvement of their health, patients carry out doctor's orders at home and rarely attend physicians in clinics (e.g. only in the prescribed control terms).

Modern information technology (IT) can implement a new approach to the doctor-patient interaction at the stage of prevention and restoration of health, based on the organization of a virtual connection between them (by creating Web resources with an appropriate content). In this case, a user-patient can independently measure and monitor the vital physiological parameters of the body by means of residential electronic medical devices available to him (blood pressure monitors, blood glucose meters and other gadgets). The data can be stored in device digital memory and then transferred to the PC's memory through a special interface or telecommunication lines, as well as be input into a computer database in a manual mode. For this purpose, you need to use special software which is included, for example, into the software package IINANS (interactive information-analytical system with the organization of individual virtual connection between family doctors and their patients in a remote access mode). With the help of this software (in the form of web resources), a user-patient can establish and periodically replenish virtual "blog of his/her own health" during a long time. Family doctors can monitor the indices of physiological or emotional state of their patients in a remote access mode, periodically visiting their Web home-pages with "health diaries" and, if necessary, adjust the

assigned preventive or rehabilitative measures. The system has a modular structure with differentiation of access rights, and provides physicians with extended possibilities. They can both monitor the indices of the "health diary" and carry out their analysis, calculating the required integral estimates with the use of the built-in system analytical calculation modules.

Software system IINANS is organized as a client server architecture based on Google Web Toolkit (GWT).

Communication between client and server is made via RPC (Remote Procedure Call, RPC). It delivers data to the client as soon as they are calculated, facilitating the work of numerous users.Communication with the database is implemented through an open library mysql-jdbc-connector.

The system can also include methods for assessing a personality pattern, level of anxiety, aggression and depression. These factors make it possible to identify predictors of many psychosomatic diseases (e.g., hypertension, migraine, diabetes) and implement the best methods of their prevention. For this purpose, the survey may include such test methods as MMPI, Questionnaire of Spielberg-Heineken, Bas-Darke and Assinger.

KEY WORDS		
Software	medical systems	virtual connection
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