FACS, построить модель для базовых мимических выражений УЖМ. Дальнейшие исследования будут направлены на использование такой параметрической модели для анализа и трехмерного моделирования эмоциональных мимических проявлений на лице носителя жестового языка.

Литература.

1. Зайцева Г.Л. Жестовая речь. Дактилология: Учеб. для студ. высш. учеб. заведений / Зайцева Г.Л. — М.: Гуманит. изд. центр ВЛАДОС, 2000. — 192 с. — (Коррекционная педагогика).
2. Електронний ресурс Max Planck Institute for Psycholinguistics. Режим доступа: http://www.lat-mpi.eu/tools/elan/.
3. Miller F. P. Facial Action Coding System. / Miller F. P., Vandome A. F., McBrewster J. – Beau Bassin, International Book Marketing Service Ltd, 2011. – 80 p.

Fedyuk R.S.
FarEastern Federal University
The study design methodology of intelligent buildings

Sustainable Building, Energy-efficiency Building, Intelligent Building, Bioclimatic Architecture, Healthy Building - a trend in architecture and engineering buildings, which until now has not have strict definitions, scientific principles are just, but the directions are implemented in a large number of construction projects, developments in the areas of urban and rural areas. Implemented in developed countries but not in Russia. However, even in developed countries, the construction of such buildings is still an elite pastime. The explanation for this may be the following: - low cost of conventional energy sources without regard to the

interests of future generations, and caring for the environment contributes to wasteful use;

- consumers are not willing to pay for a significant increase in the quality of the environment of comfort, including in this concept is a complex of modern technical facilities management, control and communications (life support systems and building management);

- science is not formed on the microclimate of the premises and its contents "is not overcome by the broad masses" of consumers, and still care team.

«Intelligent Building» is a product of the modern development of existing automation systems in buildings in the area: complex optimization of resource utilization, improving flexibility, configuration and reduce total cost of ownership; integration with a wide range of technological and telecommunications equipment; simplification («humanizing»), the interaction with the user.

Of fundamental importance is the understanding that each element of the intelligent building must be an intellectual element that is used in its design methodology, which will be "forced" to strive for this item to the choice of the optimal solution in operation, but, of course, taking into account the influence of other elements to it and its impact on other elements. It is clear that this refers to the methodology of system analysis. The result is the ability to create intelligent building elements of the intellectual in different directions, and then combining them through a systematic analysis.

One component is an intelligent building management systems, heating ventilation and air conditioning - the subject of our specialty. In world practice, including Russia, have accumulated considerable experience in designing HVAC systems as part of intelligent building. Virtually no information on the development of predictive element of the building HVAC system is operated.

The author proposes the following methodology for the design of intelligent buildings

1. The basis for the development of the intellectual element for HVAC industrial buildings is structural diagram of the information that defines a set of control objects, sensors, control devices, including computers and other computer management, executive and control devices, establishing the necessary information between them. 2. When designing the intellectual element should proceed from the general requirements of automated process control systems for precision and speed of operation input from the control object of measurement information to the structure of the communication device control computer with the object of control, the parameters of the normalization of the equipment, switching, transmission, and signal conversion, methods to combat interference, to the algorithms and programs, the procedures for communication and information transformation. 3. To control the thermal regime of an industrial building is the most appropriate management structure, in which the individual parameters of the thermal regime governed by the relevant circuit devices, and control computer, processing the measurement data, calculates and optimizes the installation. With such a management structure ensures sufficient reliability of the system as a whole, since the efficiency of the system is conserved and the control computer failure. In addition, if such a structure may be a simpler control computer, reduced requirements for its speed and other characteristics, it is possible the practical implementation of more efficient algorithms for optimization of the process, requiring a greater amount of computation. Measured unregulated environmental parameters are temperature and humidity of outside air, wind speed and direction, barometric pressure, solar radiation, temperature and water pressure in the supply pipeline network heating, temperature and vapor pressure in

the heating network. The measured output parameters, which characterize the thermal conditions are air temperature, relative humidity, air velocity in the working areas, CO_2, etc.

4. Measured output parameters, which directly or by calculation we can determine the effectiveness of control: temperature and water pressure in the return pipes, heating water flow, chilled water and steam consumption.

5. As adjustable parameters that are measured respective actuators are considered the supply air temperature, the temperature of hot water after a shunt pump, the amount of fresh air.

6. For areas in which the number of alarms may be generated combustible gases and vapors that form explosive mixtures, gas detectors should be installed, interlocked with the light-signaling devices, indicating that the presence of room air concentration of a substance, which reaches 20% lower explosive limit (LEL), or automated analyzers, semi-detached from the device to start the systems used for emergency

ventilation in the presence of this concentration. 7. The software system should consist of a computer operating system, providing the opportunity to work in real time, on-line, and a software package system. Programs on the system must be ensured the possibility of translation, editing, linking and debugging. In the operating system should be included tools associated with the service time, ie, the expectation of a given point in time to start the process and management of communication devices with the object, as well as tools to work with files stored in external memory computers.

8. The software package should be submitted as separate interconnected routines. The large sub-segment should be to accommodate them in a given amount of computer memory.

9. The software package is designed to manage the entire system. It is divided into optimizing the program, the main work programs and utilities system maintenance.