

Development of Systems for Computer Sign Language Translation for Deaf People



Goal:

Development of computer sign language translation for communication support between deaf and hearing people in Russia and Republic of Korea. The project is aimed at support of biolinguistic needs of deaf people in all the aspects of their life activities: education, medicine, police, business, mobile communications, internet etc.

Importance:

About 10% of population of any country are hearing-impaired people. There is a problem of lack of human sign language translators (hearing people who can speak sign language, most of them are parents of deaf people). The gradual replacement of human sign language translators by computer translators is aimed at solution of the communication problem between deaf and hearing people in both countries: Russian Federation and Republic of Korea.

Novelty:

- 1) Translation of the Russian (Korean) language into the sign language and vice versa is based on the connection of appropriate grammatical systems;
- 2) Translation of a Russian (Korean) text into the sign language and vice versa is based on the criteria of the most ergonomic translation;
- 3) Visualization system of the spoken Russian and Korean sign languages is based on the avatar control by a human translator into the sign language and is applicable both to stationary systems and mobile devices and Internet-services.