

Abstract for Video Proceedings

A New Bridge for Health Care: BEDSIDE WELLNESS SYSTEM

Hiroshi Oyama¹⁾, Mieko Ohsuga²⁾, Hitoshi Okamura¹⁾, Isao Mizukura²⁾

1) National Cancer Center Hospital,

2) Mitsubishi Electric Corporation

We believe that technologies of virtual reality can provide a new type of satisfying daily life, especially for disability and/or ill patients. The National Cancer Center Hospital and Mitsubishi Electric Corporation have been conducting virtual reality research aimed at supporting the care of the minds and bodies of patients. One of the fruits of this program is the Bedside Wellness System. This system uses interactive VR technology to provide mental relaxation and rehabilitation. About 100 degrees wide field-of-vision is possible using three liquid-crystal screens. To promote the feeling of movement, step wise change of the viewpoint of motion-pictures and the sound of footsteps are given being synchronized with the patient's steps. The presentation includes not only images but also a fresh wind which carries the smell of the forest and the sounds of small birds, a brook and trees. In order to evaluate the safety and effect of this system, vital signs are measured in real-time while the patient was experiencing walking. We are evaluating its usefulness and clinical trial will be opened. In the future, we are considering expanding the system for use over a network, so that two or more people can meet and chat while walking in a virtual environment.

Keywords: bedside wellness system, health care, mental relaxation, rehabilitation, virtual environment