

Effective Exercise Instruction System Using Virtual Human (Demo)

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Abstract

This study aims at developing an aerobics exercise instruction software for personal use by introducing an instruction program best fit to the physical conditions of respective exerciser. The software uses the combination of virtual instructor (virtual human) and *Karvonen* method in order to develop a comprehensive personal aerobics exercise instruction software. *Karvonen* method is an algorithm of relationship between the movement of the virtual human and exercise intensity. In this study, its effectiveness is verified and confirmed.

The study is mainly focused on the development of synchronization technique between the speed of animation figures' movement for controlling exercise intensity and speed of the sound output, which is the most important technique in the application of the study result into practical use.