



Measurement of human body motion and gaze during intubation (TSME-ICoME-2019-0116)

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Abstract

In medical field, various techniques are required for surgeries and treatments. At present, in order for unexperienced doctors to acquire techniques, they use materials such as textbooks and videos, and practical education in simulation form using a human body model simulator. However, the introductions are sensory instructions by skilled doctors, such as how to put strength and how to handle tools. Also it is difficult for unexperienced doctors to immediately master the technique. Also, from the problem of lack of doctors and the medical malpractice, it is necessary in the medical field to initiate the techniques to the unexperienced doctors more accurately and efficiently. Therefore, in this research, it aims at quantitatively evaluating the difference between the experienced doctor and the unexperienced doctor by measuring the human body motion and gaze movement during intubation. In the experiment, the motion of intubation were measured with 12 motion capture cameras and a gaze measuring device. Then, the characteristics of human motion were analyzed from the obtained data.

Keywords: Human motion, Eye tracking, Motion capture, Intubation.