Abstract

Human motion detection and analysis are important in many medical and dental clinics. Mandibular movements are very complex and difficult to detect by naked eyes. Detecting mandibular movements will aid in proper diagnosis, treatment planning and follow up. Many methods are utilized for measuring mandibular movements. However, most of these methods share the features of being very expensive and difficult to use in the clinic. Using computer vision systems to track such movements may be considered one of the fundamental problems of human motion analysis that may remain unsolved due to its inherent difficulty. However, using markers may greatly simplify the process as long as they are simple, cheap and easy to use. Unlike other tracking systems, this system needs a simple digital video camera, and very simple markers that are created using black-white images that can be stick using any cheap double-sided bonding tape. The proposed system is considered reliable and having a reasonable accuracy. The main advantages in this system are being simple and low cost when compared with any other method having the same accuracy.
References

- Stuart CE. Diagnosis and treatment of occlusal relations of the teeth. Texas Dent J 1957; 75: 430-5.

Index Terms

Computer Science

Pattern Recognition
Keywords
Motion analysis  image processing  mandibular motion  computer vision