Multifunctional Smart Denture System

Technology description

Approximately 20 million Americans wear full or partial dentures.Because dentures are only supportedby tissues in the oral cavity, not anchored into the jaw bone, keeping them in place can pose a challenge: At least half of denture wearers experience problems with fit.In collaboration with University of Florida researchers, UB dental researchers have developed a multifunctional smart dental prosthetic device that uses real-time wireless signals to monitor and transmit information about denture fit and other health aspects in a noninvasive manner. The device consists of a full or partial denture with several microsensors that detect gaps between the denture and oral tissue. Stress and strain, pressure, movement and temperature are also assessed. Sensors can monitor pH, glucose and various chemicals found in saliva to aid diagnosis of oral diseases, HIV, cancers and diabetes. Wireless transmitters send information from the device to user-friendly software that allows healthcare professionals to analyze all collected data.

Institution

State University of New York

Inventors

Carlos Munoz-Viveros
Professor and Chair
Restorative Dentistry
Yong-Kyu Yoon
Assistant Professor
Electrical Engineering
Gloria Kim
Marc Campillo-Funollet
Post Doctoral Associate
Restorative Dentistry
Xiaoyu (kevin) Cheng
Ph.D. Candidate

联系我们

叶先生

电 话：021-65679356
手 机：13414935137
邮 箱：yeyingsheng@zf-ym.com