Thai university backs virtual reality simulation technology

Mahidol in Bangkok opens advanced training centre at Faculty of Dentistry

BANGKOK, Thailand: The Faculty of Dentistry at Mahidol University in Bangkok in Thailand has introduced computerised simulation technology to its dental programme. Since June, students at the faculty have been trained in the new Dental Simulation Centre equipped with 120 DentSim units, which was opened on the school’s 45th anniversary.

With more than 600 undergraduates, the faculty is currently one of the largest dental learning institutions in the South-East Asian country. Prof. Passari Nsilak, dean of the faculty, said that the new technology, developed and marketed by US manufacturer Image Navigation, is going to enhance the learning experience for students through the simulation of a full clinical environment.

By using DentSim simulators, students will be able to develop their cognitive and motor skills in dental surgery, as well as other fields, such as implantology, periodontics and endodontics, he said.

The school is estimated to have invested several million US dollars in the technology. The DentSim system is based on GPS technology and uses a camera to track a set of LEDs that send infra-red signals, giving students live feedback in a virtual simulation of a treatment area that includes a manakin with an adjustable head and life-like mouth.

The system has been used in dental education since 1998, when the University of Pennsylvania installed the first units in its School of Dental Medicine. It is backed by 56 studies and over 100,000 hours of student learning, the manufacturer said. According to DentSim figures, over 400 DentSim units are currently in use worldwide, primarily in dental schools in the US, Japan and Taiwan.

“By integrating state-of-the-art technology, advanced expert performance teaching methodology and an innovative curriculum, Mahidol is setting a new standard for dental education,” Image Navigation CEO Lawrence Oatfield commented in view of the latest acquisition.

Virtual methods have increasingly found their way into dental education. Along with SimDent, a few other systems are available on the market, including the Simodont trainer by Dutch technology provider Moug, which is based on high-fidelity flight simulation technology and used by a number of dental schools in Australia (see page 5, DT Asia Pacific, Vol. 11, No. 1+2.)