

Fujitsu Develops Golf-Swing Analyzer Featuring Latest Sensing Technology

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"ETGA Swing Lesson" images (iAppli mobile phone application)

Fujitsu today announced that it has codeveloped a sensing technology that accurately measures the body movements of a person carrying a sensor-equipped mobile phone. The technology was developed in collaboration with Mr. Kajiro Watanabe, the president of Sensing Control Lab and a professor at Hosei University in Japan. The first commercialization of this technology, "ETGA Swing Lesson", is a mobile phone application that analyzes golf swings under the guidance of professional golfer Mr. Tadashi Ezure.

Using the mobile phone's built-in sensors, the application gathers motion data, which is then fed into a 3D motion sensing engine to analyze and assess the path of the user's [golf swing](#) and provide advice based on professional golfer Mr. Tadashi Ezure's golf principles. It also allows

users to compare each swing against their past best recorded swings, making it a full-featured swing-diagnosis program. In addition, the application can connect to a number of related online mobile services, including a variety of services planned with Golf Digest Online Inc.

By equipping mobile phones with different sensors developed in-house and using them to measure data from the user's body, Fujitsu is working to offer users "human-centric solutions" that contribute to their health, sports activities, and lifestyle. The company is also actively developing other services and mobile phone capabilities that incorporate specialized knowledge from various fields.

Fujitsu plans to include the new application on its forthcoming mobile phone products. Visitors to the Fujitsu booth at CEATEC JAPAN 2009, opening October 6, 2009, at Makuhari Messe, will be able to try it out for themselves.

Fujitsu took an early interest in using mobile phones for human sensing. In September 2003, the company offered the world's first [mobile phone](#) equipped with an accelerometer-based pedometer in its Raku-Raku Phone III series.

The golf-swing analyzer incorporates a 3D motion sensing engine that measures the inclination and rotation of the waist for a fixed period of time. It picks out discrepancies in each pattern of motion, and detects distinctive aspects in these patterns to analyze the user's pattern of motion. This technology was developed jointly with Mr. Kajiro Watanabe, who is the president of Sensing Control Lab Co., Ltd. and a professor at Hosei University in Japan.

By applying this algorithm to patterns of motion in golf swings, it can detect a user's form and pick out distinctive aspects in each swing to diagnose areas that the user should improve.

Overview of "ETGA Swing Lesson"

After receiving data from the phone's built-in sensors, the 3D motion sensing engine measures the golfer's swing and assesses 16 checkpoints of the swing.

Assessment criteria are based on the "Ezure Method", a set of swing principles devised by professional golfer Mr. Tadashi Ezure, head of the Ezure Tadashi Golf Academy (ETGA), which has produced a number of well-known golf professionals. The result is a thorough swing lesson, as if the user had participated in a private session with Mr. Ezure himself.

The application can also upload swing data to the Internet. Fujitsu has its sights set on rolling out an online service in the future in which multiple players can simultaneously participate.

In collaboration with [Golf Digest Online Inc](#), Fujitsu plans to launch a "Golf-Swing Check Site" (tentative name) online service under "ETGA Swing Lesson".

By uploading data collected using "ETGA Swing Lesson", users will be able to access a number of services not offered by the stand-alone application. Furthermore, Fujitsu plans to codevelop the service with Nifty Corporation in order to offer advanced features that take advantage of Nifty's network expertise.

Source: Fujitsu

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