Unimas team develops Qiblat indicator app

KOTA SAMARAHAN: Dr Ng Giap Weng of Universiti Malaysia Sarawak (Unimas) and his team has developed an award-winning Qiblat indicator app for smartphone users.

The Mobile AR-Solat app had won the Gold Medal at the British Innovation Show last year.

The main focus of this team at the Centre of Semantic Technology and Augmented Reality (CoeSTAR) at the Faculty of Cognitive Sciences and Human Development was researching and developing Augmented Reality applications.

Augmented Reality is a form of technology that interfaces the real world with virtual content, thus creating a mixed reality.

In line with the global development of information and communication technology, Unimas continues to research and produce a variety of sophisticated technologies to address this demand.

According to a statement released recently, the Qiblat indicator is a specialised compass, especially useful for Muslims to locate the Qiblat direction which points towards the Ka'abah in Mecca to perform prayers.

"The direction is indicated by marks on the perimeter of the dial, corresponding to different cities, or by a second pointer set by the users according to their own location," the statement elaborated.

"To determine the proper direction, one has to know with some precision both the longitude and latitude of one's own location and that of Mecca," it added.

The Mobile AR-Solat automatically identifies the location of the user and then generate the coordinators of the Qiblat, the statement further stated. In the outdoors, the Qiblat coordinator is generated using the integrated global positioning system phone antenna while indoors require Wi-Fi or a network provider.

One special function of the Mobile AR-Solat, the statement said, is the ability to see the Qiblat direction being superimposed over the real environment.

"To utilise this function, the user needs to open the camera view. When the user looks at the surroundings through the camera view, he is able to see an arrow superimposed on the background showing the bearing of the Qiblat," it said adding that it also enables the user to request for the prayer time.

The application will calculate the five different prayer times for the day based on the location of the device, the time, date and the position of the sun.

"This information will then be displayed on the screen," it said.

Another additional function of the Mobile AR-Solat was information on the direction and distance to the most interesting contents located nearby such as famous mosques, restaurants and hotels.

"This is also displayed as images superimposed on the environment," the statement added.

"This effectively turns Mobile AR-Solat into a potent location-based search and discovery service with an augmented reality element," the statement said. The combination of augmented reality with cell phone technology represents a dramatically new development in applications for Androids and smartphones.

People interested to learn more about augmented reality can visit the team at the 9th International Conference on Cognitive Sciences 2013 (ICCS2013) to be held at Hilton Hotel from Aug 27 to 30.

For further information on the conference, visit ICCS website at www.iccs2013.org.