## Love or loathe crowds, you'll like this app

SMU lab's program enables users to find out if a place is packed or empty

By AMELIA TENG

CONSUMERS may soon be able to zoom in on where the promotions and crowds - are in a shopping mall, phones.

A lab at the Singapore Management University (SMU) is doing such research, together with partners such as Changi Airport, Sentosa and Capita-Malls Asia, where these services could mapped. he used in the next few years.

the 4.5ha SMU campus, where 10 engineers from the lab have created Smudhow crowded restaurants and study

them - to detect phones in the area and track the whereabouts of stu-

Students with the app can see how crowded different parts of the school are through a heat map, "locate" by tapping an app on their smart- friends, see which study rooms are empty and receive promotions from

> All 98,400 sq m of SMU's floor area in all its buildings - except the administration building - have been More than 800 SMU students have

This technology has been tested on downloaded the app since its launch in September last year.

Mr Kenneth Fu, assistant director dy, an app that helps students see of business development for SMU's LiveLabs Urban Lifestyle Innovation Platform, said the top problems that The program uses wireless access students faced in school were that points - SMU has more than 500 of they could not find empty places to



LiveLabs research engineer Le Gia Hai (left), 28, with SMU students A. Arun Kumar, 22, Pearline Vijayakumar, 21, and Lee Zhe Han, 23, who helped test Smuddy, a student-centric location-based app, PHOTO; DESMOND LUI FOR THE STRAITS TIMES

eat in, or study rooms to study or will allow retailers, building and exhihave meetings in

"The app lets us see which rooms are free, but it'd be better if we can book them through the app," said Mr A. Arun Kumar, 22, a second-year

business student The lab is collaborating with payment service provider PayPal to explore ways of letting eateries on campus take orders from students over the app

The next step, said Mr Fu, is to make the technology more accurate, by integrating more ways to detect people via devices such as camera sensors and pressure pads that work like seathelt sensors, "These technologies

bition planners to better plan mall layouts and understand real-time crowd

patterns," he said. "For instance, why are so many people gathered in one place? How long do people stand in front of a

screen showing commercials?" These are questions being investigated by LiveLabs, one of two major projects launched in 2012. The other project undertaken by StarHub involves developing services and applications for mobile subscribers

The \$50 million funding for both projects is from StarHub, SMU and the National Research Foundation. ateng@sph.com.sg

