Researchers from the Singapore Management University’s Living Analytics Research Centre have developed two mobile applications to enhance visitors’ experience in a large leisure setting such as a theme park or museum.

The first application is a dynamic route planner to provide visitors with an itinerary based on personal preferences, queues and walking distance. Called the “User Route Guidance”, it is linked to the “Attraction Queue Monitoring & Intervention (aQMI) portal that monitors visitor movements and queues at various attractions. When the waiting time at a particular attraction builds up, the operator can intervene by sending alerts to visitors about other attractions. This is to reduce the length of the queues and divert heavy traffic to other areas which are less built up.

Designed for Apple iOS devices, this application was developed in collaboration with Carnegie Mellon University. The researchers also partnered Resorts World Sentosa to use Universal Studios Singapore’s data for analysis and testing.

The second application is designed for Android devices and comprises functions like a visitor itinerary and a live map for navigation. The live map shows the current location of the visitors and suggests a route to the next recommended attraction. Alternatively, users can also use augmented reality to help navigate in a theme park.

Both technologies were developed by Prof Lau Hoong Chuin, Mr Fan Chun Pong and Ms Elizabeth Lim from Singapore Management University’s Living Analytics Research Centre. Their research was funded by NRF through the International Research Centres in Singapore (IRC@SG) funding initiative, under the Interactive Digital Media Strategic Research Programme.