



## OUSL ROUTE GUIDANCE NAVIGATION MOBILE APPLICATION

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The Open University of Sri Lanka is the premiere open and distance learning institution in Sri Lanka. The daily activity schedule of the university is published on notice boards by the Colombo Regional Centre along with the locations where these activities are held. All students registered with the Faculty of Engineering are given an activity diary at the time of registration for the degree programme. The activity diary contains course related details such as the type of the activity, the date and the time, without the venue of the activity being held. The information is given course-wise and the students have to filter the activities per day according to their registration.

Not knowing the location of an activity before arriving at the university makes it challenging to find the location and becomes a problem if the student is late. A person will take an average time of 15-17 minutes to walk from the Nawala entrance to Narahenpita entrance as shown in Google maps approximations.

As a solution to the above mentioned scenario this research aimed to develop a software system that will handle activity schedules and provide navigation instructions inside the university premises. The system consists of two main components a mobile app and a web application. Both components use a MySQL centralized database. The mobile application is developed using android technology and uses GPS technology with Google maps to guide students to class rooms. Some additional features such as checking of the upcoming schedules, all schedules and notices of updated activities are provided as well.

The web application is used to update schedules, classroom locations, change requests and is developed using web development technologies such as PHP, MySQL and Laravel framework and the web frontend uses HTML, CSS and Javascript. The web portal can be accessed by lecturers and the relevant administrative staff. The web portal does all CRUD operations of maintaining information of the solution where database updates are made.

The total solution will enable the students to know the locations of their activities before coming to the university and will provide navigation instructions to find the venue of the activity in a more personalized manner.

Keywords: Navigation, Mobile App, Web Application, Location

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