**Chi 2016 Student Design Project**

**Project Topic**

SMU campus navigation app specifically designed for persons with physical handicaps or limitations.

**Examples of existing apps**

**Ldn Access** is a smartphone app that helps people with disabilities to easily find where there are step-free access ramps, usable toilet facilities and other services for the disabled. The main menu of the app allows you to choose from Attractions, Hotels, Places to Eat, Entertainment, and Transport. It also provides general information on accessible parking and toilets.

**Axs map** is an app where everyone could share all the accessible places that they know and all this information is put on a map and you can access it on the web and mobile phones. So you can search for accessible places and review them on their entry ways and bathrooms. So people can easily find the places where they can eat, shop and everything else.

**WheelMate** lets wheelchair users to locate wheelchair-accessible toilets and parking spaces. The WheelMate app currently has more than 30,000 locations across 45 countries – and more are being added every day. Almost 7000 people have downloaded the app.

**Real problem:**

1. Parking

Shows all the available parking spot(handicap parking spot), and choose closest available parking spot to the destination.

2. Shortest, safest route from point A to point B(that contains ramps and automatic doors)

Show you the shortest and safest route to the destination .

3. Location of points of interest(eg: washrooms and computer labs, caffe)

These places would be in the default menu since of great importance.

**Stakeholders:**

1. SMU campus with a physical disability

Fred Smithers Centre

2. People with sports injuries

Nurse and doctor of sports team

3. Visitors of SMU campus

1. Student center(new student)

2. Conference organizer of SMU in summer

4. Staff of the Fred Smithers Centre

**Question:**

1. How long did it take you to find a classroom you never had a class in before
2. How do you usually come to school?
3. How often do you drive to school
4. How long does it takes you to find a parking spot
5. When you park, how far do you usually park away from your class?
6. Do you know the closest elevator from any location you are in?
7. Does it take you a long time to figure out the closest elevator, automatic door to you?
8. Given any random position how long does it take you to find the nearest point of interest?(eg: washrooms and computer labs, caffe)
9. Have you ever used bus or accessible taxi service? If yes, how long did it take you to find the number?if no, would you consider using it?
10. Is the entire campus accessible?Did you experience any inconvenience on campus?
11. How accessible are the facilities?

**Way to collect data**

1. Interview
2. Simulation ourself as a handicap to live as usual, and write report after
3. Journal to find what challenges the object face