**ACCESIBILITY OF THE PROJECT**

Step 1: Download the maps from Openstreetmaps.com and save it with the ‘.osm’ extension.

Step 2: Type the following command in the Linux terminal to convert ‘.osm’ file into ‘.xml’ file which can be given as input to the SUMO software.

netconvert --osm-files map.osm -o map.net.xml

Step 3: Now, copy the osmPolyconvert.typ.xml in SUMO\_HOME/data/typemap/ and copy it to the folder where you put all the files. (MAP)

Step 4: Now type the following commands in your terminal.

polyconvert --osm-files map.osm --net-file map.net.xml --type-file osmPolyconvert.typ.xml -o map.poly.xml

python $SUMO\_HOME/tools/randomTrips.py -n map.net.xml -r map.rou.xml -e 100 -l

Step 5: Now, create a new file (to be named as map.sumo.cfg) and paste the following lines

<configuration>

<input>

<net-file value="map.net.xml"/>

<route-files value="map.rou.xml"/>

<additional-files value="map.poly.xml"/>

</input>

<time>

<begin value="0"/>

<end value="100"/>

<step-length value="0.1"/>

</time>

</configuration>

Step 6: Exporting to NS2 from sumo trace to ns2, here is the step to do

Open terminal and type the following commands,

sumo -c map.sumo.cfg --fcd-output map.sumo.xml

python /home/srivatsan/sumo-0.26.0/tools/traceExporter.py --fcd-input map.sumo.xml --ns2config-output map.tcl --ns2activity-output activity.tcl --ns2mobility-output mobility.tcl​

This will generate three tcl files (map.tcl, activity.tcl and mobility.tcl). Among this activity.tcl might not be needed, but mobility.tcl file is mandatory)

The generated guindy.tcl have to be modified or altered as per the networking parameters like routing protocol, Mac layer, physical layer, link layer, etc.

TO EXECUTE THE PROJECT:

Step 1: Type the following command in the terminal.

python run.py

This opens the SUMO simulator which shows the simulation of vehicles.

Check the linux terminal which will provide the best route for the emergency vehicle to take.