# Title: Lab.1.Report

## Mahsa.Shayanfar/October 2nd, 2020

### Introduction

The prepared map shows one of the most important traffic problems in Tehran. Simultaneously with industrialization, urbanization and population growth, there is a need to establish large commercial complexes that meet the needs of this growing population.

In this regard, Kourosh commercial complex was opened 5 years ago in the western region of Tehran. This complex, which is one of the largest complexes in Tehran, is located at the intersection of two main highways. Since this is the only large commercial complex in the western part of Tehran, the influx of people to use the shops, cinemas and restaurants of mall creates heavy traffic up to a radius of one kilometer. This issue is one of the important traffic problems in Tehran that different departments are responsible for reviewing and providing appropriate solutions to solve it. Currently, three main solutions have been proposed by the municipality, which are:

* Create a larger parking space
* Increase the working hours of the complex up to 24 hours
* Providing special public transportation services

In the prepared map, the location of Kourosh mall as well as the related traffic zone is specified. The location of the new car parks and public transport station is under review and has not yet been determined.

### Methods

In preparing this map, by choosing the appropriate source map codes from the Leaflet (https://leafletjs.com/examples/quick-start/, 2010-2019), it is possible to examine the different parts around Kourosh Mall (including streets, highways, etc.). A circle with a radius of one kilometer was drawn from the center of the complex to cover the entire traffic zone. Also in this map, it is possible to change the zoom and check other areas of Tehran.

Moreover, In this map, other information is displayed using JavaScript's and HTML codes (w3school.com, 1999-2020), including headings, paragraphs, photos related to Kourosh Mall and the traffic congestion of the surrounding streets, links to Kourosh's website and also Button Tabs. All styles are designed using HTML and CSS codes (w3school.com, 1999-2020).

### Results

Using HTML, JavaScript and Leaflets codes, it was possible to prepare a digital map and implement points with coordinates. The traffic zone was drawn within a radius of one kilometer from the center of Kourosh mall. As can be seen in the map, despite the fact that this complex is located near the main highways and should not create traffic, but because these highways are one of the main ways to evacuate traffic, it has led to their malfunction. The created traffic zone, which covers most of the residential areas, has caused many problems for the residents of the area in their daily transportation. Preparation of this map is useful because by comparing the traffic zone specified in it with the maps that will be prepared in the future and after the implementation of the proposed solutions, we can understand the effectiveness and efficiency of the mentioned solutions.

### Conclusion

Many traffic problems have been created in the western region of Tehran due to the creation and operation of Kourosh mall. Many organizations are involved in providing appropriate solutions to this problem, and several suggestions have been made. In this regard, an attempt was made to prepare a digital map that contains useful information and allows a clear visual representation of the traffic area. By examining this map, it is possible to access different areas of Tehran with a suitable resolution. Also, other useful information such as the link of Kourosh Mall site and various photos of inside and outside view and traffic congestion of the study area are included in this map. This map, in comparison with the future traffic zone maps that will be prepared after the implementation of traffic problem solving solutions, makes it possible to evaluate the effectiveness of these proposed solutions.

### Tables and Figures

In this section, some pictures are shown regarding traffic congestion(Figure 1) , kourosh Mall(Figure 2) , and traffic zone(Figure 3).

|  |  |  |
| --- | --- | --- |
| Figure : Traffic congestion in traffic zone | Figure : Kourosh Mall | Figure : Traffic zone |

### References

* w3school.com.
* *https://leafletjs.com/examples/quick-start*