Intelligent Traffic Light Management System (ITLMS) User Guide

The ITLMS comes with a web-based user interface in order to demonstrate the use of the system to estimate green-light timings at traffic junctions.

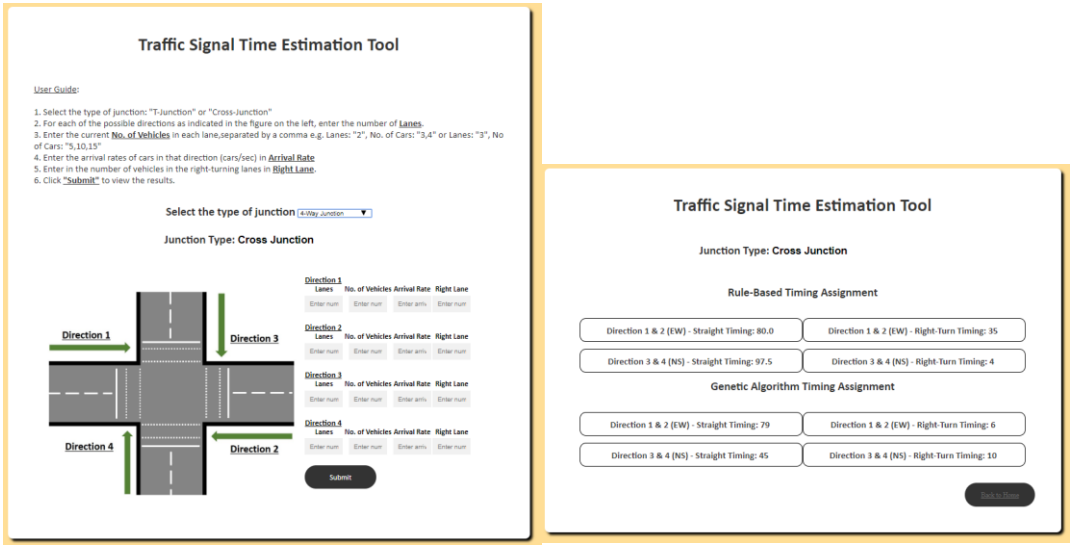
Follow below steps to setup ITLMS:

1. Setting up the Flask Server

- git clone https://github.com/validation7407/IRS-MR-RS-2019-09-22-IS1FT-GRP-Validation7407-ITLMS.git
- Open up command prompt for Windows or Terminal for Linux
- Navigate to the System sub-folder the cloned ITLMS repository folder
- Enter 'python app.py' in order to start the Flask server
- Use your web browser to navigate to the ITLMS User Interface https://localhost:5000

2. Using the ITLMS Demonstration Interface

- Select the type of junction: **"T-Junction"** or **"Cross-Junction"**
- For each of the possible directions as indicated in the figure on the left, enter the number of **Lanes**.
- Enter the current **No. of Vehicles** in each lane,separated by a comma e.g. Lanes: "2", No. of Cars: "3,4" or Lanes: "3", No of Cars: "5,10,15"
- Enter the arrival rates of cars in that direction (cars/sec) in **Arrival Rate**
- Enter in the number of vehicles in the right-turning lanes in **Right Lane**
- Click **"Submit"** to view the results.



Integration with external road traffic sensor systems or other inputs sources can also be done by passing these inputs to the Flask server through a HTTP POST request.