**Assignmnet #2: ON ROUNDABOUT & TRAFFIC SIGNAL DESIGN and ALTERNATIVE**

Due December 14, 2024 11:59 PM

**Instructions**

Assignmnet #2: ON ROUNDABOUT & TRAFFIC SIGNAL DESIGN and ALTERNATIVE ANALYSIS

We have AADT data available for RHD Bangladesh road network. The peak hourly flow data can be estimated from AADT data. Your task is to find a suitable highway intersection preferably among/between national highways; for the selected intersection design a roundabout type of intersection control following the design and analysis procedure covered in the lectures. If there is already a roundabout there compare it with your analysis and design. Produce a labeled drawing of the roundabout intersection showing all the designed features. You may need to use google earth for getting the physical details of the site. Once you have selected your site please post it on the MSTEAM blog in order to avoid duplication of the site by fellow students.

Now,

1. Make an operational analysis of your designed roundabout to find average vehicular delay on each approach using roundabout delay estimation formula.
2. For the same junction and traffic, design a traffic signal timing plan utilizing webster traffic signal formulation and produce the signal phase diagram.
3. For the traffic signal timing plan estimate average vehicular delay for each approach.
4. Now for 30% more traffic volume estimate average vehicular delay for each approach for both roundabout and traffic signal condition. Present a comparative table of average vehicular delay estimate for each approach for existing and 30% increased traffic situation.
5. Comment on choice between roundabout and traffic signal control under existing and 30% increased traffic situation.