**Birla Institute of Technology & Science – Pilani**

**Hyderabad Campus**

**1st Semester 2014-15**

**Software for Embedded systems (CS F424/Cs G523)**

**Assignment-4**

Date of posting: 10th Oct 2014 Last date of submission: 20th Oct 2014 Weightage: 10 marks

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Please note:**

1. This is individual activity.
2. Plagiarism deserves high penalty.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Download latest version of System-C library from systemc.org. Implement the problem discussed in class.
2. Develop a model and implement using system-C for the below specifications.

* A system detects moving vehicles and measures inter-arrival times (IAT) in seconds.
* A short pulse is generated when a vehicle passes by and is input to the system.
* The time between two successive pulses is the inter arrival time (IAT) of the vehicle.
* The system computes and displays the average IAT and no of vehicles passed during last 1 hour.