

**Assignment-4** (20+5) : 5 marks for proper documentation.

Posting date: 25th Oct 2017

Submission Date: 13th Nov;

Demo till: 15th Nov

Do either in group of **2 students**

Implement FIS (Fuzzy Inference System) using METLAB fuzzy logic toolbox and evaluate the performance of a student. The goal is to find the best student based on his/her overall performance. The evaluation criteria are based on the following three input parameters. The output of the system is the performance score of a given student in range [0, 10].

**Inputs:**

- Academics: Performance in academics are measured by CGPA (scale 0-10)
- Sports: Total number of games won or participated
- Co-curricular activities: the number of certificates (participation and winning certificate).

Define carefully the following:

- Linguistic variables to describe all four parameters (3 inputs and 1 output).
- Corresponding fuzzy membership functions.
- Fuzzy rule base that seems to be suitable for the given system.