# **Probabilistic Machine Learning**

(July - December 2022)

# **Assignment 2 (Graded)**

**Evaluation Date:** 11/11/22

## Group E

 Implement Linear Regression using Metropolis Hastings and Hamiltonian Monte Carlo. (Use Stan Packages)

#### Group D

2. Implement Logistic Regression using MH and HMC. (Use Stan)

# Group C

3. Implement Expectation Maximization algorithm

## Group B

4. Implement Hidden Markov Models

## Group A

5. Implement Topic Models with the use of Gibbs Sampling.

Note: Use any Stan package for Python implementation or hmclearn for R. You may consider any simple dataset of your choice for the experiments.