



भारतीय सूचना प्रौद्योगिकी संस्थान गुवाहाटी  
**INDIAN INSTITUTE OF INFORMATION TECHNOLOGY GUWAHATI**

**Machine Learning Lab, M.Tech 2nd Semester**

**Instructions**

1. After completion, you can share the files in mail to Mr. Indrajit Kalita (Or if you use Google Colab, you can share there also).
2. Deadline to submit is 4th April 2022.

**Assignment -8**

1. Consider any dataset that has more than two class labels. You can create your own or download any publicly available dataset.
  - (a) Perform K-Medoid Clustering selecting the best value of  $k$  and taking Euclidean distance as similarity measure. Check your algorithm with the following three conditions
    - i. Maximum number of iterations
    - ii. Highest quality of cluster is reached.
  - (b) Repeat the above question taking Manhattan distance as similarity measure and note the difference between the clusters as compared to that found in Q. a.