MACHINE LEARNING ASSIGNMENT-3

ANS-1-d

ANS-2-d

ANS-3-c

ANS-4-b

ANS-5-d

ANS-6-c

ANS-7-d

ANS-8-a

ANS-9-a

ANS-10-

ANS-11-a

ANS-12-b

ANS-13-Data professionals often use clustering in the exploratory data analysis phase to discover new information and patterns in the data. As clustering is unsupervised machine learning, it doesn't require a labelled dataset. Clustering itself is not one specific algorithm but the general task to be solved.

ANS-14-Graph-based clustering performance can easily be improved by applying ICA blind source separation during the graph Laplacian embedding step.

Applying unsupervised feature llearning to input data using either RICA or SFT, improves clustering performance.

Surprisingly for some cases, high clustering performance can be achieved by simpy performing K-means clustering on the ICA components after PCA dimension reduction on the input data.However, the number of PCA and ICA signals/components needs to be limited to the number of unique classes.