k-means  
 parameter = {"init": 'k-means++', "n\_init": 10,  
 "max\_iter": 300, "tol": 1e-4, "precompute\_distances": 'auto',  
 "verbose": 0, "random\_state": None, "copy\_x": True,  
 "n\_jobs": None, "algorithm": 'auto'}  
 FCM  
 parameter ={"Membership":3,"p":16,"q":1.1}  
 GMM   
 parameter = {"covariance\_type": 'full', "n\_init": 10,  
 "max\_iter": 300, "tol": 1e-3, "reg\_covar": 1e-6,  
 "init\_params": 'kmeans', "weights\_init": None, "means\_init": None,  
 "precisions\_init": None, "random\_state": None, "warm\_start": False,  
 "verbose": 0, "verbose\_interval": 10}  
 BRICH  
 parameter = {"threshold": 0.5, "branching\_factor": 50,  
 "compute\_labels": True, "copy": True}  
 SC  
 parameter = {"eigen\_solver":None, "n\_components":None,  
 "random\_state":None, "n\_init":10, "gamma":1., "affinity":'rbf',  
 "n\_neighbors":10, "eigen\_tol":0.0, "assign\_labels":'kmeans',  
 "degree":3, "coef0":1, "kernel\_params":None, "n\_jobs":None}  
 DBSCAN  
 parameter = {"min\_samples": 5, "q": 1.1, "gamma": 16, "metric": 'euclidean', "metric\_params": None,  
 "algorithm": 'auto', "leaf\_size": 30, "p": None, "n\_jobs": None}  
 AC parameter = {**"affinity"**:**"euclidean"**,  
 **"memory"**:**None**,  
 **"connectivity"**:**None**, **"compute\_full\_tree"**:**'auto'**,  
 **"linkage"**:**'ward'**}